

Industrial Automation Business (IAB)

Contribute to the Advancement of Manufacturing That Will Support a Sustainable Society by Strengthening Solutions

Managing Executive Officer Company President, Industrial Automation Business Company

Motohiro Yamanishi



— You were appointed the president of the Industrial Automation Business (IAB) this year.

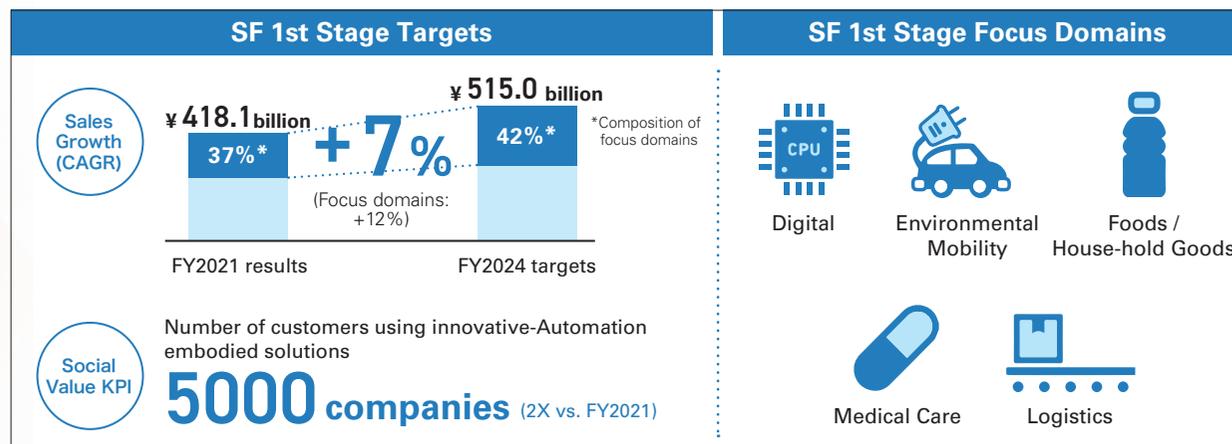
What is your vision?

IAB’s vision under SF2030 is “Enriching the Future for People, Industries and the Globe by Innovative-Automation.” I inherited the assets that support this vision from my predecessor. As the advancement of industries proceeds, it will be necessary to consider the global environment and ensure the satisfaction of people working at manufacturing sites. I believe this is a mission that IAB should fulfill. As companies are increasingly called upon to help realize a sustainable society, resolving our customers’ issues requires that we go beyond improvements in production processes and extend the value proposition to our customers’ supply chain and the entire engineering chain. Through the creation of new value by leveraging what we have accumulated to date, we will contribute to the resolution of social issues by making proposals more rapidly in response to customer needs. As Company President, I will seek to resolve issues together with our customers so as to maximize the value proposition, which in turn will lead to the realization of our vision.

— Fiscal 2022 was the first year of the SF 1st Stage. What kind of year was fiscal 2022?

In fiscal 2022, demand for capital investment in the entire manufacturing industry showed an increasing risk of slowdown in the near term. On the other hand, demand remained steady for our focus market sectors including the semiconductor production equipment, electric vehicles (EVs), rechargeable batteries, etc. In these circumstances, our employees joined forces to overcome the Shanghai lockdowns imposed in the first quarter. From the second quarter onward, we promoted initiatives to strengthen supply capacity to alleviate the heavy order backlog. Despite a challenging year, we were able to shift IAB to a strong growth trajectory, with net sales of ¥485.7 billion and operating income of ¥85.8 billion, both well above the previous year’s figures. The results for fiscal 2022 show that our strategy in SF 1st Stage has been effective.

Since 2016, IAB has been pursuing the “innovative-Automation” concept for innovation in manufacturing as a growth driver. For the various problems that are emerging at manufacturing sites, we contribute to resolving social issues with the OMRON’s unique solutions that fuse the three approaches to innovation



in automation: “integrated (control evolution),” “intelligent (development of intelligence by ICT),” and “interactive (new harmonization between people and machines).”

In SF 1st Stage, as a social value KPI designed to spread not only the economic value of advancement of manufacturing, but also the social value of job satisfaction and consideration for the global environment, we set the number of customers using innovative-Automation at 5,000. The number of customers using innovative-Automation has grown from 900 at the beginning of fiscal 2016 to 3,700 in fiscal 2022, far exceeding the interim target. As a result, the ratio of innovative-Automation solutions sales increased to 35% of sales (16% for fiscal 2016). We will continue to tackle increasingly complex customer issues and refine the value proposition so that more customers will adopt innovative-Automation.

— In order to achieve the goals of SF 1st Stage and thus realize sustainable growth, what are IAB's strengths that you would like to develop, and what are the challenges for IAB?

IAB has three strengths. Firstly, the unique automation technology that combines cutting-edge technologies such as AI, IoT, and robotics with control technology for factory automation, based on the innovative-Automation concept. The number of innovative

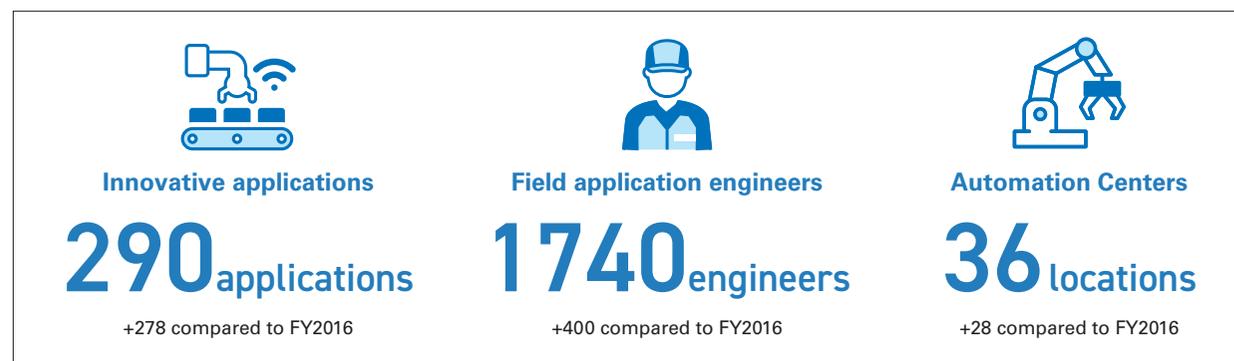
applications we have developed using this automation technology has grown to over 290. They are being used to resolve issues and make improvements at many customer’s sites. We have also recently incorporated advanced digitization technologies such as virtualization and 3D simulation to continuously accelerate the creation of innovative applications. Secondly, based on our own factory practices and customer feedback, the accumulated wealth of knowledge (expertise and know-how) that we utilize to maintain and improve our customers’ manufacturing sites. This knowledge has been organized as explicit knowledge in the form of five different service programs, which are a focus of high expectations, in view of shortage of skilled workers at sites. Thirdly, a service network comprising more than 150 locations in some 40 countries and regions worldwide. Together with our production and logistics bases, we offer high QCDS (Quality, Cost, Delivery and Service) throughout the world as a basic requirement for industrial automation devices manufacturers. Meanwhile, the challenge is to enhance the speed of value transfer by channeling these strengths into solutions optimized for individual customer issues. We have already increased the number of field application engineers engaged in on-site implementation of innovative applications and provision of technical services to more than 1,700 worldwide. Moreover, we

have established 36 Automation Centers (ATCs) where the suitability of our solutions for customer issues can be verified and demonstrated using actual equipment. Furthermore, in SF 1st Stage, we aim to significantly accelerate value transfer by expanding partnerships with system integrators that have unique strengths in each focus industry.

“Innovative-Automation” is a concept indicating the direction in which the value OMRON provides is heading. We are tackling manufacturing innovation based on three approaches: “automation beyond human abilities” to maximize on-site productivity from a new global perspective, “advanced collaboration between people and machines” where people and machines grow and evolve together, and “digital engineering transformation” to seamlessly connect manufacturing sites and facilities in digital space.

— OMRON announced an investment in Kirin Techno-System Company, Limited (KTS) in fiscal 2022. What is your objective?

The objective is to accelerate innovative-Automation in the food and beverage industry, one of our focus sectors. By incorporating KTS’ optical technology and high-speed transport technology, we will create new value, leading to business growth through the realization of safe, secure, and fulfilling food. Co-creation with external partners that possess technology is essential for enhancing execution and value-creation capabilities. We will continue to consider the acquisition of important technologies for enhancing the competitiveness of our business and resolving social issues, as necessary.



— As manufacturing sites increasingly face social issues such as achieving carbon neutrality and human resource shortage, need for services to resolve these issues is increasing. How is IAB's service business progressing?

In recent years, the challenges faced by manufacturers have become increasingly complex as they have been compelled to respond to the growing labor shortage as well as the demand for environmentally friendly business operations, in parallel with conventional initiatives for productivity and quality improvement. To meet these challenges, we must anticipate changes in society and create and offer new services with added value. The "i-BELT" service that utilizes on-site data and the "Industrial Automation Academy (IA Academy)" human resources education service are highly acclaimed.

The former i-BELT is a service for collaborative creation with our customers to resolve their issues by combining customers' knowledge of manufacturing with our improvement know-how and the technologies that we have practiced in our factories. First, we conduct on-site diagnostics of the customer, and then evolve our initiatives together with the customer through repeated monitoring and improvement. Even if customers themselves recognize a problem, without the know-how to identify the cause, it is difficult to resolve essential issues and achieve specific targets for improving on-site issues, such as quality improvement. To provide concrete solutions, our service experts, who are well versed in production sites, work with customers to identify the causes and consider countermeasures using data analysis and AI. I-BELT is highly regarded and is continuing to grow as the core of our service business. Therefore, in order to respond to the many inquiries we receive, we are expediting fostering of field application engineers and service experts who work on the frontline. Furthermore, we aim to realize highly versatile data solutions through synergy with JMDC. We will also

accelerate our evolution as a solution provider capable of creating new added value. The latter IA Academy was launched in April 2023 to address the challenge posed by manufacturing sites lacking sufficient engineers and other human resources to ramp up production. We have systematized the implementation support curriculum, which was previously region-specific, into an integrated educational program so that trainees can receive various levels of engineering education worldwide. Another advantage is that experienced instructors, including engineers in active service, are directly involved in provision of the education. Although this service has just been launched, it has been well received because the curriculum can be customized according to customer needs. We hope to grow it into a service that will drive business growth in the future.

— Energy productivity solutions have proven to be an important concept for many manufacturing sites. Against this backdrop, in the last fiscal year, OMRON became the first Japanese manufacturer to join EP100, an international corporate initiative led by The Climate Group.

During our discussions on initiatives for the realization of sustainable manufacturing, we joined EP100, which aims to double energy productivity. This decision reflected the voices of employees working in the field. Employees at production sites that had been working for many years to improve energy productivity expressed their view that contributing to reduced energy consumption by improving productivity and quality, which are the "essence of production," would motivate them. Salespeople who interface with customers commented that they would be able to take ownership of customers' issues and address them in a more purposeful manner. I feel that, through EP100, management and frontline personnel are united in promoting environmental management and the resolution of social issues.

OMRON will promote carbon neutrality at its own sites to achieve EP100 and contribute to resolving the issues through the OMRON Group's products and services. Energy productivity at IAB's main sites in fiscal 2022 was 111% higher than in fiscal 2021 and 1.3 times higher compared to fiscal 2016, as a result of the progress of vigorous energy saving initiatives of the Ayabe Factory and other efforts. Solutions demonstrated at the OMRON Group's factories are offered as part of the i-BELT service to customers who promote environmentally conscious business operations. By combining IoT, AI analysis, and data utilization, we visualize our customers' factories and help them create sites where productivity and quality are both enhanced.

For example, in a case of co-creation with Okayama Murata Manufacturing Co., Ltd., OMRON analyzed data on particles in the clean room as well as temperature, humidity, and other environmental data. The results of the analysis showed that energy efficiency could be improved by controlling the operation of the air conditioning system in the clean room. With an eye to continuously improving the quality of energy management, Okayama Murata Manufacturing has set a goal of reducing electricity costs by an amount equivalent to 200 tons of CO₂ emissions per year as a first step.

— What are the main features of IAB's business plan and what is the outlook for fiscal 2023?

Demand for capital investment in manufacturing industry as a whole in fiscal 2023 remains uncertain due to inflation and other factors. Nevertheless, customers related to megatrends, including semiconductor production equipment, that is, those whose business concerns electric vehicles (EVs), rechargeable batteries, and solar cells, continue to make capital investments. Furthermore, in view of geopolitical risks and automation spurred by labor shortage, we see potential demand for investment in

diversification of production sites. To seize these business opportunities and expand sales, we are focusing on three initiatives.

Firstly, we are further concentrating our resources on focus industries. Having carefully identified the markets, areas, and customers on which our expectations of strong demand are centered, we have increased our sales resources to a level that is 1.4 times higher than in the previous fiscal year. We have a structure in place that enables us to quickly grasp changes in our customers' needs and propose solutions.

Secondly, we are strengthening strategic investment in value creation through innovative-Automation. To accelerate the creation of highly competitive innovative applications that address our customers' essential issues, regardless of changes in the market environment, we are developing new products by refining our AI/IoT and robotics technologies and enhancing value co-creation activities with our leading global customers.

Thirdly, we are further strengthening the service business. As mentioned earlier, even amid uncertain market conditions, there are evident needs in the service space, such as for energy productivity, quality improvement using on-site data, and human resources training to overcome the serious shortage

of advanced production skills. We will continue to evolve our services and promote solutions for all on-site issues.

— What measures will IAB implement to further increase profitability?

The key to achieving a further increase in profitability is for IAB to accelerate the shift to a solutions business based on innovative-Automation and to unleash the creativity of its workforce. Customers using solutions embodying innovative-Automation have recognized the higher added value inherent in our proposals for increasingly complex issues, which go way beyond the conventional provision of components. In other words, a further increase in the number of customers using innovative-Automation will lead to higher profitability. To accomplish this, it is important to enhance proposal capabilities of individual employees, such as employees engaged in global sales and field application engineers, who provide value to customers. Moreover, we are stepping up investments in IT systems and other environmental improvements and capacity development in order to provide customers with applications and services embodying innovative-Automation. As the progress of inflationary economy increases the value of each individual, we are addressing enhancement of individuals' capabilities as the top priority so that a higher level of human creativity can be demonstrated.

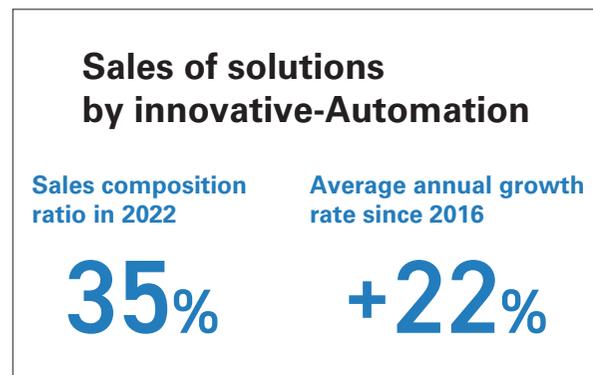
— OMRON is committed to high-cycle management. What results have you achieved so far at IAB?

In a rapidly changing business environment, it is necessary to respond swiftly to solve the various problems that arise at customers' sites. In this regard, I feel that the speed with which value proposition is created and delivered to the site is still insufficient. It is important to implement high cycle management to

meet customer expectations and realize our vision. IAB promotes high cycle management in three major layers. Firstly, initiatives are pursued by executives who exercise leadership as the flag bearers of high cycle management. We are vigorously investing in AI and IT systems to transform our approach to value creation and improve the working environment for employees. In particular, in pursuit of value creation, we accord the highest priority to cultivation of an environment conducive to co-creation. Using software, functions can be added during prototyping in order to quickly respond to customer requests. Whereas in the past we proceeded with development by envisioning every aspect of usage after receiving a request, optimization can now be performed more quickly.

Secondly, high cycle management is promoted by some 1000 managers who exercise leadership at the frontline worldwide. They decide their own themes and promote activities at a higher cycle. Unique initiatives pursued through collaboration between these managers and employees at the frontline are already advancing in several countries. In South Korea, initiatives are underway to revitalize the organization. For example, thanks to the cultivation of a supportive ambience in the workplace, people who take on challenges will receive positive recognition even if the results fall short of the goal and measures have been introduced that encourage employees to collaborate and take decisive action.

Thirdly, we are pursuing transformation of the entire culture of IAB by accelerating the "biological clock" of IAB employees. Whereas there is a tendency to spend too much time on preparation, I encourage our people to get everyone on board and advance boldly without undue hesitation. We cannot achieve stellar results overnight, but I want to seize the initiative and proceed with tenacity while relishing the changing atmosphere of IAB.



**Case
1**

Contributing to Resolving Human Resource Issues in Manufacturing Industry through the IA Academy Education Service

In manufacturing industry, human capital is becoming increasingly important as ESG management attracts growing interest. At manufacturing sites, the evolution of manufacturing has become a pressing issue. For example, it is imperative to keep pace with technological progress and to make each production site self-reliant through greater local production for local consumption. Therefore, shortage of human resources at manufacturing sites, especially technical personnel essential for maintaining and updating production facilities, is an urgent management issue. OMRON has long contributed to resolving human resources issues through the provision of educational services. Combining the experience and know-how of our field application engineers worldwide with the knowledge of the OMRON Group's factories, we provide educational services for approximately 210,000 people annually. In April 2023, we systematized our previous regional curriculum and opened the Industrial Automation Academy (IA Academy), which provides uniform educational services at all our sites throughout the world. Since conventional educational services in the factory automation industry focus on seminars and equipment training for customers who have purchased the company's products, there have been few educational services supporting the development of skilled engineers. IA Academy offers not only conventional training on how to use OMRON products but also engineer education services that are optimized for each company based on a curriculum tailored to the human resources development issues and needs of manufacturing companies. We have established 10 different engineering courses corresponding to the skills required at manufacturing sites. Courses can be selected flexibly from a curriculum systematized to match the level of proficiency and career development

of trainees. Customers use OMRON's IA Academy for basic training of new employees so that they will quickly become able to work effectively and for reskilling operators on the production floor as well as other staff. For companies operating globally, the need to establish a sustainable supply chain geared to local production for local consumption is an important management issue, in view of rising geopolitical risks. Addressing this issue necessarily involves the recruitment and training of excellent engineers at sites around the world. Taking advantage of OMRON's global network, IA Academy offers educational programs in 13 languages at more than 150 sites in 40 countries and regions worldwide. At IA Academy, more than 1700 field application engineers, all of whom are experienced in optimizing solutions and supporting the start-up of equipment at customer sites, serve as instructors for engineer education. Adopting the customer's perspective, they share the know-how for improvement and innovation that they themselves have cultivated in the field. We provide a hands-on, practical learning environment using actual equipment, capitalizing on our Training Centers and 36 Automation Centers around the world. Through IA Academy's provision of educational services, OMRON is tackling the shortage of human resources, one of the most important management issues in manufacturing industry. One of the world's leading e-commerce and logistics companies has selected OMRON IA Academy to provide part of the curriculum for the Apprenticeship Program, its training program for new employees. Through a 24-month training program, this company fosters engineers in-house. The engineers gain advanced expertise in automation, robotics, IT, and other cutting-edge technology fields. As the customer's partner in establishing a long-term advanced engineer training process and for the provision of learning experiences directly linked to on-site operations, OMRON is helping enhance its employees' on-site practical skills.

Employee Comments

Through IA Academy, we respond to various needs, ranging from basic education for engineers to the training of specialist engineers. Training is tailored to the needs of each customer's sites. IA Academy offers a curriculum that is always abreast of technological advances concerning such themes as human-machine coordination, analysis and utilization of on-site data, and cyber security for control systems. We are delighted to see the trainees develop the skills they need to make a difference in customers' businesses and advance their own careers. Going forward, we will continue to provide systematic educational services that address customers' issues while supporting the career development of trainees.

Business Development Manager
OMRON Europe

Gaetano Fusillo

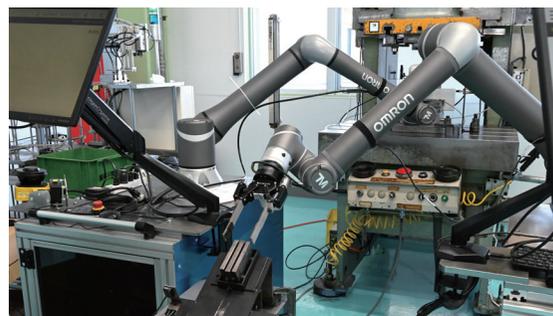


Case
2

Automation by Introducing Collaborative Robots Contributes to the Creation of Safe and Attractive Workplaces

For Japan's broadly based manufacturing industry, shortage of engineers and production workers are becoming increasingly severe as the country's workforce continues to age and shrink, reflecting a declining birthrate and population aging. In order to resolve various on-site issues caused by labor shortage, there is a growing interest in automation employing collaborative robots that can safely work with humans even in limited spaces. To help realize sustainable manufacturing sites, through a partnership with Techman Robot, Inc. (Taiwan) since 2018, OMRON has been offering the TM series of collaborative robots, which can work in the same space as humans without safety barriers. A camera is mounted as standard equipment at the end of the robot arm, and by utilizing landmarks, quick calibration can be performed by accurately determining the position of the arm in relation to the workbench. An intuitive motion program generation function is also available. Presented below is a case study of an automated production line optimized for high-mix/low-volume production by utilizing these collaborative robots. ARIKAWA WORKS .Co., Ltd. designs and manufactures metal molds for weaving machines, machine tools, and semiconductor production equipment, carries out metal press work, and fabricates metal items indispensable for each of these types of equipment. In recent years, labor shortage has made it difficult for the company to hire enough people. The company introduced collaborative robots not only to increase productivity but also to create a more comfortable working environment. OMRON, in cooperation with its local distributor Yamazaki Electric Corp., conducted preliminary verification of press operation automation and quality inspection, and established an optimal support system for introduction of the robots to meet the needs of ARIKAWA WORKS. Expert engineers supported the sophisticated coordination of robots by using safety sensors that detect people and the intrusion of objects, and supported the start-up of

quality inspection by deploying image sensors. The press operation was automated by controlling two collaborative robots. The task of insertion into the die was divided into a series of steps, making it possible for robots to perform the task in a manner similar to that of a human. For quality inspection, a single collaborative robot works in combination with image sensors to capture images of each machined surface, and advanced image processing technology is used to detect defects and sort defective products according to the quality of their surface, thereby contributing to a significant reduction in the workload. We also support process improvement to ensure flexibility for accommodating changes in products and in-house fostering of system integrators for expanded utilization of collaborative robots. Since the introduction of collaborative robots, ARIKAWA WORKS has been able to reduce the time required for simple tasks while increasing the number of personnel engaged in high-value-added tasks. Implementation of innovative-Automation is spreading across the production operations of various companies. We will package our initiatives for supporting introduction of collaborative robots at ARIKAWA WORKS as a solution that our seven branches in Japan will propose to their customers as a way of resolving social issues. Utilizing our extensive knowledge of automation, based on a customer-oriented approach, we will continue to contribute to the creation of comfortable workplaces where people and machines collaborate with one another.



Press working process automated by two collaborative robots

Comments from Our Partner

"I see you are still making things by hand." That is what a student who was interested in joining our company said to me during a visit to our factory, a comment that prompted me to endeavor to create a more attractive workplace. This was accomplished through automation using collaborative robots, which we started introducing in fiscal 2020. These robots are valuable assets of our factory where high-mix/low-volume production is performed in a limited space. Since there is no need to place a fence around these robots, their introduction still leaves sufficient space for people to move around, and the layout can be flexibly changed according to the nature of the work. When we expanded the scope of automation from press work to quality inspection, OMRON supported us with its superior image processing technological capabilities, and we were able to further improve operational efficiency. Going forward, we will consider further automation by increasing the number of collaborative robots and connecting processes. I am pleased that we introduced the system. Besides achieving higher equipment utilization rates and improved quality, we received very positive feedback on the initiative from our employees and outside parties. Some business partners indicated their willingness to support us because they were inspired by our new initiatives. In fact, automation has enabled us to win new business and has also had a positive impact on recruitment, helping us hire several new employees since the introduction of the system. I recognize various benefits of the investment that go beyond automation. Through the exhibition space that we opened to the public in 2023, I hope to connect with many companies and share our experiences to further expand the circle of automation.

Representative Director
ARIKAWA WORKS .Co., Ltd.

Fuki Arikawa



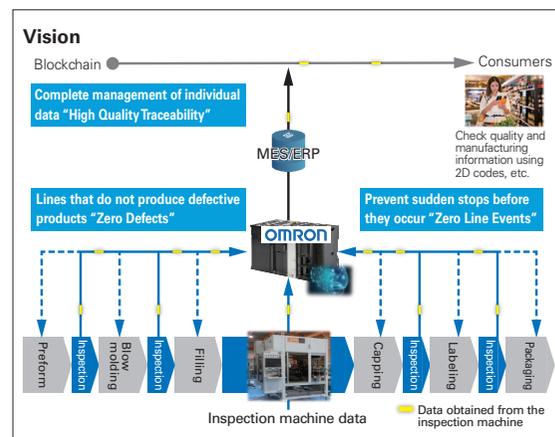
Case 3

Establishment of OMRON KIRIN TECHNO-SYSTEM CO., LTD. to Realize Safe, Secure and Fulfilling “Food”

Labor shortage in manufacturing industry is becoming more acute with every passing year. In the food and beverage industry, there is a growing need for automation that achieves sophisticated quality control and inspection without excessive reliance on manual labor, thereby ensuring the safety and security of products. In addition, in view of the need to reduce energy consumption and plastic usage so as to protect the global environment, the challenges facing manufacturing industry have become more complex in recent years. OMRON established OMRON KIRIN TECHNO-SYSTEM CO., LTD. (OKTS) on April 3, 2023, to create optimal beverage inspection solutions by leveraging its knowledge of manufacturing industry. As a leading Japanese manufacturer of inspection machines for the beverage industry, OKTS possesses advanced optical, transportation, and image processing technologies that support industry-leading high-speed inspection, as well as the ability to propose solutions corresponding to the know-how of diverse manufacturing sites. Kirin Techno-System Company, Limited, the predecessor of OKTS, has contributed to stable supply of products to the beverage industry through appearance inspection of PET bottle caps, labels, etc., inspection of the content of beverages and detection of foreign matter, and so on. The combination of OMRON’s advanced control technology cultivated by innovative-Automation with OKTS’s inspection machine technology will create synergy. OMRON and OKTS are currently working on the development of a “zero-defect” solution as the first step in creating synergy between the two companies. Conventionally, beverage production lines have inspection machines installed between each process to establish a high-quality production system that prevents defective products from progressing to the next

process. This results in items to be discarded at each process, which not only reduces productivity but also causes extra energy consumption and increased plastics waste. Through linkage of the information processing network with each inspection machine by means of automation controllers and AI, the new solution under development will enable rapid analysis and identification of the causes of defects. For example, in the case of a PET bottle blow molding machine*, the judgment as to the parameters that are problematic and causing defects, which used to depend on the skills, tricks, and experience of skilled workers, will be automated. By applying similar control to the entire beverage line, a zero-defect line can be achieved. New co-creation solutions will help maintain production quality, increase energy productivity, and reduce plastics consumption. OKTS will continue to create innovative solutions and contribute to production innovations that improve safety and quality in the food and beverage industry worldwide. By increasing productivity, OKTS will lead the way in realizing sustainable manufacturing sites that help protect the global environment.

* Equipment that blows air into molten resin (PET bottles, etc.) to inflate and mold it.



Employee Comments

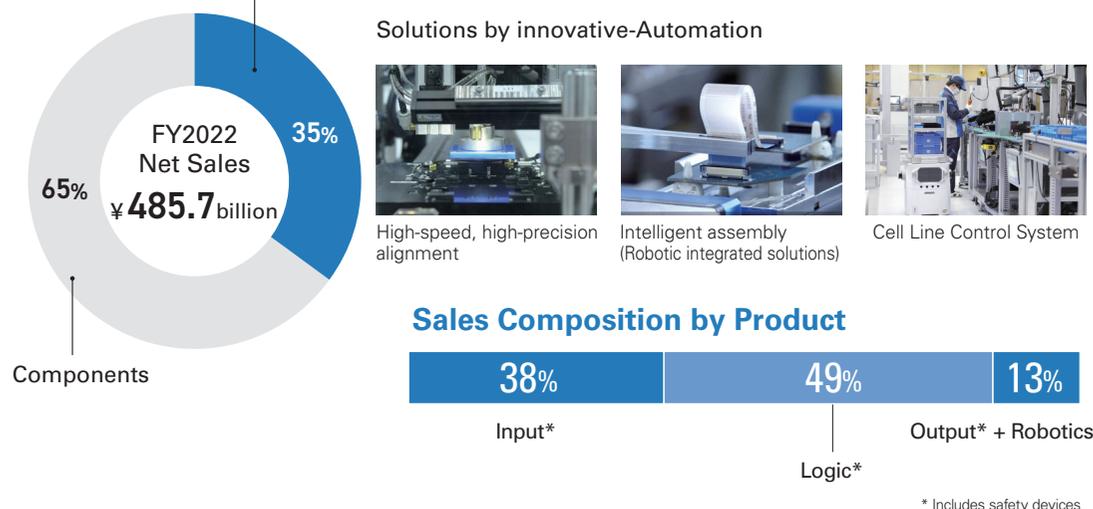
Since the establishment of Kirin Techno-System in 1990, the company has provided inspection solutions to many beverage manufacturers. We realize that customers’ needs for automated inspection are further increasing as the labor shortage worsens. In joining the OMRON Group, we will take on the challenge of creating new solutions that combine our technologies with innovative-Automation and maximize the value proposition to our customers. OKTS currently has a large share of the Japanese market for inspection machines for the beverage industry. We intend to increase our presence in the rapidly growing global beverage market, especially in Asia. In South Korea and Thailand, we have already started to propose inspection solutions to local beverage producers in cooperation with OMRON sales departments in each country. While there is robust demand for high-quality inspection in Japan, demand for machines that offer ease of use and are backed by meticulous local services is high elsewhere in Asia. Business development should be in tune with the needs of each market. While leveraging our strengths in technology, we will develop new inspection machines equipped with OMRON’s image processing technology that will enable sales departments in each country to provide services. By combining our products with OMRON’s applications and solutions and by leveraging its sales channels, we will strive to offer value that meets the expectations of our customers worldwide so as to contribute to the safety and security of “food” for people around the world.

President
OMRON KIRIN TECHNO-SYSTEM
CO., LTD.

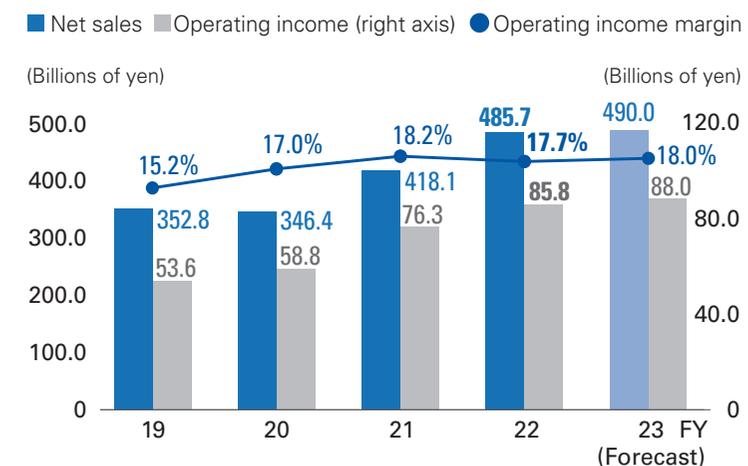
Hironobu Hosokawa



Sales Composition by Business Domains



Net Sales / Operating Income / Operating Income Margin

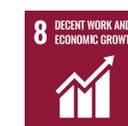


INPUT OUTPUT OUTCOME

- R&D cost: ¥27.0 billion (results for FY2022)
- Capital expenditures: ¥9.3 billion (results for FY2022)
- Started joint development with NTT Communications Corporation of DX solutions in the IT/OT (factory automation) domain to realize decarbonization in manufacturing (September 2022)
- Committed to doubling “energy productivity” with the Healthcare Business upon joining the EP100 international initiative (November 2022)
- Invested in Kirin Techno-System Company, Limited, a manufacturer of comprehensive inspection machines for the beverage industry. Became a subsidiary as OMRON KIRIN TECHNO-SYSTEM CO., LTD. (April 2023)
- Launched i-BELT service using the i-BELT Data Management Platform (August 2022)
- Launched the K7DD-PQ series of motor condition monitoring devices that automate the monitoring of abnormalities at manufacturing sites, replacing human workers (February 2023)
- Launched the NX502 controller with advanced control of information and safety (April 2023)
- Launched the Green Concept aimed at reducing environmental impact by reducing the carbon footprint of control panel manufacturing (June 2023)
- Launched the MD-650 mobile robot, which contributes to optimizing transportation efficiency at production sites (July 2023)

- Net sales: ¥485.7 billion (+16.2% YoY)
- Operating income: ¥85.8 billion (+12.6% YoY)
- Number of customers using innovative-Automation: 3717 companies (112% vs. plan)
- Sales of the solutions business as a proportion of total sales of IAB: 35% (+2% percentage points YoY)
- Created innovative applications: 290 (+40 from the previous year)
- Obtained certification for the IEC 62443-4-1 international standard for industrial control system security (May 2023)

- Established manufacturing sites that support a sustainable future in which symbiosis with the global environment is achieved and workers experience job satisfaction



SDGs 8.2.1



SDGs 9.2.1



SDGs 17.16

Healthcare Business (HCB)

To advance health and empower people worldwide to live life to the fullest

Managing Executive Officer President and CEO
OMRON HEALTHCARE Co., Ltd.

Ayumu Okada



— You were appointed the president of the Healthcare Business (HCB) this year. What is your vision?

HCB's SF2030 vision is "Going for ZERO, Preventive Care for Health of Society." To address the social issue of preventing the onset of chronic disease events, we are working on 3 Zeros within these domains: "Zero cerebrovascular and cardiovascular events," "Zero aggravation of respiratory diseases," and "Zero restrictions of daily activities due to chronic pain." Worldwide, there are approximately 1.4 billion patients with hypertension, approximately 250 million with asthma, and approximately 1.5 billion with chronic pain. I believe that by promoting preventive medicine through our business, we can contribute to the creation of a society in which people around the world can live healthier and more comfortable lives.

— What are the strengths you have inherited from your predecessor? In terms of achieving sustainable growth, what do you perceive as the challenges?

I value the strong organizational capabilities that my predecessor has cultivated. It is a driving force toward one unified goal, while respecting individual freedom. I would like to further develop those strengths. I also inherited a robust global business, which is a hardware based business, centering on the cardiovascular disease management. Under SF2030, we are taking on the challenge of achieving a transformation of the business structure to one that emphasizes "product + experience" value. In promoting preventive medicine, solutions are needed that utilize vital data measured at home for diagnosis and treatment. For us to achieve this, we need to take a new approach. In addition to the development of new technologies and the evolution of services, we are also required to quickly respond to increasingly complex changes, including deregulation and geopolitical risks. We will further strengthen our organizational capabilities to swiftly respond to the

changes by equipping ourselves with skills for conceptualization, execution, business planning, and technology to create a business that emphasizes "product + experience" value.

— In fiscal 2022, net sales grew 6.9% year on year to ¥142.1 billion, while operating income declined 14% to ¥16 billion. What are the factors accounting for these results?

Consumer purchasing sentiment declined owing to increasing inflation worldwide and restrictions on travel from China during the COVID-19 pandemic. Despite these circumstances, we steadily captured the needs associated with growing health consciousness and quickly responded to improvements in logistics, resulting in steady net sales growth. The decline in operating income was a consequence of higher-than-expected costs for parts and materials and logistics, as well as continued investment for growth, such as in remote medical care.

— In SF 1st Stage, HCB is focusing its efforts on three business domains—"cardiovascular," "respiratory," and "pain management"—as well as "Remote Patient Monitoring(RPM) services." What can you tell us about each of HCB's businesses?

In the cardiovascular business, we are focusing on the development of devices and services such as blood pressure monitors with electrocardiographs (ECG) and portable ECGs that are useful for early detection and treatment of atrial fibrillation (AFib), which is a risk factor for stroke and often associated with hypertension. Through collaboration with our partners, we continue to strive to make ECG recording at home part of everyday culture. AliveCor, Inc., a U.S. company, and Tricog Health India Private Limited (Tricog), an Indian company, are among our partners. AliveCor is a developer of mobile ECGs that are easy to carry and can be used whenever one wishes. It provides support services for diagnosis and treatment of AFib via a remote monitoring platform

enabling physicians to monitor patients. Tricog provides cloud-based ECG analytical service. Blood pressure monitors with ECG are devices necessary for Going for ZERO, our vision under SF2030. We will focus on blood pressure monitors with ECG as the second pillar of devices alongside blood pressure monitors. Meanwhile, we are working to expand our device business in China and India, where further market expansion is expected due to economic growth and the increasing number of hypertensive patients in line with population aging. India, in particular, is thought to have 300 million hypertensive patients, and has high potential. The Indian blood pressure monitor market is expected to reach approximately 14 million units in fiscal 2030. However, the level of awareness of the importance of home blood pressure monitoring is low among both physicians and patients. The penetration rate of home blood pressure monitors remains at 5%. In response to this situation, our focus is on promoting home blood pressure monitoring. For patients, we hold in-store blood pressure measurement and awareness-raising events. For physicians, we are working with the Indian Medical Association to establish guidelines for home blood pressure monitoring. We also announced that we will establish a production facility in India. The new plant is scheduled to start operation in fiscal 2025.

In the respiratory business, net sales for fiscal 2022 were 133% of the plan due to a recovery in the nebulizer market, which had been affected by the COVID-19 pandemic, with brisk sales in Europe, South America, and Asia Pacific due to increased interest in respiratory diseases as a result of the pandemic. In China, where more than 100 million people suffer from respiratory diseases, we expanded our product lineup. The expansion included oxygen concentrators, for which there is a unique demand in China, in addition to the launch of a quiet nebulizer to meet the local needs, and an innovative wheezing sensor. In collaboration with pharmaceutical companies we have set up “Nebulizer Rooms” in major hospitals, utilizing

the medical channel, which is one of our strengths, to promote and raise awareness of nebulizers. Regarding pain management, we have started cultivating a new market in Japan, sports recovery, for use in post-exercise care, in addition to the existing TENS devices for shoulder and back pain relief. Sports recovery device is beginning to spread mainly among professional athletes, but we hope that in the future the general public will use it for care at home. We would also like to focus on electrotherapy bands to alleviate knee pain. Utilizing a network of regenerative medical startups, we are working to build a channel of orthopedic clinics and hospitals to sell these devices to their patients. It is estimated that 30 to 50 million people worldwide suffer from osteoarthritis of the knee, and we believe these devices will lead to an increase in healthy life expectancy, including the prevention of patients becoming bedridden.

Regarding RPM service, we launched VitalSight^{*1} in the U.S. in 2020, and Hypertension Plus^{*2} in the U.K. in 2021. These services are designed to prevent cardiovascular disease events by allowing physicians to continuously monitor blood pressure data measured by patients at home and intervene as needed. In the U.S., through verification of the

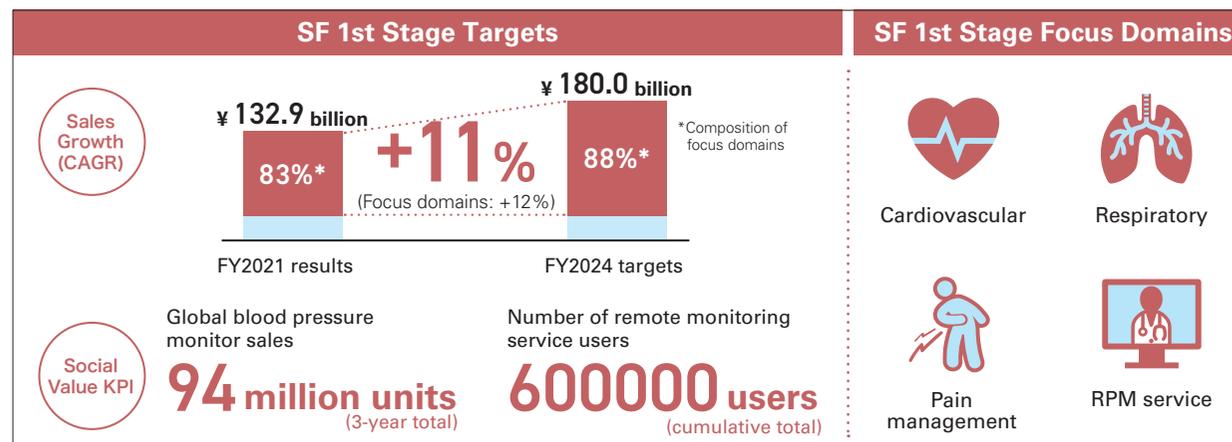
effectiveness of the treatment of the service users, the effect of blood pressure control was confirmed, with an average decrease of 7.8 points in systolic blood pressure. Moreover, 94% of the users are satisfied with the service. In fiscal 2022, we focused on maintaining the billable rate, one of the KFS of this business. In the U.S., the criterion for eligibility for reimbursement under insurance policies is a minimum number of measurements per month. Initially, we are concentrating on this point and establishing services to ensure that patients would meet this number. In the U.K., we are developing a system that is easy to use for medical professionals and reduces workload once introduced on site. Following the completion of development, which is scheduled for September 2023, we will work to increase the number of users.

^{*1} VitalSight: A remote monitoring service launched in North America in September 2020. Sharing patients' data measured at home with physicians realizes efficient and effective treatment.

^{*2} Hypertension Plus: A remote monitoring service launched in the U.K. in April 2021 that features recommendation of customized medication plans to patients, and uses blood pressure data measured at home.

— The RPM service appears to be one of the symbols of the transition to “product + experience” value businesses. I think it has a lot of potential as a business, but how do you see it developing in Japan?

At present, we are focusing on establishing services



in the U.S. and the U.K. as successful cases, thereby laying the foundation for a business model capable of generating profit. In Japan, we are working steadily with some hospitals and local governments to verify the effectiveness of RPM. We expect it to be included in the health management schemes of companies, organizations, and local governments, such as in medical checkups. The environment surrounding RPM services, such as insurance systems and medical systems, differs among countries and regions. However, we would like to create a business environment and expand our services in various countries in the future.

— How is HCB progressing with the social value KPIs set under SF 1st Stage?

HCB's social value KPIs under SF 1st Stage are global blood pressure monitor sales of 94 million units, a cumulative total for three years, and for remote monitoring services, our new initiatives, 600,000 service users. In fiscal 2022, the first year of SF 1st Stage, global blood pressure monitor sales totaled 22.06 million units, and the number of users of remote monitoring services grew steadily.

— Can you tell us about HCB's business plan for fiscal 2023 and prospects for medium- and long-term growth?

Our targets for fiscal 2023 are net sales of ¥146.0

billion and operating income of ¥17.0 billion yen, which we plan to achieve by reinforcing sales of devices, the foundation of our business, with a focus on blood pressure monitors. In fiscal 2022, facing logistics issues attributable to the COVID-19 pandemic, we concentrated our efforts on resolving the supply issues. In fiscal 2023, aiming for further growth, we are committed to ensuring the supply of products to our customers.

Specifically, in the cardiovascular business, we will strive to resume growth of our share of the global blood pressure monitor market. This year is the 50th anniversary of the launch of OMRON's first blood pressure monitor. We will also increase the number of countries where we sell blood pressure + ECG monitor and portable ECG, and spread the culture of home ECG recording.

The market of the respiratory business is growing, especially in India and China, having many patients. We will continue to focus on the introduction of products that meet market needs while increasing the recognition of nebulizers and strengthening the business through collaboration with pharmaceutical companies and medical professionals.

Regarding RPM, we will promote efforts to maintain the billable rate in the U.S. and establish a system in the U.K. that decreases the workload on healthcare professionals, and shift to the next stage where we see the scale up of the business.

— What do you consider to be HCB's advantages over its competitors?

I think HCB has three competitive advantages. Firstly, we have the know-how in obtaining regulatory approval as medical equipment. We sell medical devices in more than 130 countries, having obtained regulatory approval as medical equipment in 97 countries.

Secondly, we have earned the trust of the medical community. Home blood pressure readings are used by physicians as the basis for diagnosis and to determine the treatment policy for hypertension. We have enabled patients to monitor their blood pressure more easily and accurately at home. OMRON's blood pressure monitors are highly trusted by the medical community for their accuracy. Furthermore, we have been striving since the 1970s to promote greater awareness of the importance of home blood pressure monitoring and have developed blood pressure monitors while deepening the relationship with healthcare professionals. STRIDE BP (an international scientific non-profit organization founded by hypertension experts) lists 103 OMRON blood pressure monitor models as validated devices on its website (as of January 2023, survey by OMRON HEALTHCARE). Because physicians trust OMRON, users also trust OMRON products. I will cherish this trust that we have cultivated over the years, which is the source of our brand power.

Acquisition of regulatory approvals

97 countries

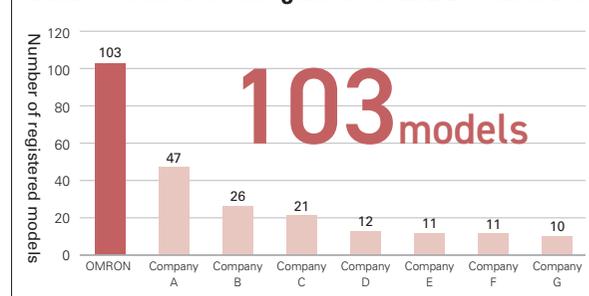
Over 130 countries and regions where OMRON health and medical equipment is sold

Global Sales Network

600000 sales channels

+160000 sales channels compared to fiscal 2015

Number of models that gained STRIDE BP validation



Thirdly, we have solid sales channels. We gained regulatory approval as medical equipment in each country and have developed business over the years. As a result, we now have a sales network comprising 600,000 sales channels worldwide, enabling us to deliver our products quickly and reliably. At the same time, “OMRON Connect,” a health management app for the customer base, is distributed in more than 130 countries and regions worldwide. We will create personalized insights for users and design algorithms to gather data from the customer base, both of which are essential for preventive medicine.

— What do you think of the current revenue structure? Please share your thoughts, including on the future strategy.

We will focus on our “capability of generating profit” based on our core businesses such as blood pressure monitors and nebulizers. Then, using the resources generated by the core businesses, we will invest in the creation of businesses that will have a social impact, such as innovative devices and services necessary to realize HCB’s vision under SF2030. We intend to create such a virtuous cycle. In emerging countries, the penetration rate of home blood pressure monitoring is still low, so activities to heighten awareness and presence in the healthcare sector are necessary. I expect we will continue investing in these areas for some time to further generate sales and profit.

On the other hand, our initiatives to achieve carbon neutrality, which is a social issue, constitute a criterion that consumers consider when choosing companies, products, and services. It is also a matter of corporate responsibility. We are working to establish carbon neutral production lines, make product packaging environmentally friendly, and design products that minimize power consumption. The Matsusaka Factory has started procurement within Japan of major parts for blood pressure monitors. This will reduce parts procurement lead times and reduce the amount of

storage space required, which is expected to result in a reduction of approximately 3.4 tons*³ in CO₂ emissions. We will vigorously invest in these measures as well.

*³ Based on calculations by OMRON HEALTHCARE

— What transformations are needed to achieve SF2030? What assets and capabilities are necessary for sustainable growth?

I would like to enhance HCB’s ability to anticipate and prepare for change as well as respond to change quickly and flexibly. To anticipate change, it is important to capture not only market data, but also the voice of the customer. We want to cultivate sensitivity that will enable us to find value in the voice of the customer. The data may not show it apparently, but I would like us to articulate it and create new value out of it. Moreover, the key to enhancing product planning as well as technical and sales capabilities is to cultivate the culture and atmosphere of the organization that anchors the business. For this purpose, we have formulated the “Global Human Resources Policy” that indicates the way forward for our employees. The keyword is “connect.” By transcending divisions and connecting more strongly, we would like to enhance our ability to anticipate change and flexibly, quickly, and effectively respond to change. Beyond that, I believe that we can see “OMRON becoming synonymous with chronic diseases management.”

— OMRON is committed to high cycle management. What is HCB pursuing and what results have been achieved?

Specifically, I would like to raise the level of HCB’s ability to set goals as an organization. For this purpose, rather than setting a solid achievable goal, we should set a medium to long-term goal that can lead to resolution of a social issue. It is important to have the ability to identify the bottlenecks along the path to achievement of the goal and to formulate a

scenario eliminating the bottlenecks.

For VitalSight, a RPM service in the U.S., we have defined the medium to long-term goal and the path to it. We review progress monthly and run the latest iteration of the “trial & learning” cycle. In addition, we have created an HCB version of the guide to high cycle management. In order to deepen employees’ understanding in preparation for implementation of high cycle management throughout HCB, all employees are engaged in ongoing discussions. I have had many discussions with managers in Japan and around the world. Stakeholders’ expectations of HCB are growing. We must foster a mindset among all employees that predisposes them to boldly take on challenges without fear of change or failure, and to share and learn from any failures as an organization. By doing so, I believe we will increase awareness of the need to attain higher goals, which will lead to the strengthening of both the organization and individuals.

— Finally, as president, how do you aim to manage the organization?

As I said at the outset, my aim is to enhance HCB’s ability to effectively respond to change and make HCB a stronger and more agile organization. I would like HCB to be a team whose diverse members with their different personalities and specialties advance boldly toward the same goal. Sharing the mission of helping people around the world be healthy, all of us at HCB can take pride in our work. I believe that it is the president’s job to help every employee realize their full potential. As for contributing to the resolution of social issues, I would like all our employees to experience this, and moreover to achieve growth of HCB as an organization.

Case Initiatives in India

India is estimated to have about 300 million hypertensive patients. The blood pressure monitor market is also projected to expand from 1.19 million units in fiscal 2020 to 14 million units in 2030, an approximately 12-fold increase. However, the use of home blood pressure readings in medical treatment and the practice of patients measuring their blood pressure at home have yet to become common practice, and the penetration rate of home blood pressure monitors is still only 5%. Moreover, about 80% of the medical institutions still use aneroid blood pressure monitor (aneroid blood pressure monitor that measure blood pressure by listening to arterial sounds called Korotkoff sounds with a stethoscope), and replacement demand for digital blood pressure monitors is expected. Therefore, we are taking on the challenge of publicizing home blood pressure monitoring and encouraging its mass adoption by promoting activities to raise awareness and product recognition for physicians and patients.

OMRON Academy Supporting the Use of Home Blood Pressure Readings in Medical Treatment

We are pursuing collaboration and dialogue to promote awareness among healthcare professionals of the importance of home blood pressure monitoring. Moreover, we are working with key opinion leaders to develop evidence-based guidelines derived from data obtained through home blood pressure monitoring among the Indian population so that home blood pressure readings can be used for hypertension diagnosis and treatment. Furthermore, we offer the OMRON Academy, an educational program for healthcare professionals, to highlight the importance of home blood pressure monitoring. We invite a key opinion leader as a lecturer for the OMRON Academy and raise awareness among the audience of the importance of home blood pressure monitoring in the treatment of hypertension, using original content

featuring data on Indians as teaching materials. In fiscal 2022, we held the OMRON Academy in 12 cities in which 2950 healthcare professionals participated.

Experience Centers Promoting Home Blood Pressure through “Hands-on” Experience

From 2018, OMRON began rolling out Experience Centers where customers can get hands-on experience of blood pressure measurement and other OMRON products and services, including guidance on how to use a nebulizer. Experience Centers are also equipped with customer service functions including repair. Starting from major cities, we are expanding the network of Experience Centers step by step to strengthen our points of contact with customers. There are three types of Experience Centers: an exclusive OMRON shop with all three functions of hands-on experience, service and pick-up; a shop-in-shop in a corner of a pharmacy or other location; and a mini-experience corner that focuses on hands-on experience and sales of products and provision of service. We have opened Experience Centers according to the needs of the area and the business environment. Approximately 26000 customers have visited Experience Centers. We address the different user needs and consumer behavior in each region in our marketing, having grasped these characteristics by listening directly to our customers. We plan to open 17 Experience Centers by fiscal 2023. By making it possible for customers to familiarize themselves with our products and services, and to experience the joy of selecting products and the satisfaction of the fastest repair service, we hope customers visiting Experience Centers will become lifelong OMRON fans.

OMRON Healthcare India
Gagan Saxena



Exclusive OMRON shop in Ludhiana

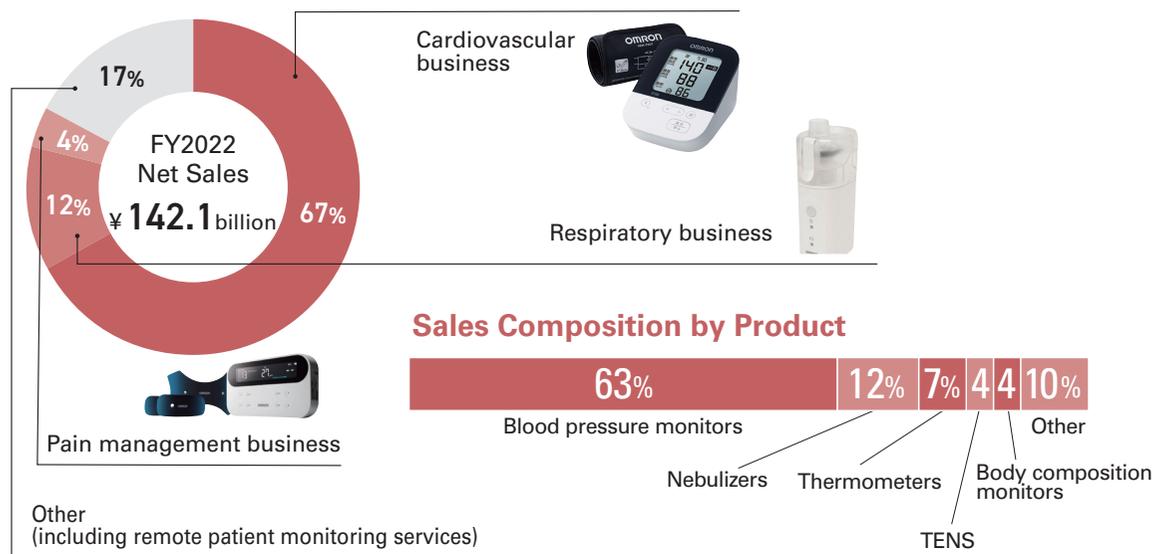


Exclusive OMRON shop in Gurgaon

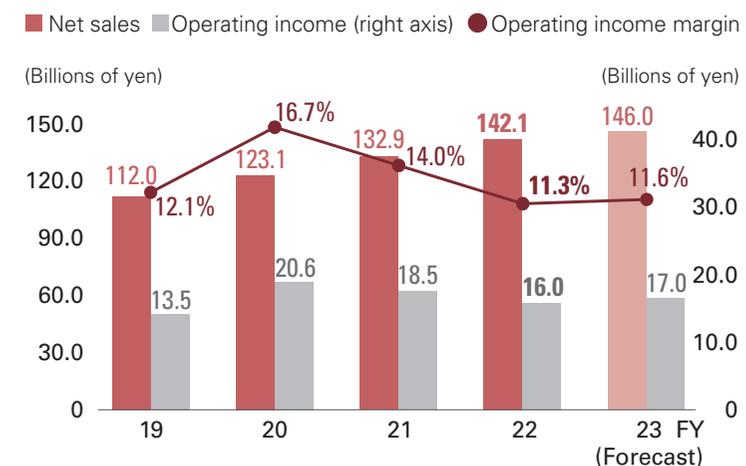


Shop-in-shop in Chennai

Sales Composition by Business Domains



Net Sales / Operating Income / Operating Income Margin



INPUT

- R&D cost: ¥7.9 billion (results for fiscal 2022)
- Capital expenditure: ¥6.6 billion (results for fiscal 2022)
- Committed to doubling “energy productivity” with the Healthcare Business upon joining the EP100 international initiative (November 2022)
- Changed the packaging for thermometers from plastic to environmentally friendly paper package
- Implemented a Pharmacists Recommendation Model, an ECG-based medical consultation recommendation model, in cooperation with the Smart Health Care Association at dispensing pharmacies and drugstores
- Launched a blood pressure + ECG monitor and a portable ECG in Japan
- Collaboration with Tricog Health India Private Limited (Tricog), which develops and provides cloud-based ECG analytical service in India

OUTPUT

- Net sales: ¥142.1 billion (+6.9% YoY)
- Operating income: ¥16.0 billion (-13.6% YoY)
- Cumulative global sales of blood pressure monitors: 22.06 million units (fiscal 2022)
- Number of remote patient monitoring service users: 75000
- Began development of a remote patient monitoring service utilizing Tricog’s cloud-based ECG analytical service and HCB’s ECGs.

OUTCOME

- Contribute to advance health and empower people worldwide to live life to the fullest by creating eco-systems for preventive medicine to decrease the onset of chronic disease events



SDGs 3.4.1

Social Systems, Solutions and Service Business (SSB)

Create a Society Where People Can Experience Happiness at All Times

Managing Executive Officer
President and CEO OMRON SOCIAL SOLUTIONS Co., Ltd.
Katsuhiro Shikata



— You were appointed the president of the Social Systems, Solutions and Service Business (SSB) this year. What is your vision?

SSB's vision is "Design Next Social Structure – Creating 'Social Good' by Organically Linking People and Society through Social Automation." As we head toward the year 2030, new social issues will emerge, posing a threat to the security, safety, and comfort of our daily lives, such as more frequent natural disasters in view of global warming and an insufficient labor force owing to the declining birthrate and population aging. We are endeavoring to "design" next-generation social systems to create a society where people can experience happiness at all times.

— Net sales for fiscal 2022 were ¥107.3 billion yen. What is your analysis of the factors that enabled SSB to exceed the target for fiscal 2024?

There are two factors. First, despite parts shortage, we ensured the supply of products in response to the growing demand for storage batteries arising from soaring electricity costs in the energy market as well as the increasing need for renewable energy due to the expansion of subsidies. The other is that we captured the demand associated with the recovery of customers' investment in line with the recovery of the number of rail passengers, which had fallen during the COVID-19 pandemic.

— What are SSB's strengths that you would like to develop in order to achieve sustainable growth, and what do you think are the challenges for SSB?

SSB has two strengths. Firstly, we are able to cover the entire business value chain from development to manufacturing, maintenance, and operation. We support social infrastructure throughout Japan with the organizational strength of 130 bases nationwide and approximately 1200 engineers. Secondly, we have gained trust and a high market share through our long history of providing products that support social systems, such as railway public transportation system and traffic and road management system. Many of our products have the first or second largest market

share in their respective fields.

On the other hand, SSB has two challenges. The first is to further strengthen the energy business. The demand for renewable energy is increasing in view of the overriding need to achieve carbon neutrality and the recent hike in electricity costs. We have gained a high market share in PV inverters and storage battery systems, which are indispensable for solar power generation. I believe there is room to further leverage such strength. As the need for renewable energy expands, we will strive to expand our energy business through smart control using energy management systems (EMS) and smart integration of distributed energy resources.

The second is the transformation from "1 solution x 1 market" to "N solutions x N markets." In particular, we will work on "4x4 multilayered value proposition" as the flagship, which involves proposing solutions to four issues in four markets. Our solutions have a high market share and a presence rooted in their respective markets and industries, but the issue is that we are offering only one solution in one market. Therefore, we will work to achieve transformation of our value proposition so that we can offer multiple solutions to multiple markets and industries and customers in a multilayered manner. For example, in the railway market, our solutions are focused on labor saving and manpower saving, such as automation of station ticket gates, support for various transactions (tickets, cards, etc.), and reliable fare collection. Going forward, we will strive to deliver value in a multilayered manner by implementing various strategies that leverage our strengths, such as proposing solutions for energy saving in the railway market. Going beyond resolving on-site issues through the provision of existing equipment and services, we aim to resolve customers' management issues by working together with them, while leveraging the expertise SSB has accumulated.

— To achieve SF2030, SSB is promoting "provision of control systems that stabilize power generation," "management and service systems that support efficient use of on-site systems," and

“enhancement of operational efficiency of the social infrastructure business.” Can you give us a progress report?

We have some major achievements to our credit. Regarding provision of control systems that stabilize power generation, the number of connected energy management devices, which is a social value KPI, was 24000 units in fiscal 2022, whereas the target is 50000 units connected by 2024. As of the end of the first quarter of fiscal 2023, the number of connected energy management devices has already reached 43000 units. Moreover, regarding the energy management system (EMS), in January 2023 self-consignment of electricity began from the OMRON Miyazu Solar Panel Plant (Miyazu City, Kyoto) to the Keihanna Technology Innovation Center (Kizugawa City, Kyoto), a business site at a distance of 100 km. Thanks to this EMS control technology, while maximizing the use of renewable energy generated in-house, the Keihanna Technology Innovation Center can satisfy around 30% of its annual electricity demand with the electricity supplied by the power generation facility in Miyazu City. Regarding management and service systems that support efficient use of on-site systems, we have enhanced our integrated maintenance services. In addition to multi-vendor support, which means we accept requests for inspection and repair of products even if they are made by other manufacturers, we have expanded logistics, kitting, and reporting agency services. In February 2023, we launched “assessment & design services” for companies facing challenges in maintenance management and facility operation. Using digital technology, the new services optimize business processes through “business process assessment” and “business process design.” Regarding enhancement of operational efficiency of the social infrastructure business, we have promoted “predictive maintenance,” which involves collecting on-site equipment operating data to grasp equipment conditions, and analyzing and utilizing such data to ensure that the necessary personnel are dispatched to provide maintenance services whenever needed.

Going forward, while continuing initiatives to improve operational efficiency, we will seize business opportunities, such as needs for digitization of tickets, including QR codes in the railway market and needs for labor saving for efficient management and operation of traffic flow in the transportation market.

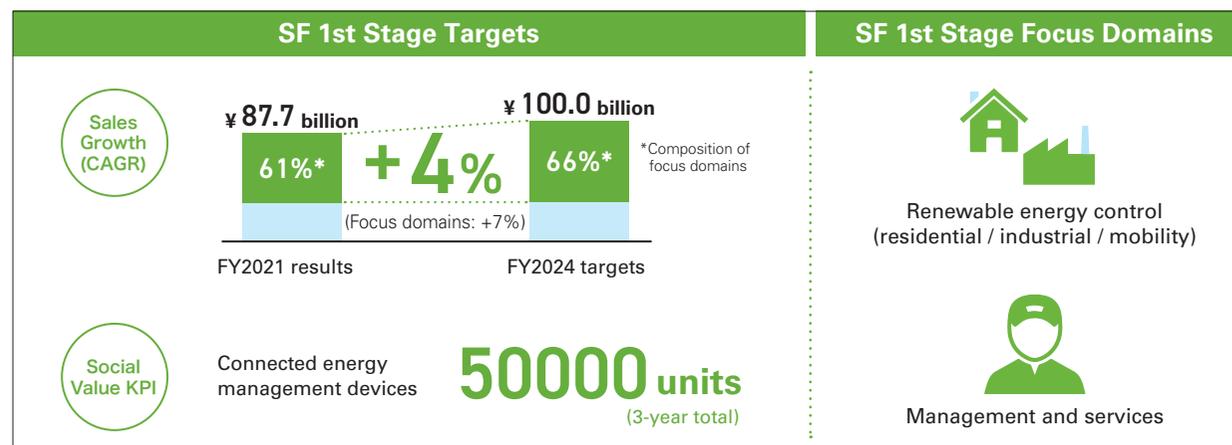
— Could you speak about SSB’s business plan for fiscal 2023 and prospects for medium- and long-term growth?

We expect the business environment to be generally firm due to rising demand in the energy business and the recovery of investment in the railway-related business. We have positioned fiscal 2023 as a year to “establish a foundation of sustainable growth” and “further strengthen the revenue base” toward “complete practical application of our strengths” for the medium to long term. In the energy business, our priority focus domain, we will strive to expand provision of distributed energy equipment, such as PV inverters and storage batteries for homes and small stores, and connect them to systems through a network. In the industrial domain, we will expand the introduction of systems combining large storage batteries with EMS, which efficiently manage renewable energy in response to electricity

demand. Need for efficient use of solar and other natural energy will increase in order to increase the ratio of renewable energy. Thus, I think technology to control energy equipment and systems will be important.

— What are SSB’s competitive advantages in the energy domain?

We have three competitive advantages in the energy business. Firstly, our grid connection control technology. By connecting solar power generation systems to a power company’s grid, OMRON’s unique control technology ensures stable connection. Even in the case of an increase in the grid, transmission and distribution lines will not become unstable and stable sales of electricity to the power company will be maintained. Secondly, we have the ability to swiftly provide uniform maintenance services anywhere in Japan. Thirdly, the versatility of our PV inverters and storage batteries, which can be linked with products from various manufacturers in a system. This allows for optimal configurations to match the needs of the demand side in terms of usage, performance, cost, etc. We will add “ability to provide services through EMS” to these three competitive advantages to minimize power generation losses and provide long-term stable operation, thus encouraging greater use of renewable energy.



— How do you envision the future of energy management? In what ways do you plan to strengthen the energy business?

Thanks to the advent of storage batteries, renewable energy generated by solar panels can now be efficiently controlled. That energy is portable, as typified by EVs. We expect stable and flexible electricity distribution to become possible by 2030 through integrated control and management of these distributed energy resources. In Japan, it is becoming increasingly difficult to find suitable sites available for installation of solar panels. Maximizing the efficiency of renewable energy use will be the key to achieving carbon neutrality. We will leverage our strength in components, such as PV inverters and storage batteries, and our PPA services for companies, which will increase the ratio of in-house consumption through conclusion of power purchase agreements, as a way to secure a foothold. We will promote initiatives to build an energy business that provides value for various power systems, such as by adjusting the supply-demand balance and avoiding output curtailment of renewable energy sources through EMS-based control, integration, and networking of distributed energy resources. As EMS is a field that will continue to expand, many companies are preparing to enter the market. In these circumstances, we are expanding the range of our EMS services, such as self-consignment of electricity from the OMRON Miyazu Solar Panel Plant and the use of large storage batteries for energy control. In May 2023, we launched a V2X system to enter the field of energy control using EVs, in anticipation of the future mass adoption of EVs.

— What is your view of transformation for growth?

Pursuing what we call “4+1+1 transformation,” we will work on four transformations in terms of business and one each in terms of human resources and organizational culture. For business, firstly, we are pursuing transformation from “1 solution x 1 market” to “N solutions x N markets,” which I mentioned earlier is a challenge. Secondly, transformation to the

“essential value perspective.” In addition to providing value targeting customers’ current issues, i.e. “on-site x short-term” issues, we will work to create value for future issues, i.e. issues related to “management and industry x mid-term” from the essential value perspective. Thirdly, creation of a recurring revenue model. By increasing the ratio of recurring revenue business for which multi-year contracts and future revenue can be expected, we will shift from providing value in a single year to providing value over the medium to long-term. Fourthly, transformation to a “solution cycle.” This involves transformation of our position from an outsider, that is, one who listens to customers’ explanations of their on-site issues and provides value targeting certain functions (implementation, operation), to an insider who identifies business issues together with customers and provides value targeting every phase of their operations (planning, implementation, operation, improvement). Regarding human resources, we are aiming to “develop human resources who will play a key role in creating businesses from the essential value perspective and in achieving recurring revenue.” SSB has defined four model human resources: producers who can create business that will drive growth from the essential value perspective; influencers for maintaining and strengthening OMRON’s influence and position in the industry; experts with specialized skills necessary for business continuity, enhancement, and evolution; and management for maximization of organizational results. SSB is currently developing all these human resources. Regarding the organizational culture, we aim to create an organization where management and all employees enhance one another through interactive relationships, rather than a top-down or bottom-up approach of one-way relationships between management and employees.

— What is your view of the current revenue structure?

In terms of ROIC, we aim to increase both return on sales and invested capital turnover by increasing the ratio of subscription-based business (recurring

revenue). At the same time, in order to maintain and improve ROIC, we will increase investment in assets that generate higher returns. For the Miyazu power plant that I mentioned earlier, we adopted a PPA* business model: we leased the land, invested in construction of the power plant, including installation of solar panels and storage batteries, and are recouping our investment by selling the generated renewable energy to OMRON.

*PPA: Power Purchase Agreement in which a business leases the roof or idle land of a site owned by a company or municipality and installs power generation equipment free of charge, and the company or municipality uses the electricity generated at the site and pays a service fee for the electricity consumed to the business.

— How does SSB practice and promote high cycle management?

We are applying high cycle management in the “4x4 multilayered value proposition” initiative, which I mentioned earlier. When working to resolve issues at the customer’s frontline, we simultaneously propose the various solutions that SSB can offer. Then, decision-making among top management will accelerate the prioritization of proposals, trial implementation, and decisions as to which proposals should be pursued. High cycle management is becoming entrenched at each workplace. I see that more and more people are engaged in high cycle management. They are considering and discussing how best it can be applied in their work.

— On becoming president, you made a promise to your employees, didn’t you?

I promised to cultivate an organizational culture in which employees can bring their capabilities into full play based on a high level of psychological safety, and then to build an organization equipped with outstanding execution capabilities and competitiveness based on that culture. Such an organization allows employees to speak up and challenge higher goals while respecting one another’s diversity. I am convinced that a flat culture with a supportive atmosphere will lead to high execution capabilities and greater competitiveness.

Case 1

Utilizing Self-Consignment System to Accelerate the Introduction of Renewable Energy

OMRON announced its medium- to long-term environmental target, OMRON Carbon Zero, with the goal of reducing Scope 1 and 2* greenhouse gas (GHG) emissions to zero by 2050. To achieve this goal, we are working to achieve zero GHG emissions at all 76 sites in Japan. OMRON FIELD ENGINEERING Co., Ltd. (OFE), a member of the OMRON Group, which provides engineering, field service, and operation management services to customers nationwide, is participating in a project to introduce renewable energy at sites in Japan in furtherance of the OMRON Group's carbon zero initiatives.

In order to continue business activities while reducing GHG emissions, it is vital to utilize electricity generated from renewable energy sources at solar power plants. However, it is difficult to find sufficient space for such a facility at offices in urban areas. Meanwhile, if we turn our eyes to more rural areas, we can still find spaces large enough for installation of power generation facilities. OFE has come up with the idea of supplying electricity from renewable energy sources in rural areas via "self-consignment." Self-consignment is a scheme that allows companies to transmit electricity generated at their own facility at a remote location to their own factories and offices through the transmission/distribution network. There are only a few examples of self-consignment in Japan so far. By taking advantage of this scheme, OFE has realized supply of power to OMRON's R&D base, Keihanna Technology Innovation Center, from the OMRON Miyazu Solar Panel Plant (Miyazu City, Kyoto), located at a distance of approximately 100 km. As a result, approximately 670 MWh of electricity per annum, which accounts for around 30% of the electric power consumed at the site, will be supplied from a remote location, enabling a reduction of approximately 200 tons of GHG emissions per year. The biggest challenge for enabling self-consignment

was "keeping energy production equal to energy demand (balancing)." To stabilize power transmission and distribution networks, self-consignment service providers are required to submit their prediction of the power generation volume and consumption volume to electric power companies beforehand and ensure that the planned value coincides with the actual value, a process demanding high-precision energy management. To achieve this precise control, OFE introduced an original energy management system (EMS) using large storage batteries. The EMS predicts the power generation volume with a unique algorithm that incorporates meteorological data from the Japan Meteorological Agency and private weather information services and past power generation data, as well as know-how gained from the experience of working with over 2000 power generation facilities. By controlling energy based on these predictions, OFE developed a system that minimizes errors between planned and actual values by charging storage batteries when the power generation volume exceeds the planned value and discharging when it is below. Many Japanese companies are introducing facilities generating electricity from renewable energy sources as they endeavor to achieve carbon neutrality by 2050, giving rise to high expectations for the use of self-consignment schemes. OFE will continue to take on the challenge of adopting such a new scheme and developing the related technologies so as to contribute to the achievement of carbon neutrality.

* Scope 1: Direct GHG emissions from the company's use of fuels
 Scope 2: Indirect GHG emissions from the use of electricity/heat purchased by the company
 Scope 3: GHG emissions from the company's value chain

Energy Management HQ
 OMRON FIELD ENGINEERING Co., Ltd.
Noriaki Hayakawa



Employee Comments

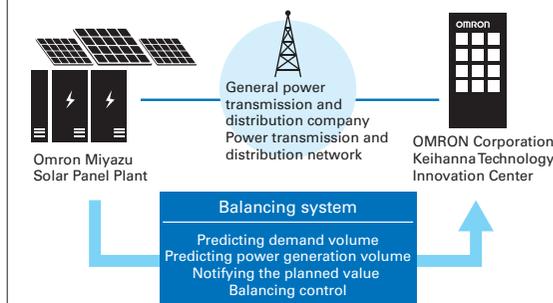
Keihanna Technology Innovation Center has been working to reduce GHG emissions, centering on Scope 2, to achieve OMRON Carbon Zero. However, the use of renewable energy relevant to Scope 2 was limited to a small amount of electricity generated by a solar power generation system at the Center, and there was no prospect for further progress. In these circumstances, the adoption of "electricity supply via self-consignment" that OFE is promoting has led to significant progress in the introduction of renewable energy. Following the start of the operation of the power generation facility, approximately 30% of the electricity consumed at the Center in the first quarter of fiscal 2023 was covered by electricity supplied via self-consignment and solar power generation at the Center, contributing significantly to the reduction of GHG emissions. Going forward, we will promote energy saving by upgrading to energy-efficient facilities and contribute to the carbon neutrality of society through our R&D outcomes.

Renewable Energy Introduction
 Project member
 OMRON Keihanna Technology
 Innovation Center

Kenichi Nishikawa



Self-consignment system linking power generation facilities in remote locations with business sites



Case 2 **Creating New Services with OMRON Product Users**

Companies are working to decarbonize their operations in order to achieve a carbon neutral society by 2050. However, since many companies are finding it difficult to achieve their goals through energy conservation and the introduction of renewable energy alone, decarbonization is a major challenge for management. On the other hand, electricity generated at home and consumed at home has been overlooked instead of being recognized as something that could fulfill a significant role in reducing CO₂ emissions. In January 2022, OMRON SOCIAL SOLUTIONS (OSS) launched a new service, "Our Eco Life Circle," to leverage the environmental value inherent in this electricity. This service covers users of solar power generation and storage systems provided by OSS. OSS collects data on self-consumption of power generated by solar power systems at the homes of the users of this service and converts it into environmental value credits, utilizing the J-Credit Scheme*, a global warming countermeasure of the Japanese government. Credits can be reported as the amount of renewable energy procured through initiatives such as RE100 and SBT, and companies can promote environmental management by utilizing the credits to make up for the portion they cannot achieve by energy saving and energy generation efforts. Users of this service will also receive points that can be exchanged for various types of electronic money and gifts according to the amount of self-consumption. NTT SMILE ENERGY, Inc. (NTTSE), which provides remote monitoring services for solar power generation, operates this point reward service. NTTSE does not simply reward users with points, but also utilizes its expertise in promoting interest and concern for the environment in order to encourage users to become

more environmentally aware. As a result, users not only experience an environmentally friendly lifestyle based on renewable energy, but also have a stronger sense that their actions at home are connected to the realization of a carbon-neutral society. A society that aims for carbon neutrality, users who are the driving force of society, and OMRON and its partners are connected in a virtuous circle to create a better society. This concept is reflected in the name of our service. Since its launch in January 2022, the service has been well received and currently has over 15,000 users. Our target is to collect 36 GWh of self-consumption of solar power generated as environmental value in three years from the launch of the service. As of August 2023, the amount had reached 25 GWh, far exceeding the plan, and has already reduced emissions by 11,000 tons of CO₂ equivalent. With OMRON Carbon Zero as its long-term vision, OMRON is working to decarbonize all its 76 sites in Japan. In fiscal 2022, with the addition of energy generation and energy saving at each site, five sites achieved carbon zero by utilizing this service. Through the service, OSS will fulfill its social responsibility as a company that promotes carbon neutrality and decarbonization, and contribute to the creation of a sustainable society.

* J-Credit Scheme: Under this scheme, the Japanese government certifies the amount of emission reductions and absorption of CO₂ and other greenhouse gases through initiatives such as introduction of energy-saving equipment and forest management as "credits."

Emergent Strategy Dept., Energy Solutions
Business HQ
OMRON SOCIAL SOLUTIONS Co., Ltd.

Shoko Kambayashi



Comments from Our Partner

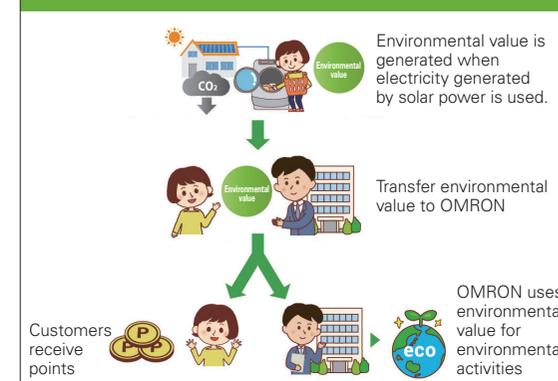
OSS and NTTSE have collaborated on sales of PV inverters, storage batteries, and other products, but there have been no cases of collaboration on business development. In the renewable energy industry, where a sense of speed is required, business development through collaboration is indispensable, and I am pleased that NTTSE was able to contribute with its speedy development capabilities and create an exemplary case study. The business in which customers are rewarded for environmental value is a precursor of the virtual power plant (VPP) business that will take off in the coming years. This is a new challenge for OSS, which aims to evolve from a manufacturer to a service provider, effectively utilizing users' resources and promoting carbon neutrality and decarbonization together with users. We at NTTSE are also taking on this challenge together with OSS so as to achieve business expansion of the two companies.

Business Development Department
NTT SMILE ENERGY, Inc.

Keiichiro Umeda



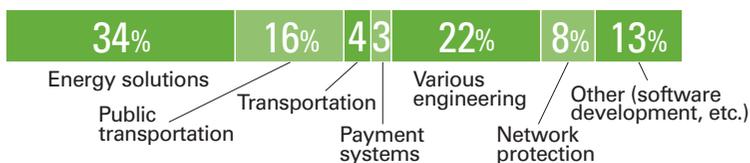
How Our Eco Life Circle Works



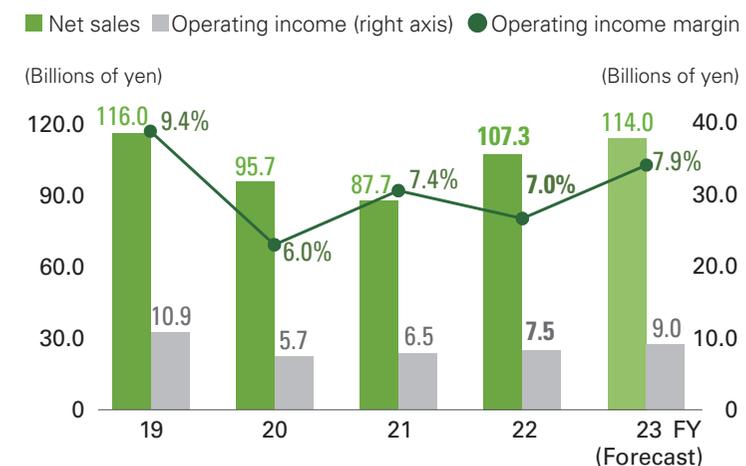
Sales Composition by Business Domains



Sales Composition by Product



Net Sales / Operating Income / Operating Income Margin



INPUT OUTPUT OUTCOME

- R&D cost: ¥3.5 billion (results for fiscal 2022)
- Capital expenditure: ¥3.4 billion (results for fiscal 2022)
- Started verification experiment of robotics, mobility, and building facility coordination service to save labor by introducing robots (September 2022)
- New entry into energy solution business for electric vehicles (EVs and PHEVs), launch of EV charging control service (November 2022) and V2X system (May 2023)
- Launched “assessment & design services” for management of maintenance and operation of chain stores, etc. (February 2023)
- Launched PPA services for companies and municipalities for on-site solar power generation and storage (April 2023)
- Launched storage battery remote control service for retail electric power companies (September 2023)

*V2X (Vehicle to X): Technology that collectively refers to the connection or interconnection of an electric vehicle with something (X)
*PPA: Power Purchase Agreement, Power Purchase Agreement using the third-party model

- Net sales: ¥107.3 billion yen (+22.3% YoY)
- Operating income: ¥7.5 billion (+15.1% YoY)
- Connected energy management devices: 24000 units
- Cumulative shipped capacity of solar power systems: 11.3 GW
- Cumulative shipped capacity of storage battery systems: 1.1 GWh
- Cumulative total of certified credits through carbon offset services utilizing J-Credit Scheme: 25 GWh (as of August 2023)
- Started operation of “meemo,” a community-based MaaS, in Maizuru City, Kyoto (June 2022)
- Started operation of “self-consignment” of electricity generated by renewable energy sources for sites in Japan (January 2023)

- Contributed to realization of a better society in which people around the world can continue to live in a safer, more secure and comfortable society by expanding renewable energy and providing people-friendly next-generation systems



Device & Module Solutions Business (DMB)

Shift from a Style That Supplies Components to a Style That Creates Its Own Solutions Starting from Social Issues

Managing Executive Officer
Company President, Device & Module Solutions Company

Masahiko Ezaki



— You were appointed the president of the Device & Module Solutions Business (DMB) this year. What is your vision?

DMB's vision under SF2030 is to "Resolve Social Issues with Customers" by leveraging DMB's strength in "connecting" and "switching" technologies. Based on this vision, I recognize my mission is to transform DMB into a business that can achieve sustainable growth. The basic thrust of SF2030 is to shift DMB's style of business from supplying components that resolve individual customers' issues to creating new value by considering the optimum solutions starting from social issues, working together with customers and partners, and implementing those solutions.

— Please tell us about fiscal 2022.

Under SF2030, we are focusing on four domains— devices for DC (direct drive) drive, devices for DC infrastructure, high-frequency devices, and remote/VR devices—that are expected to grow further with migration to DC to ease environmental burdens and digitalization of society. Moreover, we are also sharpening our focus on new ways of delivering value corresponding to "Green," "Digital," and "Speed," attributes that will become increasingly important in the future, in order to realize a sustainable society. In fiscal 2022, while strong demand continued, there were difficulties in procurement of components worldwide and changes in customer requirements due to the impact of the COVID-19 pandemic. In these circumstances, we ensured the supply of products to meet customer requirements through flexible production changes and timely changes of suppliers. In our focus domains, we tackled more themes related to energy, such as solar power generation and storage batteries, and semiconductor inspection equipment, and demand remained strong. As a result, net sales increased 14.8% year on year to ¥138.9 billion, and operating income rose 54% to ¥15.5 billion, a record high. Regarding social value KPIs, sales volumes of products for DC equipment and products for high-frequency devices amounted to 10 million units and 60 million units, respectively. We will

continue to strengthen our offerings of various products that create social value.

— What do you want to develop as DMB's strengths to achieve SF 1st Stage, and what do you think are the challenges for DMB?

Under the previous medium-term management plan (VG2.0), we promoted structural reforms, such as strengthening quality control and consolidating production bases, and established a strong business foundation. That is why we are now boldly steering DMB into a growth phase. Our organizational strength has made this possible. We have established an organizational structure that allows all our functional departments to work as one team toward a goal and sharpens their effectiveness. While focusing on "creating new value" by maximizing the strength of the business foundation we have laid and the organizational capabilities underlying it, we aim to transform DMB into a sustainable growth business through "organizational management that takes on the challenge of maximizing output."

Meanwhile, the challenges are "speed" and "maximization of the business opportunities we capture." In terms of speed, in order to respond more swiftly to the needs of society, it is essential to accelerate every phase from value creation, planning, and commercialization through to value proposition by linking a series of cycles, and to give customers the speed they want. We need to establish a quick and flexible business process according to the needs of the targeted market. To this end, in December 2022, we concentrated development engineers, who previously were dispersed around Japan, at the Okayama Office to develop relays, switches, modules, and other basic technologies. We aim to cut development lead times to less than half what they were in the past through a cross-functional (concurrent) structure in which departments gather together to discuss and co-create from the upstream stage of manufacturing.

In order to maximize the business opportunities we capture, going beyond "point-by-point" activities for

promoting our products to individual customers, we will expand business opportunities by “covering the ground,” which means addressing customers in an industry that share attributes, casting our net wider to cover entire industries, planning product groups, and horizontally deploying them for new applications. We will also work to strengthen our ability to respond to customers based on a structure attuned to concurrent activities, including not only personnel from sales but also from marketing and product divisions in each area, as well as product development.

— What is your strategy for fiscal 2023 for medium- to long-term growth?

During the COVID-19 pandemic, demand associated with home nesting boosted sales. Now, the market environment has stabilized, and sluggish global consumer demand persists. As distributor inventories in the market remain high, we expect it will take more time for demand to recover.

On the other hand, there are certainly areas where growth is expected, such as energy-related industries and the semiconductor inspection equipment industry. In fiscal 2023, we will emphasize the proposing of solutions to capture demand in such growth markets and cultivation of customers in the target industries and accelerate the offering of

applications for other industries where there is commonality, thus establishing a structure for growth. Specifically, we will focus on “expansion and strengthening of the four focus domains,” “strengthening of the core business through new value proposition,” and “strengthening of the revenue structure.”

Regarding expansion and strengthening of the four focus domains, we will focus on domains where demand is expected to increase due to changes in society, aiming for year-on-year growth of 108%. To ease environmental burdens, the shift to DC power supply and electrification of products and infrastructure equipment are progressing rapidly, as is the trend toward higher-capacity energy-related applications, such as solar power generation. We will promote high-capacity relays necessary to facilitate the spread of such DC products, and modules for EV charging infrastructure that contribute to the realization of a carbon-neutral society. Furthermore, we will continue to approach customers in the gas industry with a view to developing the applications necessary to realize a hydrogen economy, since hydrogen is widely viewed as a promising next-generation energy source. Regarding high-frequency devices, demand for products for inspection applications for semiconductors and electronic devices is increasing quickly, spurred by the spread of high-speed

communication. To meet this demand, we will offer high-frequency-compatible relays and inspection modules so as to achieve sales growth. For remote/VR devices, we will combine sensors and other devices with IoT communication platform technology to create the modules necessary for realization of a digital society. We intend to achieve business growth by swiftly releasing products developed in cooperation with customers that will resolve social issues. Such products include new weather IoT sensors jointly developed with Weathernews Inc., which help mitigate risks associated with extreme weather events, and EV charging smart plug modules developed in cooperation with Ubiden, Inc. With respect to strengthening of the core business through new value proposition, we are working to create new value based on “Green, Digital, and Speed.” For example, regarding “Green,” we aim to expand the range of decarbonized products that contribute to reduction of CO₂ emissions. Also, we intend to contribute to decarbonization throughout the supply chain by shifting factories to electricity derived from clean energy and introducing visualization of the carbon footprint of each product. Finally, we are strengthening our revenue structure. We restructured our business foundation principally by improving product quality and through structural reform

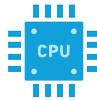
Number of products supplied in focus domains

Products for DC equipment

10 million units

Products for high-frequency devices

61 million units

SF 1st Stage Targets		SF 1st Stage Focus Domains
 <p>Sales Growth (CAGR)</p>	<p>¥ 121.0 billion</p> <p>23%*</p> <p>+ 1%</p> <p>(Focus domains: +3%)</p> <p>¥ 125.0 billion</p> <p>24%*</p> <p>*Composition of focus domains</p> <p>FY2021 results</p> <p>FY2024 targets</p>	 <p>DC equipment</p>
 <p>Social Value KPI</p>	<p>Sales volume for products contributing to the spread of new energy and high-speed communication (cumulative total for 3 years)</p> <p>Products for DC equipment 60 million units</p> <p>Products for high-frequency devices 170 million units</p>	 <p>High-frequency devices</p>

of production, under the previous medium-term management plan. On the other hand, we recognize the need to establish a more stable revenue base to prepare for prolonged inflation as regards labor, material, and energy costs. We intend to improve the GP ratio by emphasizing a product mix oriented toward high-value-added products, production and inventory management with high turnover, and production efficiency improvement through further automation of production and use of digital technology. We will also promote the computerization of indirect operations to improve operational efficiency. Through these measures, we will establish a strong revenue structure capable of maintaining ROIC of 10% or more.

— What transformations are needed to achieve SF2030? What assets and capabilities should be incorporated for sustainable growth?

We will engage in three transformative initiatives to achieve the transformation of our business structure. Firstly, we will pursue business transformation. We feel confident about the cases in which co-creation themes have been launched by communicating DMB’s vision, “aiming for a business that resolves social issues,” internally and externally and gaining the empathy from customers. The key is to shift from a “customer-oriented” style of providing products that satisfies customer needs to a “social-oriented” style of proposing and creating products to customers that contributes to resolving social issues. Secondly, transformation of the focus domain. In pursuit of business growth, we are shifting our resources to four focus domains. These four domains are at the intersection where we can leverage our strengths and social changes create opportunities. Thirdly, the new value proposition and how we deliver it. In terms of “Green,” we are emphasizing the offering of products that contribute to reduction of CO₂ emissions. In terms of “Digital,” we are focusing on conversion of design and production data into value. And in terms of “Speed,” we are shifting to SCM that will make timely delivery a competitive advantage and is expected to lead to benefits in the

medium to long-term, in addition to concurrent development that reduces development lead time. I recognize that the acquisition of new customers and the creation of new products are necessary to realize these goals. We will strengthen marketing and commercialization for this purpose.

— What are OMRON DMB’s competitive advantages?

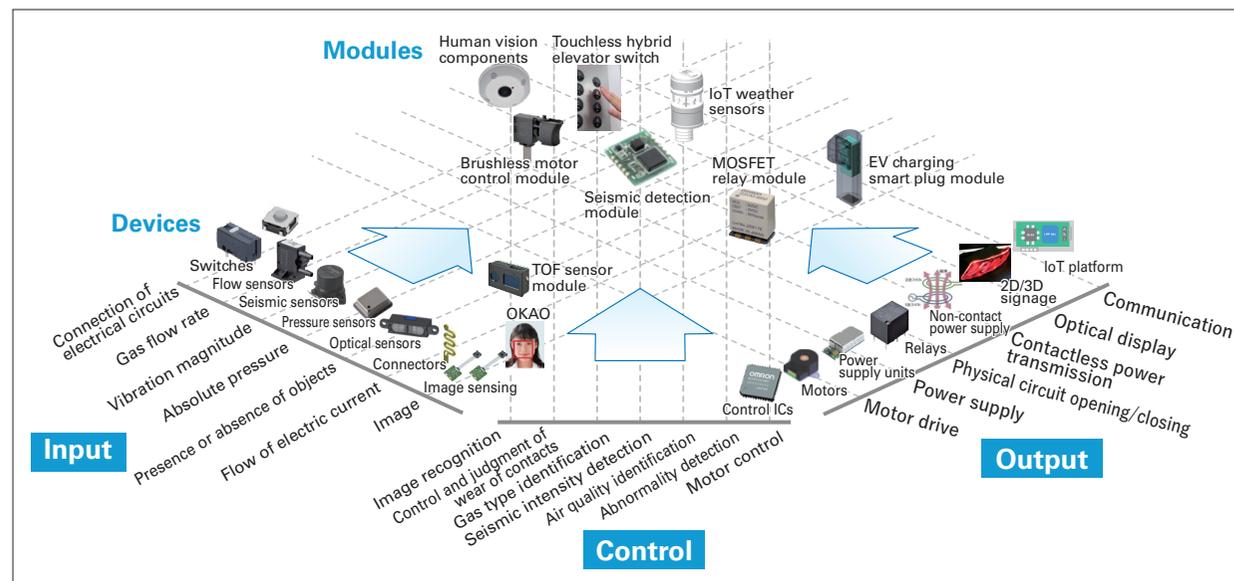
There are three principal ones. Firstly, customer assets. Our customers are leading companies in a wide range of industries. Having quickly identified social changes and needs, we have been able to develop and provide products ahead of the competition. Secondly, quality, which we have continued to refine in the course of transactions with leading companies. Thirdly, connecting and switching technologies. In addition to the fine mechanical engineering (microfabrication technology) that we have cultivated since our founding, we possess a broad lineup of technologies. Through smart sizing

(combination technology) for compact packaging of multiple functions, we can create unique, highly functional devices and modules that differ from those of specialist manufacturers.

— OMRON is committed to high cycle management. What initiatives is DMB pursuing?

Aiming to make proposals ahead of the competition, we practice high cycle management to “strengthen our ability to make proposals and realize them quickly” and “improve our ability to effectively respond to change through data-driven decisions.” Specifically, our aim is to shorten the lead time to product releases by 50% through concurrent activities and to quadruple the speed of business control of procurement, production, and sales (from monthly to weekly). We seek to improve customer satisfaction and maximize business opportunities by accelerating the cycle of value delivery in both the upstream process of creating new value and the downstream process of mass production.

<DMB’s extensive technology lineup>



Case 1 **Concurrent Co-creation with Customers to Create Solutions that Support the Spread of EV Charging Infrastructure**

In recent times, there has been an increased push for the spread of EVs and charging infrastructure to achieve decarbonization. With the aim of creating an environment where anyone to charge EVs anywhere, OMRON, in cooperation with Ubiden, the operator of the WeCharge EV charging service, has developed a module that can be retrofitted to EV charging outlets and measure the amount of charge per user. By combining Ubiden's cloud system that bills each user according to the amount of EV charging and OMRON's power control and sensing technology that measures the amount of charge along with IoT communication functions that transmit data to the cloud, we can provide seamless EV charging services. We aim to establish the service as soon as possible through concurrent activities integrating OMRON's development, production, and sales with Ubiden, to promote the introduction of EV charging and billing services to small-scale commercial facilities and



EV charging smart plug module (top) installed in an EV charging outlet to provide an EV charging and billing service

apartment buildings, thereby contributing to the accelerated spread of EV vehicles. Going forward, we will continue to address social issues and create new value by co-creating solutions based on our device & modules.



Development members

Comments from Our Partner

Ubiden's WeCharge service supports the realization of sustainable mobility through the development of EV charging infrastructure. Drawing on its outstanding technological capabilities and unique approach, OMRON provided us with valuable support as we tackled the challenge of simultaneously achieving stable product supply and reliable system operation to meet the needs of the rapidly increasing number of EVs. Our cloud system and OMRON's expertise and knowledge encompassing power control, electricity metering, and the IoT platform for transmitting electricity data, as well as its passion, have enabled rapid product development. By creating an electricity grid that allows everyone to freely use their preferred electricity, anywhere, anytime through WeCharge, we will work to realize a decarbonized society friendly to the Earth and people.

General Manager, Platform Development Department
Technical Development Division, Ubiden, Inc.

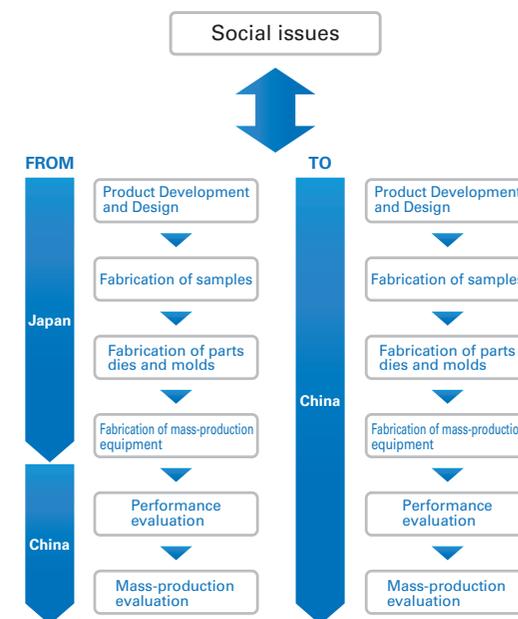
Yasutaka Kosugi



Case 2 **Achieving Speedy Value Proposition in China**

OMRON Electronic Components (Shenzhen) Ltd. (OMZ) is engaged in "Team China" activities to speedily create new solutions in China under a concurrent system. In fiscal 2022, OMZ established an engineering department. As a result, a system is in place that enables OMZ to carry out a series of processes required for new product development—product design, fabrication of parts dies and molds, fabrication of mass production facilities, and performance evaluation—all in one go. By using 3D printers and 3D measuring equipment, OMZ has shortened the time required to provide product samples to customers to less than one-third of that required in the past, thus accelerating the speed of response to customers.

<New Product Development System at OMZ>



Increasing the speed of value proposition through a one-stop system in China

As a result, China took the lead in developing relays for data centers that contribute to the spread of high-speed communications through concurrent activities involving development members in Japan. Furthermore, in June 2023, OMZ obtained CNAS*1 certification, an international laboratory accreditation standard. This enables OMZ to provide evaluation test reports bearing the ILAC/CNAS logo to its customers. Test reports certified by a third-party certification body are testaments to the reliability of the test results, confirming the quality of the products across China and enabling customers to simplify evaluation tests. Through these initiatives, OMZ is accelerating the speed of product provision to the market. OMRON will continue creating value through concurrent, high cycle activities to provide solutions faster than other companies and achieve autonomous growth.

*1 CNAS is an abbreviation for the China National Accreditation Service for Conformity Assessment. A system in which CNAS examines testing laboratories to determine whether they conform to the requirements of ISO/IEC 17025 standards for testing laboratories specified by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), which are equivalent to those of the International Laboratory Accreditation Cooperation (ILAC), and accredits the testing laboratories that satisfy the requirements.



For more information



Case 3 Delivering an Integrated Solution to Realize a Sustainable Society

The demand for improving efficient energy management in battery-based applications and reducing GHG emissions is growing rapidly these days. OMRON contributes to achieving carbon neutrality with customers and secure people's lives through providing high-capacity relays with low heat generation developed by using its core "connecting" and "switching" technologies. Schneider Electric (SE), a multinational corporation specializing in energy management and automation solutions, offers fully integrated Uninterruptible Power Supply (UPS) solutions that provide highest levels of availability*2, reduced total cost of ownership (TCO)*3 and improved energy efficiency. For more than 20 years, OMRON has been facilitating SE with sophisticated, high-quality devices adding unique values in different applications. As the demand for higher efficiency in energy utilization continues to grow, UPS systems are required to operate at higher capacity with secure functioning while reducing its footprint and generating less heat. Sympathizing with the vision of solving social issues, engineers from both companies across regions came together for brainstorming sessions focusing on the end results. The mutual knowledge exchange on ways to make applications more energy efficient and SE's clear vision for UPS accelerated the development. As a result, the UPS series Galaxy VS reduced energy losses while at the same time optimizing the physical size and material consumption. A key contributor to the project's success



UPS series Galaxy VS; used in industrial and datacenter applications

OMRON High-Capacity Relays (G7EB series)

were OMRON's high-capacity power relays offering low contact resistance that suppress heat generation. The benefits of OMRON relays can be adopted in a wide range of energy applications which will create an even bigger impact in reducing carbon footprint. Working together, OMRON and SE will continue providing solutions for highly efficient energy management and create new value to contribute to a safer society.

*2 Availability: be able to use all the time
*3 Total Cost of Ownership (TCO): Total cost from purchase to disposal

Sales Director, Asia Pacific
Foo Su Peng (left)

Sales Manager, Benelux & Denmark, Europe
Patrick Lof (right)



Comments from Our Partner

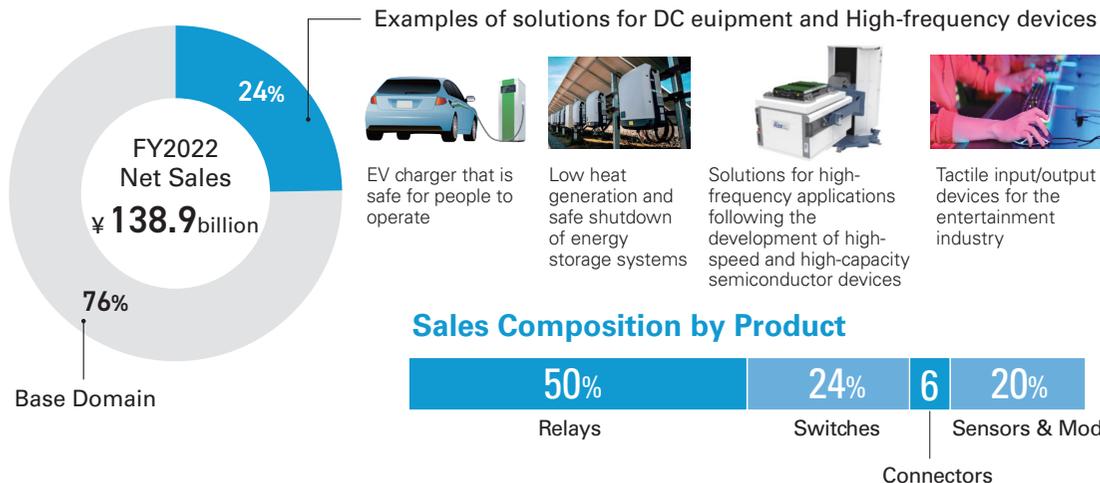
We chose OMRON as partner for our latest UPS development project since OMRON is considered one of the leading manufacturers of PCB-mounted relays. Due to tight footprint and energy efficiency constraints, we had to push the limits of power capacity and efficiency, without compromising reliability. With the G7EB relay series, OMRON fulfilled all the requirements for our applications, and we were able to reduce size, cost and losses compared to a conventional contactor-based solution. During the development phase, we had close collaboration with OMRON, not only to meet the project timeline, but also highly technical discussions related to capacitive load switching capability and physical positioning of the relay. After a successive product launch with the G7EB relay, we strived to push the technical limits even further. We challenged OMRON to increase the carry current capability, and this has resulted in the recent release of the G7EB-1A-E series where carry current is increased from 100A to 120A which aligns perfectly with our latest project development.



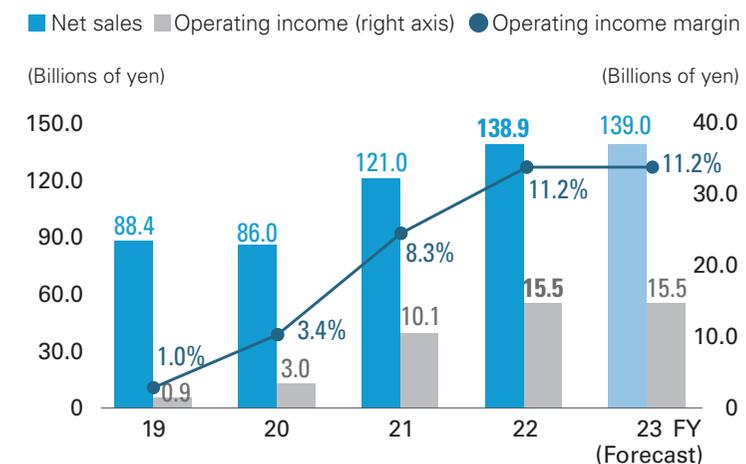
Senior Electronic Engineer
Jonas Mouridsen



Sales Composition by Business Domains



Net Sales / Operating Income / Operating Income Margin



INPUT

- R&D cost: ¥5.3 billion (results for FY2022)
- Capital expenditure: ¥9.6 billion (results for FY2022)
- Strengthened R&D system
 - Consolidated development bases (from 6 to 1) with the aim of reducing product release speed by 50% or more.
 - Established an engineering department at Shenzhen Plant in China (FY2022)
- Installed solar power generation systems at all five production sites in Japan
- Launched the DMS GREEN PROJECT, a project to promote activities that contribute to carbon neutrality initiatives through business (FY2022)

OUTPUT

- Net sales: ¥138.9 billion (+14.8% YoY)
- Operating income: ¥15.5 billion (+54% YoY)
- Development of technologies and products that contribute to achievement of carbon neutrality and realization of a digital society
- Commercialization of a new type of IoT weather sensor that helps mitigate climate change and disaster risk
- Expansion of the product lineup of high-capacity relays with low heat generation that contribute to achievement of carbon neutrality
- Expansion of clean energy production
 - Replacing electricity used at production sites in Japan with renewable energy is expected to reduce CO₂ emissions by approximately 1,200 tons per year (estimated).
- Number of products sold that contribute to the diffusion of renewable energy and high-speed communication
 - For DC equipment: 10 million units
 - For high-frequency devices: 61 million units

OUTCOME

- Contributed to the improvement of human life on the planet and the development of society through the diffusion of new energy and high-speed communications
 - Social value KPI: 10 million units for DC equipment, 60 million units for high-frequency devices (results for FY2022)



SDGs 9.4.1