

SHIMADZU REPORT 2017

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Path for Constant Innovation and Growth

Shimadzu Contributes to a More Convenient, Safe, and Secure Society Through Science and Technology

Around 1875, about 140 years ago, our founder, Genzo Shimadzu Sr. was involved in manufacturing physics and chemistry instruments requested by Europe and American researchers, based on the latest technologies he learned from them. That marks the beginning of our history as the Shimadzu Corporation.

The resolve of our predecessors, in the early period after Shimadzu was founded, to supply what customers needed is still carried on to this day in our current resolve to use science and technology to meet the needs of society and customers and help achieve a more convenient, safe, and secure society. Therefore, it can be said that our history is a history of contributing to society.

Today, science and technology is becoming increasingly important for solving the increasingly complex and diverse challenges of society.

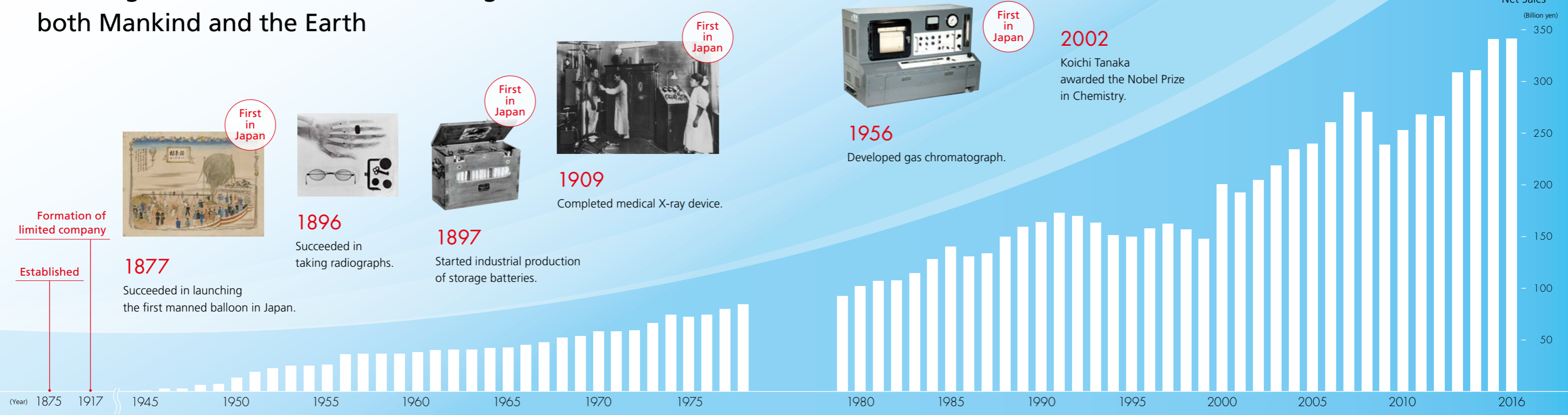
Consequently, we will continue to work tirelessly to acquire new knowledge and skills and contribute to society by providing solutions for creating new things and achieving things no one has ever accomplished before.

Corporate Philosophy

Contributing to Society through Science and Technology

Management Principle

Realizing Our Wishes for the Well-being of both Mankind and the Earth



Formation of limited company

Established



1877

Succeeded in launching the first manned balloon in Japan.

First in Japan



1896

Succeeded in taking radiographs.



1897

Started industrial production of storage batteries.

First in Japan



1909

Completed medical X-ray device.

First in Japan



1956

Developed gas chromatograph.

First in Japan



1961

Developed remotely controlled fluoroscopy system.

First in the world



2003

Developed world's first cardiovascular diagnostic X-ray system equipped with a direct-conversion flat panel detector (FPD).

First in the world



1996

Started supporting the United Nations University Environmental Monitoring and Analysis in the East Asian Region Project (currently still supports the project).

2010

Developed first high-end liquid chromatograph mass spectrometer made in Japan.



2016

Developed the LIGHTVISION near-infrared fluorescence imaging system that provides supports for diagnosing metastasis during breast cancer surgery.



2014

Developed Elmammo breast PET system for diagnosing cancer.

Shimadzu Corporation Business Segments

Shimadzu Supplies Products and Services Globally in Industrial, Medical, and Academic Research Fields

Analytical & Measuring Instruments

We provide high-performance analytical instruments to support research, technology development, and quality control in medical, food, materials, and a variety of other fields.



High-Performance Liquid Chromatograph Mass Spectrometer



Precision Universal Testing Machine

Medical Systems

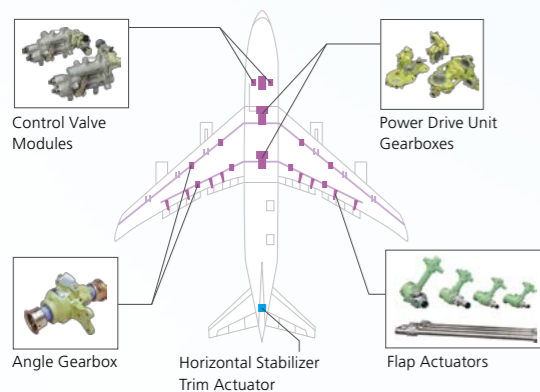
We provide medical systems for supporting accurate diagnoses to help maintain and improve health.



Angiography System

Aircraft Equipment

We provide cutting-edge aircraft equipment to help ensure safety, improve comfort, and lower stress.



Flight Control System

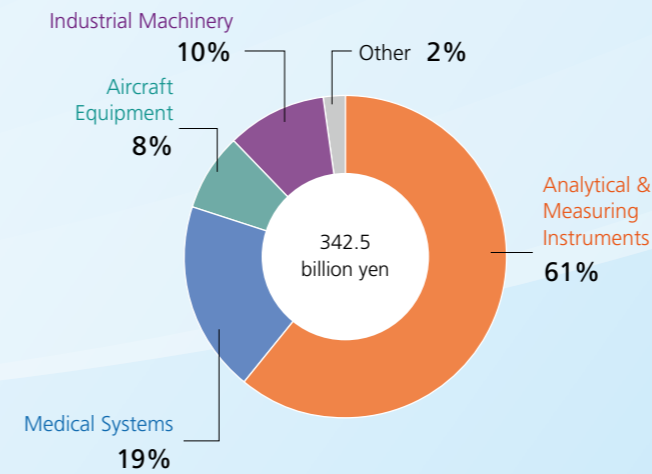
Industrial Machinery

We support advanced manufacturing with high-performance key components to help promote industrial development.

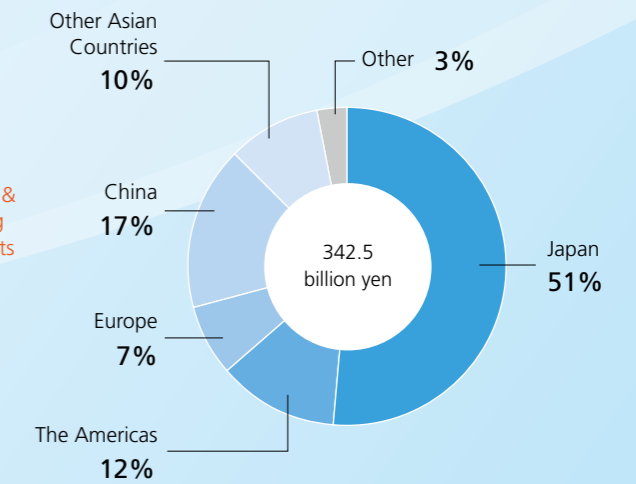


Turbomolecular Pump

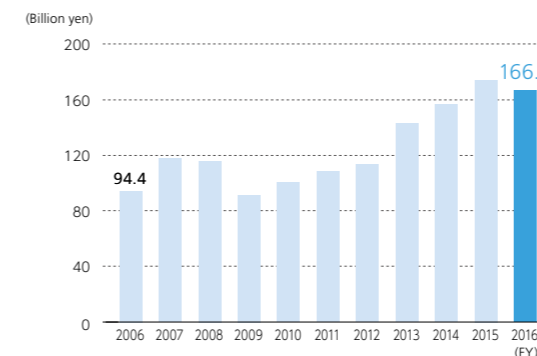
Sales Ratio by Business Segment (FY 2016)



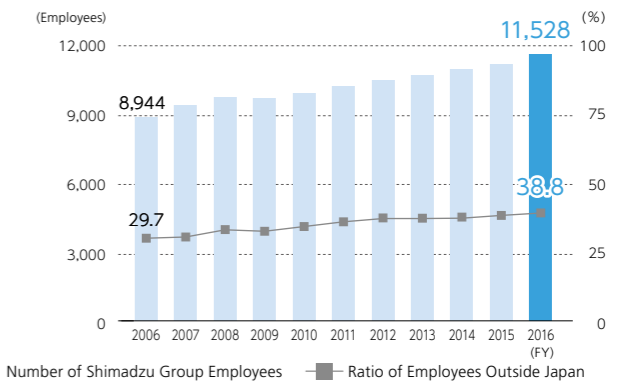
Sales Ratio by Region (FY 2016)



Sales Outside Japan



Number of Shimadzu Group Employees and Ratio of Employees Outside Japan



Shimadzu Technologies and Products Serving Society

Shimadzu Supports a Healthy and Comfortable Life and a Safe and Secure Society



Transport

Supply of reliable power units used for special-purpose vehicles

Hydraulic Gear Pumps

Energy

Support for researching and developing solar panels with high power conversion efficiency

UV-VIS Spectrophotometer

Environment

Environmental conservation based on monitoring components in effluent waters from factories and wastewater treatment plants

Online TOC Analyzer

Semiconductor/ Electronics

Supply of vacuum environments essential for manufacturing processes in smartphone and solar panel production

Turbomolecular Pump

Transport

Supply of equipment and systems for ensuring safe and comfortable aircraft operation

Flight Control System

Infrastructure

Support for increasing the safety of public infrastructure by evaluating the endurance of structural members and materials

Precision Universal Testing Machine

Medical Care

Support for diagnosis and treatment by medical institutions

Angiography System

Pharmaceutical

Support for the research, development, and quality control of new medicines

Liquid Chromatograph

Material

Support for developing products with higher quality and higher functionality by evaluating the properties of new materials

Scanning Probe Microscope

Foods

Analysis of residual pesticides and contaminants to ensure food safety

Gas Chromatograph Mass Spectrometer

- Medical Care**
- Support for the diagnostic treatment at medical institutions
 - Support for the research and development of new medicines
- Foods**
- Characteristic evaluation and component analysis of raw materials
 - Safety evaluation
 - Flavor and texture measuring tests

- Pharmaceutical**
- Analysis and evaluation at development process
 - Support for the quality control
 - Support for the control of production facilities
- Environment**
- Analysis and measurement of atmosphere, water, and soil
 - Analysis of emissions and waste substances

- Energy**
- Higher efficiency of solar panels
 - Support for the quality control
 - Support for the control of production facilities
 - Analysis and evaluation for development of next-generation batteries (solar panel and lithium ion batteries)

- Material**
- Analysis and evaluation of oil chemical products and new materials
 - Analysis and evaluation of metal, glass, and ceramic materials
- Semiconductor/ Electronics**
- Semiconductor production process
 - Displays production process

- Transport**
- Safety flight of airplane and comfortable passenger environment
 - Evaluation tests for automobile safety and comfort
 - Power unit for industrial vehicles and construction machinery
- Infrastructure**
- Testing fatigue/endurance and measuring deterioration of public and industry infrastructure
 - Various monitoring services and various deterioration diagnostic services

Solving Challenges by Using the Power of Science and Technology to Create Value for Stakeholders

Teruhisa Ueda

Representative Director, President & CEO



Basic Policy of Shimadzu Corporation

Due to global economic and population growth, societies are facing increasingly complex and diverse challenges.

Nevertheless, for over 140 years Shimadzu has remained committed to improving human health, creating a safe and secure society, and promoting industrial development based on its corporate philosophy "Contributing to Society through Science and Technology" and management principle of "Realizing Our Wishes for the Well-being of both Mankind and the Earth."

By supplying products and services that solve the increasingly complex and diversified challenges and needs of society using the technologies and expertise cultivated through Shimadzu's extensive history of operating businesses, Shimadzu aims to achieve a society where all people are able to enjoy a happy life, such as where they can enjoy a rich and varied diet, early detection of diseases, and a global environment where they can live without worry.

Goals of Shimadzu Corporation

We consider the corporate value of Shimadzu to be the total value provided to stakeholders such as yourself. Earning the trust of various stakeholders, such as customers, shareholders, business partners, employees, and local communities, will lead to sustainable growth and development for both Shimadzu businesses and society.

Therefore, three criteria for activities have been specified for earning that trust.

- I. Achieves a sustainable, safe, and secure future.
- II. Achieves harmony between globally diverse people and society.
- III. Protects the rich natural environment for future generations.

Creating Value Continuously

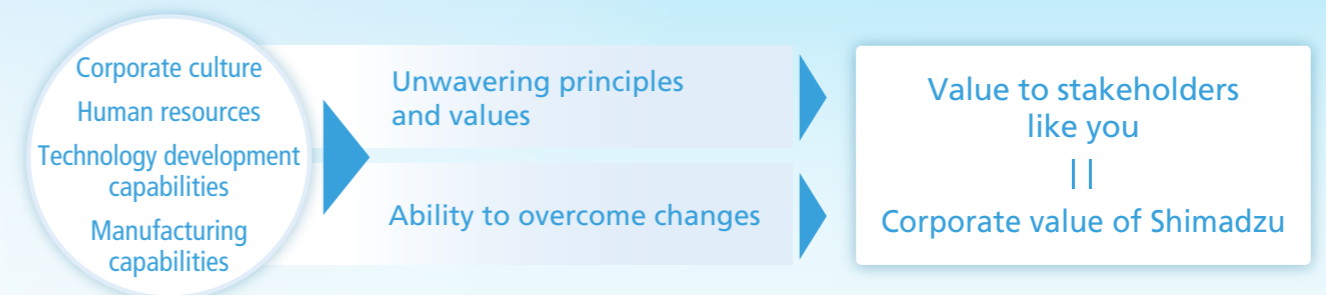
In addition to having an unwavering principles and values, which is at the heart of Shimadzu's corporate philosophy and management principle, the ability to overcome changes will result in continuously creating value.

Our ability to overcome changes can be improved by further improving our existing strengths, namely corporate culture, human resources, technology development capabilities, and manufacturing capabilities to increase our competitive advantages, and by strengthening measures to help create value.

For over 140 years since Shimadzu was founded, our corporate culture has been handed down to each successive generation as an approach for taking on the challenge of constantly implementing reforms necessary to meet the needs of each era as the business environment changes. To firmly establish a corporate culture that is based on ceaselessly pursuing innovation, the Shimadzu Foundation Memorial Hall was established in 1975 to summarize Shimadzu's history since the company's foundation. The Shimadzu Foundation Memorial Hall serves as a forum for visitors to learn about the history of how Shimadzu's founders engaged in measures based on careful consideration of what customers needed. It also provides a means for confirming and carrying on the company's traditions maintained since its foundation. It truly represents the foundation for our corporate culture.

Furthermore, our corporate culture is formed by people. Consequently, human resources are very important for creating new value. To enable optimal organization and deployment of employees throughout the entire Shimadzu Group and to ensure each employee is free to achieve befitting results, we have established a system for training global human resources that are able to think and act on their own and for developing their work experience at locations outside their country.

Creating Value Continuously



Introduction from the President

In addition, technology development and manufacturing capabilities are also essential for Shimadzu to supply innovative products and services based on science and technology. As conventional assumptions about business and how people live are shaken by the rapid spread of products and services based on new technologies, such as AI and IoT, these changes require that we discern the true essence of things and keep searching for and studying technologies from a medium and long-term perspective.

As we do so, one tool that will help us achieve sustainable growth over the medium and long term is called open innovation, which is a process of creating value by integrating different advanced technologies available from within and outside the company. Consequently, we have been conducting research and development at multiple innovation centers established as locations for engaging in partnerships (joint research) with leading customers throughout the world. By identifying specific needs of local regions and customer workplaces based on the results of such partnerships, we intend to deliver even more value to society and share it globally.

The New Medium-Term Management Plan (FY 2017 to FY 2019) Prepared

In our previous medium-term management plan, we specified the goal "Become an Innovative Company Contributing to the Growth of Customers Globally" and endeavored to develop and supply products and services that solved the challenges of customers. Those efforts resulted in successfully earning significant trust from customers and presumably resulted in expanded business.

However, considering increasingly rapid global trends related to global societal challenges, such as sustainable development goals (SDGs) adopted by the United Nations and the implementation of the Paris Agreement at COP21 (2015 United Nations Climate Change Conference or "21st Conference of the Parties"), these trends have expanded the demands on companies such as Shimadzu as well.

Given these circumstances, the medium-term management plan (FY 2017 to FT 2019) that was started in FY 2017 specifies expanding businesses in three areas, (1) human health, (2) safety and security of society, and (3) industrial development, based on the slogan "Become a Company That Solves Challenges in

Society in Collaboration with Partners All Around the World." In particular, that means we must strive to achieve sustainable growth and become an entity even more needed by customers and society by using our capabilities in science and technology and our network of resources within and outside the company to solve not only customer challenges, but also challenges faced by society in general.

Therefore, the medium-term management plan specifies three basic policies—invest in growth fields, strengthen profitability, and reform organizational foundation. Accordingly, to achieve above basic policies we will execute research, development, and technology strategies, manufacturing and logistics strategies, and sales and marketing strategies throughout the company. Furthermore, we will also engage in environmental management, diversity management, working practice reforms, and health management. Environmental management is intended to solve environmental problems and achieve business growth. Diversity management involves promoting the use of more diverse human resources, such as women, senior citizens, and global personnel. Working practice reforms involve reforming the workplace and how work is performed. Health management involves reducing the risk of employee illness by introducing health management systems based on Shimadzu technologies and achieving high employee productivity and satisfaction.

As we move forward, we will remain committed to applying our full effort toward using science and technology to solve challenges in society and creating value for stakeholders like you. Thank you for your continued support.

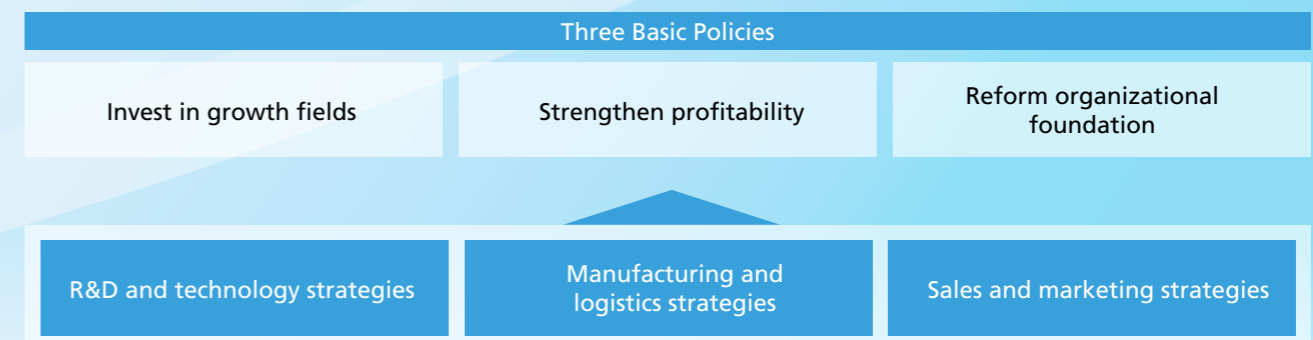
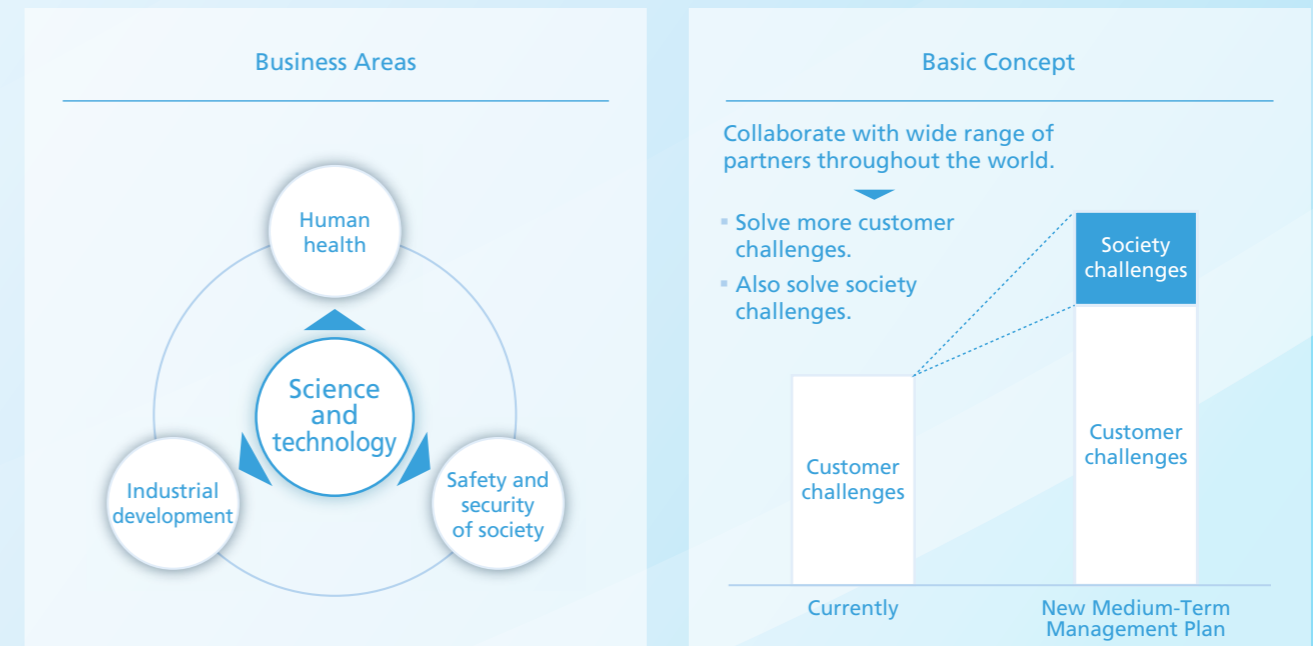


Medium-Term Management Plan (FY 2017 to FY 2019)

Vision for Shimadzu

Become a Company That Solves Challenges in Society in Collaboration with Partners All Around the World

Achieve Sustainable Growth and Become an Entity Even More Needed by Customers and Society



Performance Targets (FY 2019)

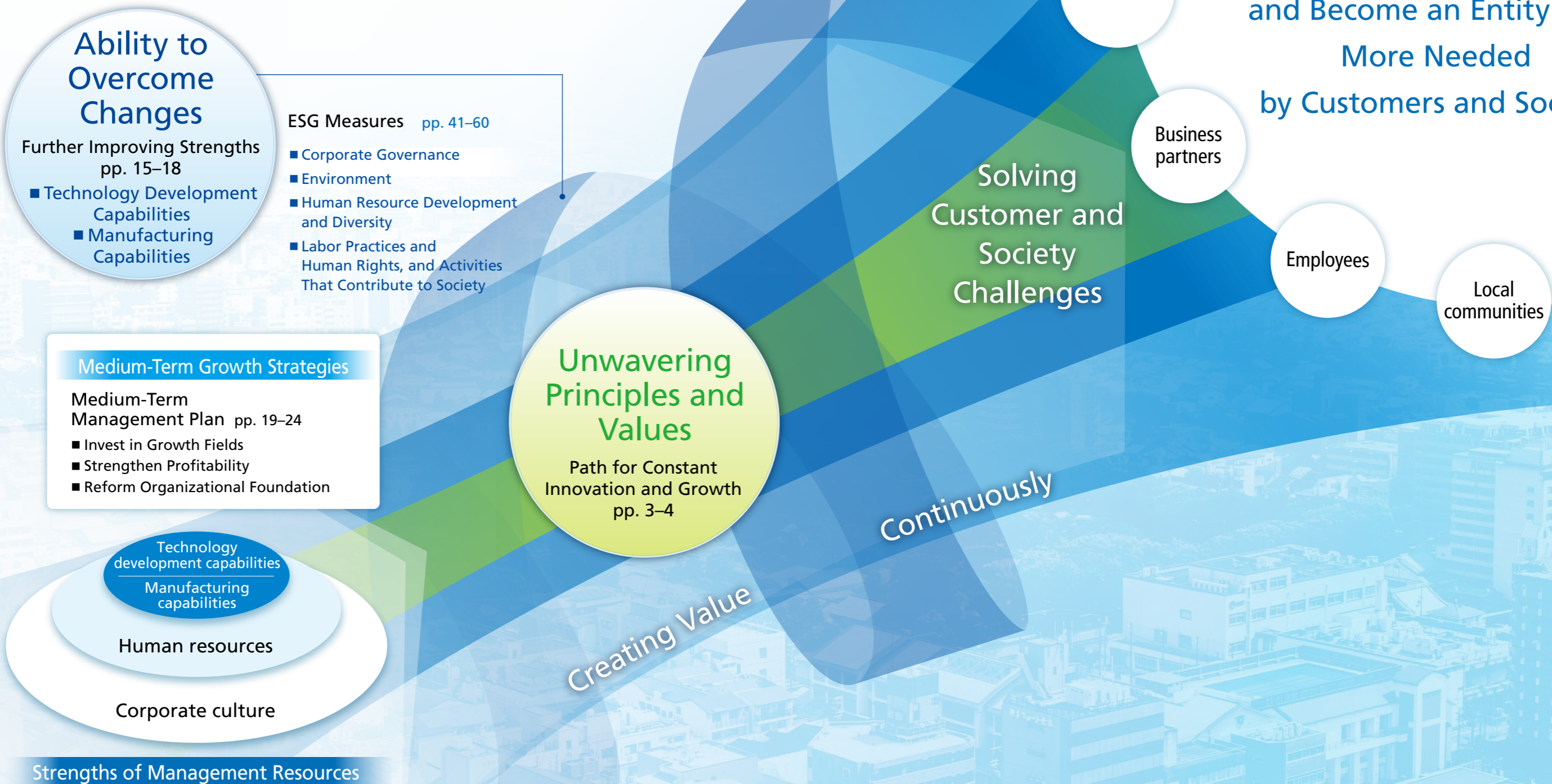


Models for Creating Corporate Value

Shimadzu Becomes an Entity Even More Needed by Customers and Society by Constantly Creating Value Through Unwavering Principles and Values and an Ability to Overcome Changes

Providing Value to Stakeholders

Achieve Sustainable Growth and Become an Entity Even More Needed by Customers and Society



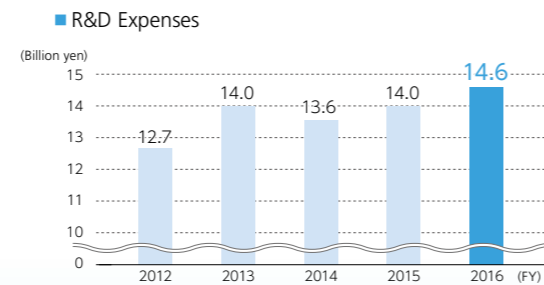
Further Improving Strengths—(1) Technology Development Capabilities

Shimadzu Keeps Supplying Products and Services That Solve Challenges in Society by Developing Advanced Technologies

Research and Development, and Acquiring Technology

Basic Policy

Ever since Shimadzu was founded, we have been supplying innovative products and services useful to customers. Therefore, research and development serves as a critical lifeline of Shimadzu that requires we continue engaging in ambitious research and development work intended to acquire advanced technologies. Accordingly, we will continue to generate new products and services to serve as the motive power for additional growth, both for customers and Shimadzu, and will contribute to solving challenges in society through science and technology.



Developing Core Technologies

We are committed to developing products and services based on core technologies possessed by Shimadzu and creating new markets.

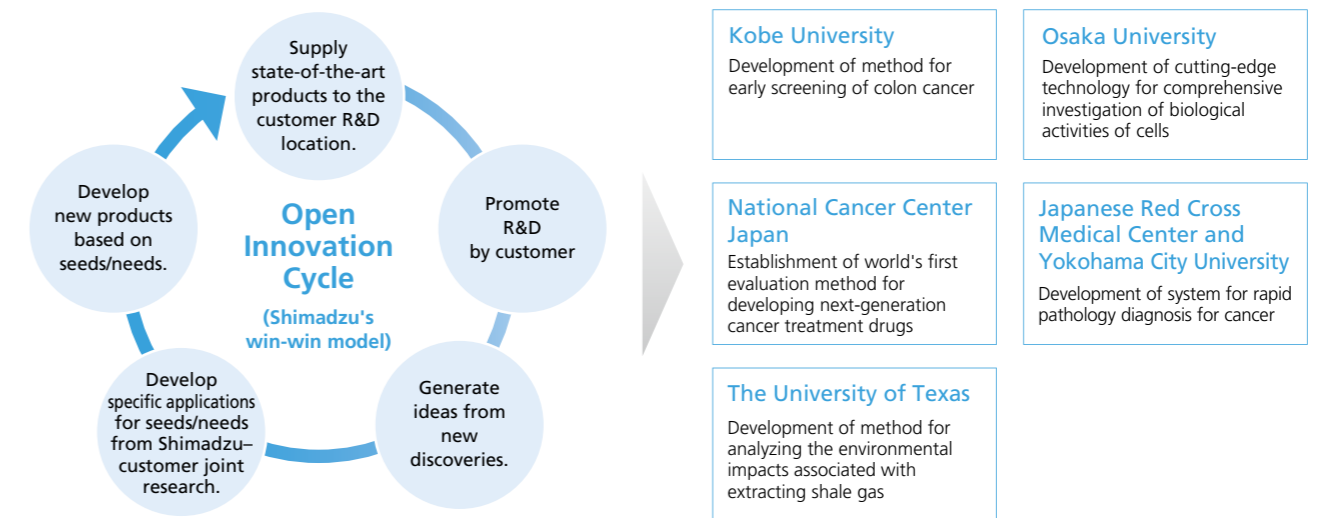


Open Innovation by External Collaboration

Given the dramatic acceleration in technical innovation in recent years, significantly higher development efficiency levels are required. To further increase the speed of technology acquisition, Shimadzu is creating value by actively promoting joint research and open innovation work with universities, research institutions, companies, and other external entities. Shimadzu's model for open innovation is based on

building a win-win relationship with customers. First, Shimadzu promotes customer research and development using products and services supplied by Shimadzu. That progresses to joint research with the customer based on new things noticed during their research and development work. Finally, Shimadzu generates new products and services based on the joint research results.

Creating Value Based on Open Innovation



Feedback from a Partner

We are currently undertaking one of the most extensive investigations of the potential impact of hydraulic fracturing that is a procedure used to recover shale gas. In the process of fracking, a hole is drilled into the Earth after which a high-pressure liquid mixture of water, chemicals, and sand is injected into the rock. We previously had clarified the facts on finding highly levels of arsenic in groundwater near North Texas shale gas wells, and further studies have been completed in other parts of Texas. We currently have methods for both chemical and biological characterization that allow us to comprehensively evaluate environmental water quality. Collaboration and partnerships with SHIMADZU have been extremely productive in helping us meet our analytical goals. We also have a high expectation for SHIMADZU to collaborate in developing new streamlined solutions by analyzing big data in research areas as diverse as environmental contamination and disease biomarker discovery.



Intellectual Property Management

Basic Policy

Our basic policy is to create new value by acquiring intellectual property produced as results from research and development. Based on that policy, we are deploying a three-in-one intellectual property strategy that combines R&D and business strategies as well. In order to establish the foundation for sustainable growth over the long term, we submit about 500 patent applications per

year in Japan and about 300 per year outside Japan. As a result, the number of patents held by Shimadzu continues to increase each year and has surpassed 4000 Japanese patents in FY 2016. To support global business development in recent years, we have also increased the number of patents outside Japan. In FY 2016, Shimadzu held almost 2000 patents outside Japan.

Further Improving Strengths—(2) Manufacturing Capabilities

Shimadzu Is Committed to Supplying High-Quality Products by Building Rapid and Accurate Network Capabilities for Processes from Manufacturing to Sales and Aftermarket Services

Manufacturing and Quality Control Capabilities

Basic Policy

To ensure we can sensitively identify market trends throughout the world and supply competitive products in a timely manner, we are building a network of production capabilities closely tied to respective local regions. Furthermore, to ensure customer

satisfaction throughout the world, we are involved in improving quality at all product life cycle stages, including marketing, market surveying, product design, development, production, and aftermarket services.

Manufacturing Locations

We have a total of four production locations in Kyoto and other areas of Japan and six locations outside Japan, including in the United States, Britain, China, Philippines, Vietnam, and Malaysia.

Analytical & Measuring Instruments

- 1 SHIMADZU U.S.A. MANUFACTURING, INC.
- 2 KRATOS GROUP PLC.
- 3 SHIMADZU (SUZHOU) INSTRUMENTS MANUFACTURING, CO., LTD.
- 4 SHIMADZU PHILIPPINES MANUFACTURING INC.
- 5 SHIMADZU MANUFACTURING ASIA SDN. BHD.

Medical Systems

- 6 BEIJING SHIMADZU MEDICAL EQUIPMENT CO., LTD.
- 7 SHIMADZU VIETNAM MEDICAL HI-TECH COMPANY LTD.

Industrial Machinery

- 8 TIANJIN-SHIMADZU HYDRAULIC EQUIPMENT CO., LTD.
- 9 NINGBO SHIMADZU VACUUM TECHNOLOGY DEVELOPMENT CO., LTD.

Aircraft Equipment

- 10 SHIMADZU PRECISION INSTRUMENTS, INC.



Striving to Achieve Maximum Quality

Measures and processes for ensuring product quality and safety are managed in accordance with the ISO 9001 international standard for quality management systems. The Head Office/Sanjo Works in Kyoto started obtaining certification for each division in 1994. In addition, they obtained ISO 13485 certification for medical device requirements and JIS Q 9100 certification for aircraft equipment.

Similarly, as of the end of March 2017, certification had been obtained at 13 subsidiaries in Japan and 24 subsidiaries outside Japan.

The Quality Center was established at the Head Office/Sanjo Works. The Quality Center includes three small and large anechoic chambers, with one that is compatible with the 10-meter method. It also includes a department (EMC Center) that specializes in measuring electromagnetic compatibility (EMC)*1. In August 2014, the EMC Center obtained accreditation as a laboratory facility compliant with international ISO/IEC 17025 standards. Consequently, test reports issued by the EMC Center are recognized not only in Japan, but also throughout the world. Furthermore, the center is registered by TUV Rheinland Japan (TRJ) as an accredited international third-party testing laboratory. As a highly

trusted testing laboratory, that also provides additional credibility to the reliability of Shimadzu products in general.

We have also established capabilities for complying with the EU RoHS Directive*2 and other environmental regulations based on voluntary analysis of hazardous substances contained in parts and materials used in products.

*1 EMC measurements evaluate both whether electromagnetic waves emitted from instruments affect surrounding devices and whether instruments are resistant to malfunction from exposure to electromagnetic waves from surrounding areas.
*2 The RoHS Directive (2011/65/EU) restricts the use of certain hazardous substances in electrical/electronic equipment.



Anechoic Chamber at the Quality Center

Increasing Customer Satisfaction

Customer satisfaction surveys are periodically conducted to improve the quality of our products, systems, and services from a customer-oriented approach. The valuable opinions and requests obtained from customers are then shared with relevant personnel to improve products and services.

To ensure a rapid response to customers that purchase products and to further improve customer satisfaction, detailed aftermarket services are offered for each product.

For example, multi-vendor services (MVS) are offered to help customers of analytical and measuring instruments optimize their testing and research operations by providing comprehensive maintenance services for all applicable instruments, including non-Shimadzu brands. In addition, Shimadzu Access Corporation offers a global service contract ("ASSIST Plan") that ensures that standard operating procedures for analytical and measuring instruments specified by the customer's head office or mother plant are implemented properly at their facilities in other countries.

The Medical Systems segment has established a Customer Support Center to quickly respond to customer telephone inquiries 24-hours a day, 365 days a year.

Digital X-Ray Radiography System Receives Best in KLAS Award

For the second consecutive year, Shimadzu's department responsible for medical digital X-ray systems received the Best in KLAS award from the independent review company KLAS Research.



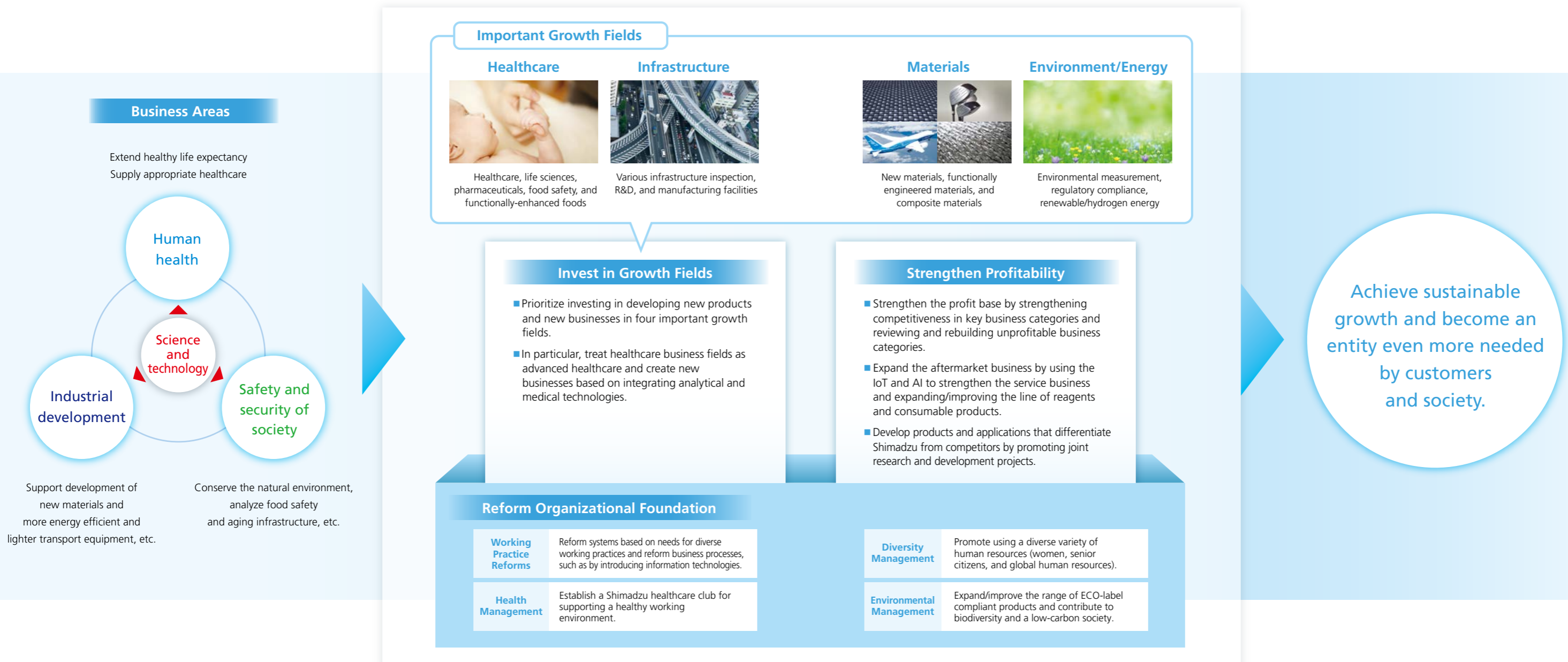
Medium-Term Management Plan (FY 2017 to FY 2019)

As globalization progresses and society challenges become increasingly complex, solutions will require collaborations that extend across a broader range of conventional industrial, administrative, and academic boundaries. Thus far, Shimadzu has offered high quality products based on science and technology and worked in cooperation with customers to develop businesses for solving such challenges. By further expanding that approach to solve not only customer challenges, but also society challenges in the business areas of human health, the safety and security of society, and industrial development in collaboration with various partners, Shimadzu intends to achieve sustainable growth and become an entity even more needed by customers and society.

Themes in the Medium-Term Management Plan

Become a Company That Solves Challenges in Society in Collaboration with Partners All Around the World

Net sales	Operating income	Operating margin	Overseas sales ratio	ROE
400.0 billion yen or more	45.0 billion yen or more	11% or more	50% or more	10% or more



Medium-Term Management Plan—Basic Policies (1)

Investing in Growth Fields Challenge of Advanced Healthcare Fields

Shimadzu Will Create New Businesses in Advanced Healthcare Fields by Integrating Analytical and Medical Technologies

Leading Global Healthcare in Visualization and Quantitation

Given the urgent need to reduce medical costs, Shimadzu believes prevention and minimally invasive treatments are very important. Considering that in vitro diagnostics is especially useful for preventing disease, a major advantage that Shimadzu has is mass spectrometers and mass spectrometry technology that can be used to measure substances for disease identification.

Furthermore, image processing technologies cultivated by Shimadzu for imaging with low X-ray exposure levels and near-infrared light, which offers superior body penetration characteristics, can be useful for minimally invasive treatments used to minimize the stress on patients during cancer or other treatment. These technologies can also help reduce treatment time, so further development of treatment technologies is also expected in the future.

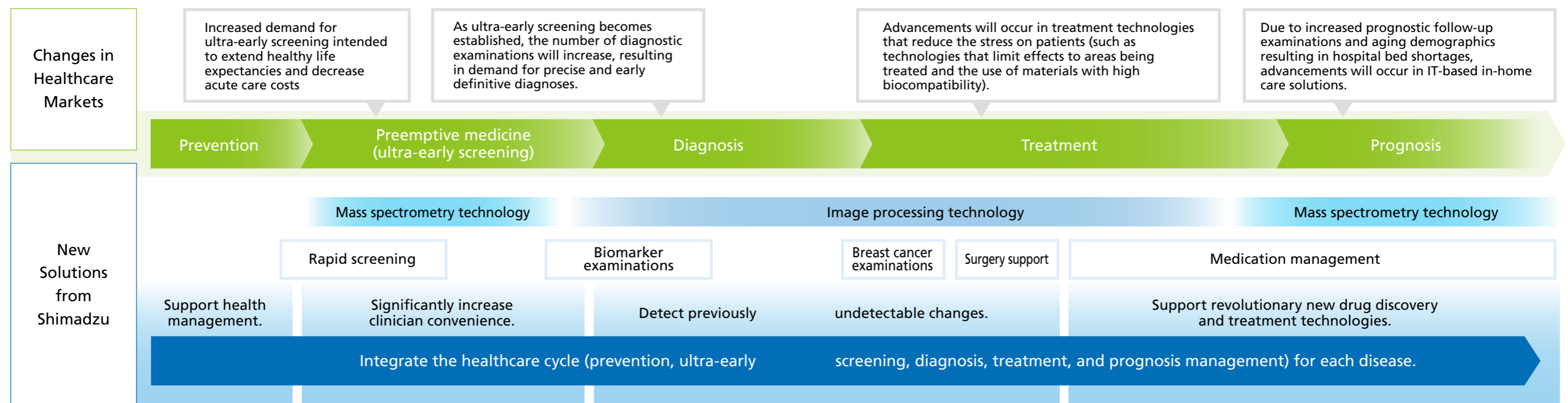
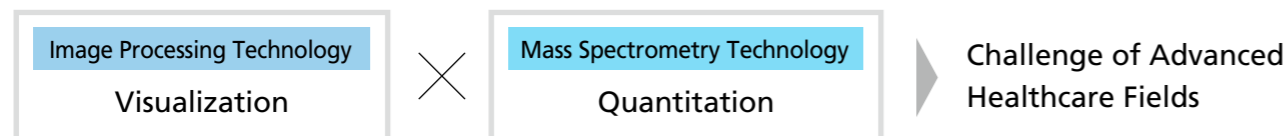
By strengthening solutions for ultra-early screening based on mass spectrometry technology and combining it with image processing technology, Shimadzu intends to offer new systematized solutions for each disease that extend from prevention to prognosis management. In April 2017, we established a new Healthcare Business Strategy Unit for creating new technologies that integrate analytical and medical technologies. By integrating visualization technology with quantitation technology, the new organization will build a highly unique business model for healthcare applications.

Promoting Open Innovation Based on Using Innovation Centers

Given the wide diversity in the world, it is probably not an exaggeration to say that there are as many different needs as there are customers. Therefore, we established innovation centers in various regions of the world to ensure we understand those needs accurately and satisfy them as quickly as possible. At the respective innovation centers in the United States, Europe, China, and other Asian countries, we will conduct joint research with leading customers and deploy the results globally. Thus far, joint research has been conducted mainly with academic institutions, but in the future we will promote open innovation by also actively engaging in joint operations with companies and regulatory institutions in various countries. In January 2019, we plan to establish a Healthcare R&D Center at our head office in Japan. The center will not only work on integrating analytical and medical technologies, it will also serve as an open innovation research facility for joint research with cutting-edge medical institutions.

Expanding the Reagent and Consumables Business Globally

For businesses in healthcare fields, it is also important to not only sell equipment, but also provide the service support that ensures customers can use products without worry, such as by selling reagents or periodically replacing consumables. Such support services provided to customers after they purchased the products are referred to as the aftermarket business and can be expected to provide a continuous source of reliable profit. To strengthen the aftermarket business, we will expand and improve our offering of Shimadzu products and expand the aftermarket business globally, while also using mergers and acquisitions to absorb businesses from outside Shimadzu.



Medium-Term Management Plan—Basic Policies (2)

Strengthening Profitability Challenge of Increasing Business Value

Key Businesses, Businesses for Profitability Reforms, and Businesses for Rebuilding

Analytical & Measuring Instruments businesses are considered key businesses. In addition to making key investments in mass spectrometers, we will also expand businesses and improve their competitiveness, such as by expanding/improving product lines and the aftermarket business.

Meanwhile, we will make improving the profitability of Medical Systems, Industrial Machinery, and Aircraft Equipment segments a foremost priority, such as by selecting and focusing products and strengthening application development capabilities to expand applications.

▶ For more details, see Strategies by Segment on pp. 29 to 30.

Strengthening Service Businesses Based on Using AI and IoT Technologies

By creating a system for linking data from the entire value chain, from manufacturing to sales and service, we will be able to respond more quickly to customer needs and offer products and services that more accurately meet those needs. We will offer new value by networking instruments and other equipment together for automation, data analysis, forecasting, or failure prediction purposes.

Analytical & Measuring Instruments Business ▶

Strengthening networked systems based on the LabSolutions integrated platform

In recent years, the increasing analytical speed and sample counts required, due to the growing demand for analysis and measurement in food safety and environmental conservation fields and due to increasingly intense international competition for corporate users, have resulted in a dramatic increase in the quantity of data handled. By quickly analyzing and diagnosing instrument operating history, maintenance data, or the massive amounts of data rapidly generated by various sensors in a short cycle, Shimadzu offers help with efficiently and appropriately managing customer data globally.



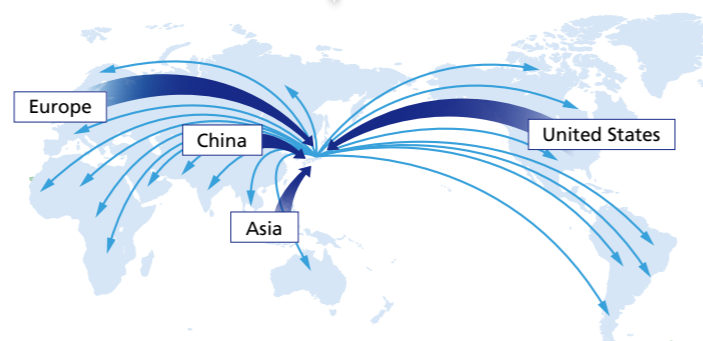
Expanding the Aftermarket Business by Expanding/Improving Product Line of Reagents and Consumables

When a customer introduces Shimadzu instruments, it results in supplying reagents and consumables, which can be relied on to provide a stream of ongoing profit. Consequently, we place significant importance on the aftermarket business, which involves a variety close interactions with customers even after products are sold. Therefore, we intend to expand/improve the reagent/consumables business, including by mergers and acquisitions, and strengthen the service business by offering multi-vendor services, for example, as the foundation for stable growth.

Developing Products and Applications Able to Differentiate Shimadzu from Competitors by Promoting Joint R&D

We are involved in joint research with leading customers at respective locations in the United States, Europe, China, and other Asian countries, to develop various application systems required in those markets. In addition to academic institutions, which have been the primary type of joint research partner thus far, we are also developing collaborative partnerships with corporations and institutions involved in regulation in various countries. By sharing the results from such measures globally, we intend to create unique products and applications that are ahead of competitors.

Sharing results globally from joint research with advanced customers at respective locations outside Japan



Medium-Term Management Plan—Basic Policies (3)

Reforming Organizational Foundation Challenge of Maximizing Abilities

Working Practice Reforms

Companies are increasingly expected to achieve diverse and flexible working practices that are better suited to the individual will and abilities of each employee and to their individual circumstances. As part of our efforts to create systems for improving productivity and supporting the ability of personnel to continue being successful in their work, in March 2017 we launched a project to implement working practice reforms. To improve tendencies for long working hours, the project involved reviewing every aspect of how personnel perform business processes, which has improved productivity by providing time for focusing on what really needs to be performed and achieving faster decision-making. Though we had already implemented systems for supporting personnel in their various personal or family life stages, such as child-rearing or nursing care stages, in the future we intend to introduce IT technologies for further improving the efficiency of business processes, and continue making improvements to achieve mutually beneficial results for both the working individual and the company.

Health Management

To realize our wishes for the well-being of both mankind and the earth, we issued a health declaration in October, 2017. We believe that promoting employee health management and health improvement will not only reduce medical costs, but also result in improved productivity and creativity. Therefore, we are focusing efforts on utilizing the healthcare solutions already available to Shimadzu for significantly improving the health of employees. Specifically, in FY 2017 we reduced each employee's risk of disease by introducing a wearable device-based health management system. We will also provide employees with health diagnoses based on Shimadzu's molecular diagnostics and medical technologies.

▶ For more details, see Special Feature 3—Creating a Workplace Where Employees Can Work Positively in Good Health on pp. 55 to 56.

Diversity Management

Diversity management has become widely known as a means of taking advantage of the diverse attributes available among personnel to maximize the abilities of each human resource and link them to company competitiveness and innovativeness. The important point is that diversity management is not a temporary measure, but rather an approach that is firmly rooted in the company from a medium and long-term perspective and that truly functions toward achieving our goals. In Japan, a key point has been promoting the more effective use of female employees. Consequently, we have been implementing career training, leadership training, networking sessions with outside companies, and so on, for women. Involving mainly the WISH project team started in 2015 for promoting the effective using of women, employee views were surveyed and fed back to company management.

▶ For more details, see Special Feature 3—Creating a Workplace Where Employees Can Work Positively in Good Health on pp. 55 to 56 and Diversity on p. 58.

Environmental Management

Protecting the environment is not only a responsibility of companies, it can also help reduce costs by reducing waste and improving productivity and is essential to Shimadzu in terms of increasing sales by supplying environmentally-beneficial products that help customers with environmental improvements as well. Consequently, we intend to engage even more actively in environmental measures, such as expanding the Eco Products Plus, environmentally-friendly products developed based on Shimadzu's own standards, conservation of biodiversity through business practices, products, and services, and contribution to achieving a carbon-free society.

▶ For more details, see Special Feature 1—Solving Challenges in Society in Collaboration with Partners All Around the World on pp. 27 and 28 and Environmental Measures on pp. 49 to 54.

Business Area—Human Health

Preventing the Onset or Severity of Diseases in Newborns by Measuring Disease Factors in Blood



Feedback from a Partner ▶▶

False Positives Dramatically Decreased by Introducing Tandem Mass Spectrometry

The tandem mass spectrometry method established by joint research with Shimadzu Corporation significantly improved examination precision compared to the Guthrie method. Consequently, there was a sharp decrease in cases with false positives and helped relieve the psychological stress on families of children waiting for the results of examination for the suspicious abnormalities. Furthermore, due to its simple method of diagnosing rare diseases, it has caused major changes in the practice of emergency pediatric medicine. In the future, we intend to research methods for saving children with congenital immunodeficiency disorders.



Mr. Seiji Yamaguchi
Specially Appointed Professor
Department of Pediatrics,
Faculty of Medicine,
Shimane University

Measures by Shimadzu Corporation

Tandem Mass Spectrometry Method Established from Joint Research with Shimane University Dramatically Shortens Analysis Time

In the business area related to human health, we contribute to life sciences involved in identifying biological phenomena for business fields related to human health, supply pharmaceuticals and diagnostic and treatment devices for supporting medical systems, and help develop functionally-enhanced foods to improve health, and so on. Neonatal mass screening involves taking a tiny quantity of blood and examining it for any hidden congenital metabolic abnormalities, so that the occurrence of disabilities can be prevented. Currently in Japan, all newborns are tested by neonatal mass screening, based on a system of public reimbursement of medical expenses by local governments.

Through joint research with Professor Seiji Yamaguchi of the Shimane University Faculty of Medicine (specially appointed professor as of April 2016), who is Director of the Japanese Society for Mass Screening and the leading person to research organic acid metabolism disorders, we have been involved in developing quick and easy neonatal mass screening systems.

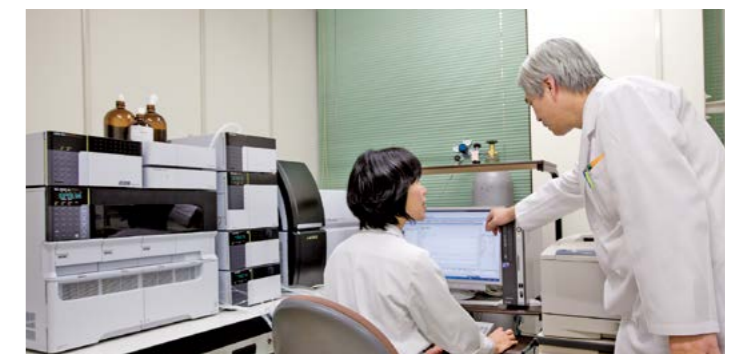
For many years, the Guthrie method has been used for neonatal mass screening. It uses paper soaked in the blood

sample and was developed in the 1960s and spread throughout the world due to its low screening cost. In contrast, the method we developed uses two mass spectrometers configured in series and is referred to as tandem mass spectrometry method. With an analysis time of only 1 to 2 minutes per sample and analytical peaks appearing clearly on recording paper, each system can examine 60,000 patients per year. Furthermore, it is also able to simultaneously screen for over 20 diseases that cannot be screened with the Guthrie method. Moreover, it offers dramatically higher precision than the Guthrie method and dramatically fewer false positives. Consequently, it helps improve the life quality of patient families.

Currently, we are in the process of expanding the availability of the screening method from developed economies, such as Japan, to newly emerging economies as well, where less than 10 % of all newborns are screened for congenital disorders.



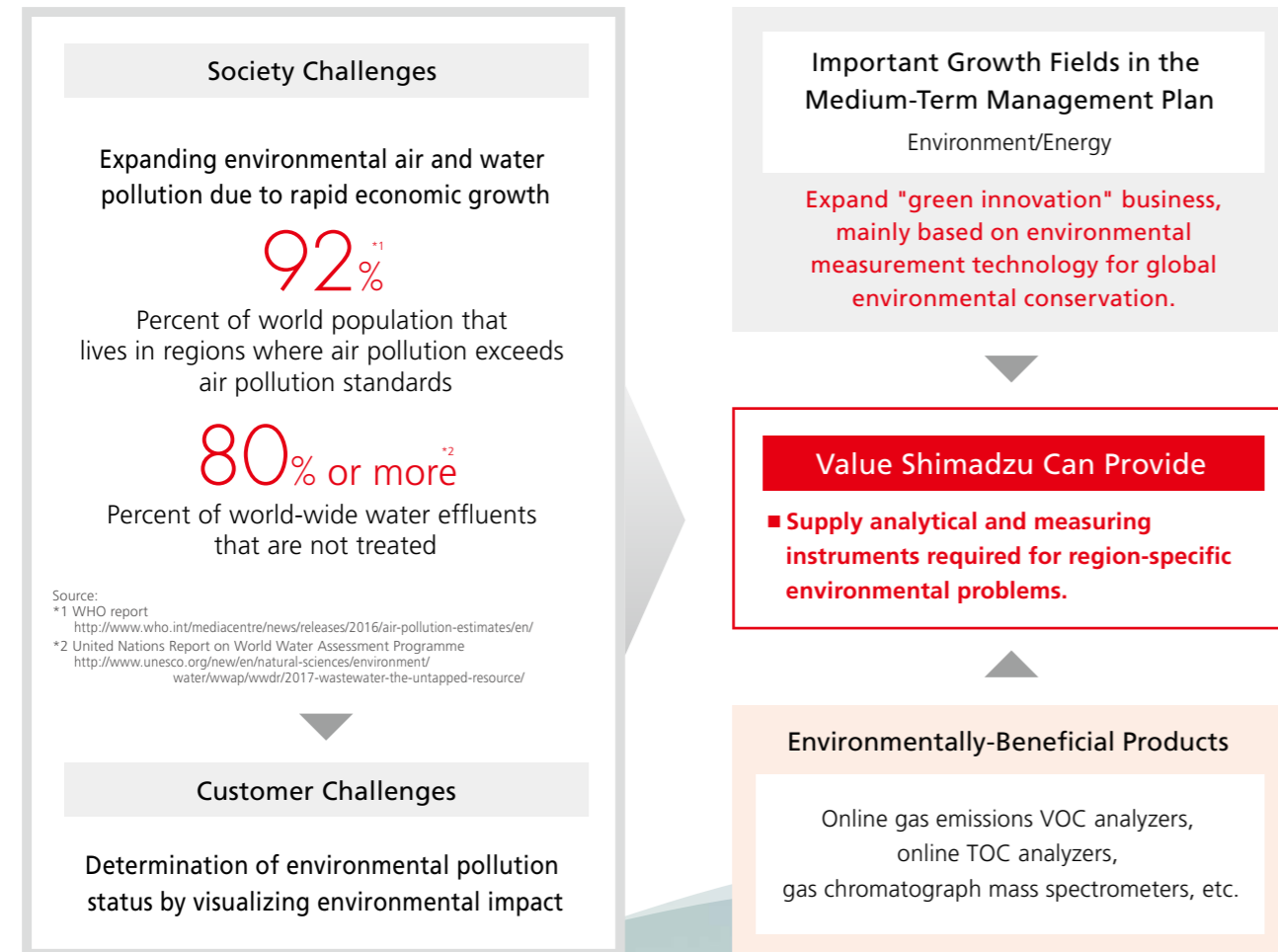
Disease Factors Are Measured from Blood



Blood Is Examined Using Mass Spectrometers

Business Area—Safety and Security of Society

Contributing to Solving Environmental Problems Around the World with Analytical and Measuring Technologies



Measures by Shimadzu Corporation

Shimadzu Supplies Analytical and Measuring Instruments Required for Region-Specific Environmental Problems to Various Regions Throughout the World

Various regions suffer from a wide variety of environmental problems that are based on geographic, economic, or other circumstances unique to their country. Environmental pollution is especially prominent in the Asia region, due to urban development and economic activity, with some regions facing new problems after achieving a certain amount of economic growth.

■ Fighting Air Pollution in China

Assuming air pollution with particulate matter rates over PM2.5 is caused by volatile organic compound (VOC) components, China has been establishing stricter regulations on such components within China. VOCs have also been newly included from 2016 in restricted substances specified in the 13th Five-Year Plan. Since Shimadzu has a long history of developing technology for analyzing trace components in gases and technology for environmental measurement, integrating these technologies, Shimadzu developed an online gas emissions VOC analyzer (VOC-3000F) specifically for the China market. The system continuously measures the VOC level in gases emitted from plant manufacturing processes to monitor the operating efficiency of emissions gas treatment equipment or confirm that emissions are below environmental regulatory standards. Consequently, it is being used by customers in chemical and other industries.



Online Gas Emissions VOC Analyzer (VOC-3000F)

■ Fighting River Water Pollution in India

Given the rapid economic continuing in India, environmental pollution is becoming an increasingly serious problem each year. Therefore, the Ministry of Environment, Forest and Climate Change has been leading efforts to build wastewater treatment plants and other infrastructure. In 2015, standards were specified for water discharged into the Ganges River and other waters by businesses in the materials, chemicals, and other industries, and installation of monitoring instruments and data submission were mandated.

Because Shimadzu's online TOC analyzers can accurately detect organic matter concentrations in effluent water

used as an environmental pollution index and are able to transfer data, many units continue to be used to monitor effluent water quality levels.

■ Cooperating with Vietnam Environmental Police

Vietnam is one of the fastest-growing emerging economies in the world.

Its swift growth has led to a significant increase in environmental pollution in Air, Water, Forests etc. According to Vietnam law, the Environmental Police, which belongs to the Vietnam Enforcement Force, was established in 2006 to prevent and fight against environmental crimes and violations by applying investigative techniques for inspecting enterprises and companies relating to environment protection. To conduct surprise inspections that are suspected of violations, they need analytical system that is transportable and can analyze samples rapidly. Therefore, in 2013 the Vietnam Environmental Police installed 2 Mobile Caravan Labs equipped SHIMADZU's state-of-the-art analytical instruments to conduct inspections on suspicious companies. SHIMADZU contributes to environmental conservation in Vietnam by these innovations that help in accurately analyzing a wide range of pollutants.



Mobile Caravan Labs of Vietnam Environmental Police Equipped with Shimadzu Analytical Instruments



Interior of Mobile Caravan Labs

Strategies by Segment

Shimadzu Will Achieve Additional Growth and Stronger Profitability in Four Business Segments

Business Strategies

We conduct business in four segments: Analytical & Measuring Instruments, Medical Systems, Aircraft Equipment, and Industrial Machinery. The medium-term management plan (FY 2017 to FY 2019) specifies measures for improving and expanding profitability based on achieving additional growth in the Analytical & Measuring Instruments segment, which is designated as Shimadzu's key business segment, implementing profitability reforms in the Medical Systems and Industrial Machinery segments, and rebuilding the Aircraft Equipment segment.

In the healthcare field, which has attracted attention throughout the world, we have established a Healthcare Business Strategy Unit to accelerate the process of integrating analytical and medical technologies in order to establish new highly unique business models in healthcare areas. To further accelerate the development of products and services by promoting open innovation, we plan to open a Healthcare R&D Center in 2019.

In addition, the plan designates aftermarket businesses as especially important measures for improving profitability. Therefore, we will accelerate the global expansion of aftermarket businesses by using AI and IoT technologies to develop new service businesses and expanding the reagent and consumables product line.



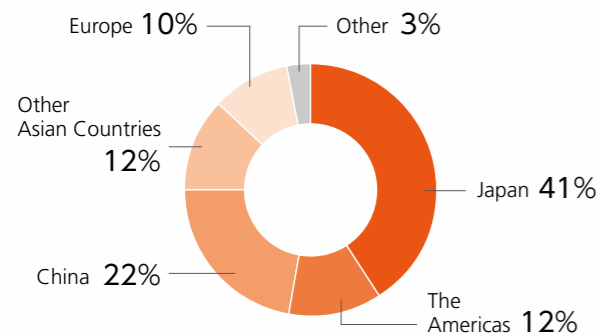
Analytical & Measuring Instruments Business

We contribute to social innovation by supporting manufacturing including food and medicines, environmental analysis of water quality and air pollution, and cutting-edge research such as life sciences.

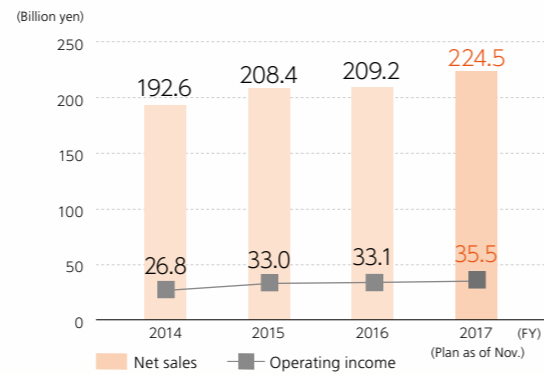
Shuzo Maruyama
General Manager, Analytical & Measuring Instruments Division



Net Sales by Region



Net Sales/Operating Income



Main Products

General-Purpose Analytical Instruments

- Mass spectrometers
- Chromatographs
- Spectrophotometers
- Biotechnology instruments
- Balances

Surface Analysis Systems

- Surface analysis and observation systems

Environmental Analysis Systems

- Water-quality analyzers
- Continuous emission monitoring systems

Testing Machines and Nondestructive Inspection Machines

- Material testing machines
- Fatigue and endurance testing machines
- Structure testing machines
- Nondestructive inspection machines
- High-speed video cameras
- Powder & particle size analyzers

Pharmaceuticals

Analyzing Impurities in Pharmaceutical Ingredients

Boasting the highest sensitivity levels in the world and the ultimate in high-speed performance, this system provides highly accurate data based on analyzing trace quantities in pharmaceuticals, such as impurities, active ingredients, or metabolic components.



LCMS-8060 Ultra Fast Liquid Chromatograph Mass Spectrometer

Improving the Efficiency of Drug Development

By offering remote operability and automatic analysis, this system provides improved productivity, easier operability, and smaller space requirements, which has been especially popular in pharmaceutical quality control fields.



i-Series Integrated Liquid Chromatograph System (Prominence-i and Nexera-i)

Analyzing Contaminants Adhered to Pharmaceuticals

This system uses reflection or transmission of infrared light to observe or analyze microcontaminants on the surface of pharmaceutical tablets.



AIM-9000 Infrared Microscope Automatic Contaminant Recognition System

Foods and Beverages

Analyzing Trace Components in Foods

This system is used for applications where ultra trace substances need to be analyzed, such as analyzing residual pesticides, dioxins, or endocrine disruptors in foods.



GCMS-TQ8050 Triple Quadrupole Gas Chromatograph Mass Spectrometer

Testing for Residual Pesticides in Foods More Rapidly

This system is especially useful for rapidly and automatically testing for large number of analytes, such as residual pesticides in foods.



Nexera UC Supercritical Fluid Extraction/Chromatograph System

Analyzing Contaminants in Public Drinking Water or Foods

This specialized software is designed specifically for analyzing the elements contained in samples and for determining identification results and a match score based on various data for identifying and qualifying organic matter. It is typically used for analyzing contaminants in public drinking water or foods.



EDX-FTIR Contaminant Finder/Material Inspector

Business Environment

Analytical and measuring instruments are used in a wide range of fields, with sales currently in a global expansion trend. Some surveys predict a high 4.4 % growth rate between 2013 and 2018 (multi-year growth rate).

For example, strong expansion is predicted in pharmaceutical and food fields, due to requirements for improved safety and the development of new drugs and functionally-enhanced foods. Growth rates are predicted to remain high in healthcare fields due to the expansion of application fields, such as diagnostics and examinations. In transport, petroleum, chemical, and electrical fields, demand is expected to expand for applications related to new materials development, alternative energies, and infrastructure. We are driving the analytical and measuring instruments market by offering products and services globally in 8 of the 10 sub-segments in that market. In the future, we will continue to release high value-added products by deploying businesses in healthcare fields and by strengthening collaborative work with outside entities.

FY 2016 Results and Challenges

In Japan, sales were strong and increased for liquid chromatographs, mass spectrometers, surface analysis systems, and other products in fields such as pharmaceuticals and chemicals.

In Europe, sales were strong for mass spectrometers in environmental testing and clinical medicine. In China, mass spectrometer sales were strong, due to private sector sales remaining strong in pharmaceutical and contract analysis fields and also due to public sector sales for large projects related to food safety, for example. In Southeast Asia, liquid chromatograph sales were strong and testing machine sales increased for large transport projects. In India, mass spectrometer sales were strong in pharmaceutical fields. In North America, mass spectrometer sales decreased in healthcare fields, but liquid chromatograph and other sales were strong. However, overall sales outside Japan decreased due to the strong yen. Therefore, in the future we will further expand businesses and improve profitability, toward our goal of becoming the number one broad-line analytical instrument manufacturer in the world, by mergers, acquisitions, and other measures to expand/improve product lines and improve our ability to offer customers solutions.



Key Measures in the Medium-Term Management Plan

1. Invest in Key Models

Mass Spectrometers (MS)

- Expand/improve product lines, such as MS products for rapid screening or high resolution.
- Develop expert systems based on using AI and IoT technologies for sophisticated data processing and analysis.
- Expand business based on expanding the range of MS application fields (such as molecular diagnostics and cellular analyses).

Liquid Chromatographs (LC)

- Expand/improve product line, such as for columns/reagents, automatic pretreatment systems, and new detectors.
- Use AI and IoT technologies to improve network systems and expand service businesses.
- Develop new products based on LC technologies that are part of a system, such as equipment for cell handling, cell cultivation, and cell metabolite analysis, and newly deploy the products in the regenerative medicine field.

2. Expand/Improve Product Line for Network Systems

Release Cloud-Based Systems and Strengthen Global Deployment

- Strengthen the LabSolutions network system as an integrated platform.
 - ▶ Expand/improve product line with cloud-based systems that use AI and IoT technologies.

- Expand service businesses that use various network systems.
 - ▶ Offer customer support for asset management of their instruments and global data management, for example.
- Deploy businesses in a broader range of fields, such as pharmaceuticals, environmental testing, chemicals, and contract analysis.
- Strengthen networking sales capabilities outside Japan.

3. Strengthen Development Capabilities Based on Innovation Centers

Promote Joint Development at Innovation Centers

- Strengthen ability to develop various application systems required in respective markets.
- In addition to academic institutions, also collaborate with corporations and institutions involved in regulation in various countries.
- In addition to healthcare, also deploy results in environmental testing, energy, and materials fields.
- Develop new systems by promoting synergies between different business segments (such as Analytical & Measuring Instruments and Medical Systems).

New Plant Built in Malaysia

Shimadzu Manufacturing Asia, Sdn. Bhd. (SMA), a manufacturing subsidiary for the analytical & measuring instruments, was established in Malaysia in June 2016. Trial assembly lines for liquid chromatographs and spectrophotometers were started up at Sanjo Works in Kyoto and then the lines were transferred to Malaysia as soon as the new plant was completed. The plant opened in June. After obtaining ISO 9001:2015 certification in August, the first shipment of UV-1800 spectrophotometers was made in late September. Initially we intend to offer products mainly in Southeast Asia and India, but also to the Middle East and Africa in the future.



New Plant in Malaysia

Established Innovation Centers in Europe and Asia

In March 2016, the European Innovation Center was opened in Germany as a location for collaborating with universities and companies in joint research and development projects. The center is intended as a hub for developing advanced products and applications in key fields for Shimadzu, such as clinical medicine, composite materials, foods, and imaging. We also opened a Southeast Asia Innovation Centre in Singapore, which will be involved in developing techniques that help strengthen our pharmaceutical and food safety capabilities.



European Innovation Center

Environment

Measuring Hazardous Elements in Public Drinking Water

This system is used for R&D or quality control applications in environmental fields, such as measuring hazardous elements contained in public drinking water.



ICPMS-2030 ICP Mass Spectrometer

Monitoring Water Upstream from Factory Effluents

This system is used to monitor factory effluent water before it is discharged or to continuously monitor the quality of public drinking water or environmental waters, for example.



TOC-4200 Online Total Organic Carbon Analyzer

Petroleum/Chemical Industries

Analyzing Polymer Chemical Reactions

This system is used for measurements to track rapid polymer chemical reactions, for analysis of polymer curing reactions, and for qualitative analysis of rubbers, for example.



IRTracer-100 Fourier Transform Infrared Spectrophotometer

Analyzing the Odor of Chemical Products

In addition to analyzing odor components in chemical products, this system is also used for a wide variety of other applications, such as qualitative and quantitative analysis of organic solvents in films.



Headspace Analysis System

Machinery and Transportation

Quality Control of Automotive Parts

This system is used for applications such as viewing inside automotive parts or for analyzing glass or carbon fiber-reinforced plastics or other materials.



inspeXio SMX-225CT Microfocus X-Ray Inspection System

Testing the Strength of Materials and Parts

Control parameters are tuned in real time based on test force and strain data measured during testing. This machine is used for a wide variety of applications from strength testing of materials and parts to simulation of press forming operations, for example.



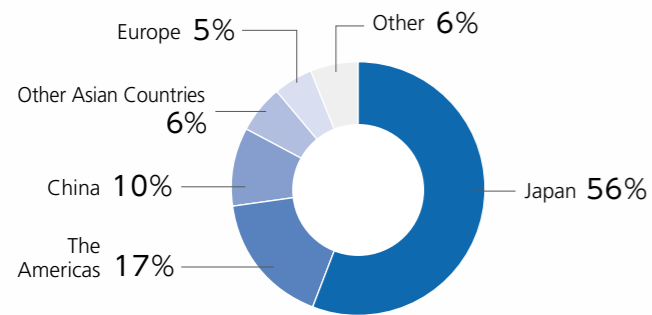
AG-Xplus Precision Universal Testing Machine

Medical Systems Business

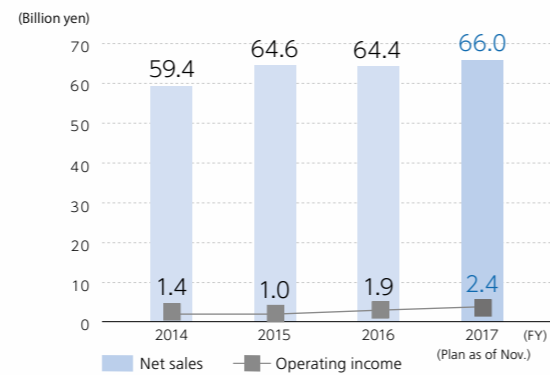
By offering easy-to-use medical systems that reduce the stress on patients based on state-of-the-art image processing technology, we contribute to early detection and early treatment of cancer and other diseases at medical facilities around the world.



Net Sales by Region



Net Sales/Operating Income



Main Products

Fluoroscopy Systems	Angiography Systems	Radiography Systems	Others
<ul style="list-style-type: none"> R/F tables Mobile C-arms 	<ul style="list-style-type: none"> Angiography systems 	<ul style="list-style-type: none"> General radiography systems Mobile systems 	<ul style="list-style-type: none"> Tumor-tracking systems for radiotherapy systems Near-infrared imaging systems Medical information systems

Business Environment

In the healthcare industry (excluding pharmaceuticals and biotechnology), the market for diagnostic imaging systems has shown strong growth and now accounts for about 3 trillion yen in sales^{*1}. The market for diagnostic X-ray systems, where Shimadzu offers strong products, is worth about 700.0 billion yen, with Shimadzu boasting the world's fourth largest market share, after the three large non-Japanese competitors. Strong market growth is also expected in the future, in markets such as the United States, Japan, and China.^{*2} Though there has been an increasing number of competitors entering the market, resulting in price wars, commoditization, and other challenges that are creating increasingly severe business conditions, we intend to establish a unique position in the market by further strengthening the functionality and broad product line that we have cultivated thus far.

Source: *1 Frost & Sullivan market reports
*2 IHS market reports

FY 2016 Results and Challenges

In Japan, sales of angiography systems and other diagnostic X-ray systems increased. In particular, with successful regulatory compliance, sales of fluoroscopy systems and general radiography systems to the medical clinic market increased. In North America and China, sales were strong for high-end fluoroscopy systems that can be used for multiple diagnoses. In Europe, sales of fluoroscopy systems and general radiography systems were strong in Eastern Europe and Russia. However, public sector demand stalled in Southeast Asia. Consequently, overall sales outside Japan decreased partially due to the strong yen. Looking ahead, we plan to develop competitive new products and services and expand businesses outside Japan, while also making improving profitability our greatest priority.

Key Measures in the Medium-Term Management Plan

1. Strengthen/Expand/Improve the Diagnostic X-Ray System Business
 - Expand the angiography system business, such as by offering unique applications.
 - Expand business in North American markets by strengthening business capabilities and releasing new products.
 - Start offering 24-hour customer support in Japan and then deploy it in China as well.
2. Deploy Business in New Fields
 - Strengthen Measures to Support Cancer Diagnosis and Treatment**
 - Roll out the Elmammo dedicated breast PET system in China.
 - Strengthen deployment of the LIGHTVISION near-infrared fluorescence imaging system for breast cancer applications, deploy the applications outside Japan, and integrate analytical and medical technologies.
 - Promote Integrating Analytical and Medical Technologies**
 - Develop new systems and offer unique high value-added diagnostic information by integrating X-ray image processing technology (Medical Systems segment) with mass spectrometry technology (Analytical & Measuring Instruments segment).

Exhibition at the Japan Fair, Tokyo International Conference on African Development

At the TICAD* Japan Fair held in Nairobi, Kenya, in August 2016, a MobileDaRt unit, as which we first delivered the same unit to the Nairobi Hospital, was exhibited. A presentation of the LIGHTVISION near-infrared fluorescence imaging system, for supporting tomography and diagnosing metastasis of breast cancer, was also displayed on a monitor.

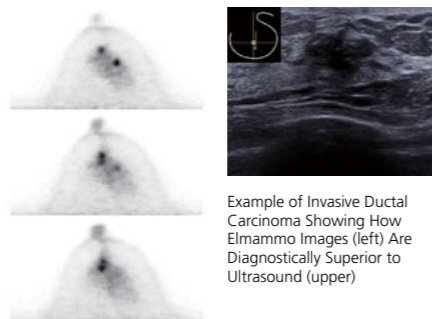
* TICAD is an acronym for Tokyo International Conference of African Development. Led by the Japanese government since 1993, TICAD is an international convention focused on development in Africa that is sponsored jointly with the United Nations, UN Development Programme (UNDP), Africa Union Commission (AUC), and World Bank.

Measures to Prevent Cancer

By simply lying face down on the bed and lowering a breast into the detector hole, patients can be examined in a relaxed state without any pain from breast compression.



Elmammo Dedicated Breast PET System



Example of Invasive Ductal Carcinoma Showing How Elmammo Images (left) Are Diagnostically Superior to Ultrasound (upper)

The Elmammo system can clearly visualize an invasive cancer directly under the nipple and intraductal progression spread laterocaudally from the invasive cancer. That means superior diagnostic results can be achieved even for patients with high-concentration mammary glands that are difficult to see with conventional methods. (Source: Academic Morning Seminar, 24th Annual Meeting of the Japanese Breast Cancer Society)

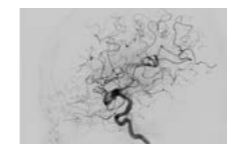
Stroke and Heart Disease

This system is not only new and easy to use, it is also equipped with tools and functionality for meeting the needs of medical facilities and patients who are demanding even less invasive catheterization procedures as advancements in procedures occur daily.



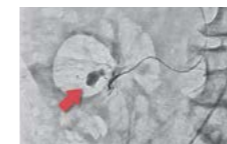
Trinias B8 MiX Package Angiography System

Improving the Visibility of Medical Devices and Reducing the Exposure Dose



SCORE PRO Advance

Imaging with Low-Exposure Dose Levels and is Minimally Affected by Movement



SCORE RSM

Perinatal and Pediatric Medicine

The advantage of mobility is used to perform radiography and display images on-site in neonatal ICU wards, so that the patient's condition can be determined more quickly.



MobileDaRt Evolution Mobile X-Ray System

Meeting the Needs of an Aging Society

By deploying state-of-the-art tomography based on digital tomographic image reconstruction and various other applications, we will offer high precision examinations and clinical added value.



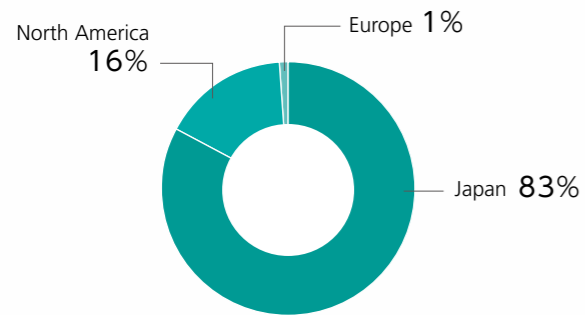
SONIALVISION G4 R/F System

Aircraft Equipment Business

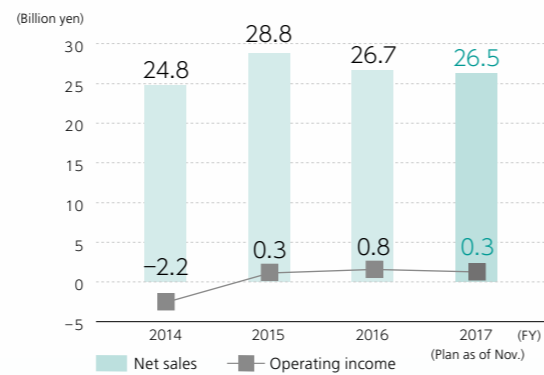
We contribute to ensuring passenger safety and comfort during flight by offering components and systems that integrate electronics and other advanced technologies with precision manufacturing technologies cultivated by Shimadzu.

Hiroshi Fujino
General Manager,
Aircraft Equipment Division

Net Sales by Region



Net Sales/Operating Income

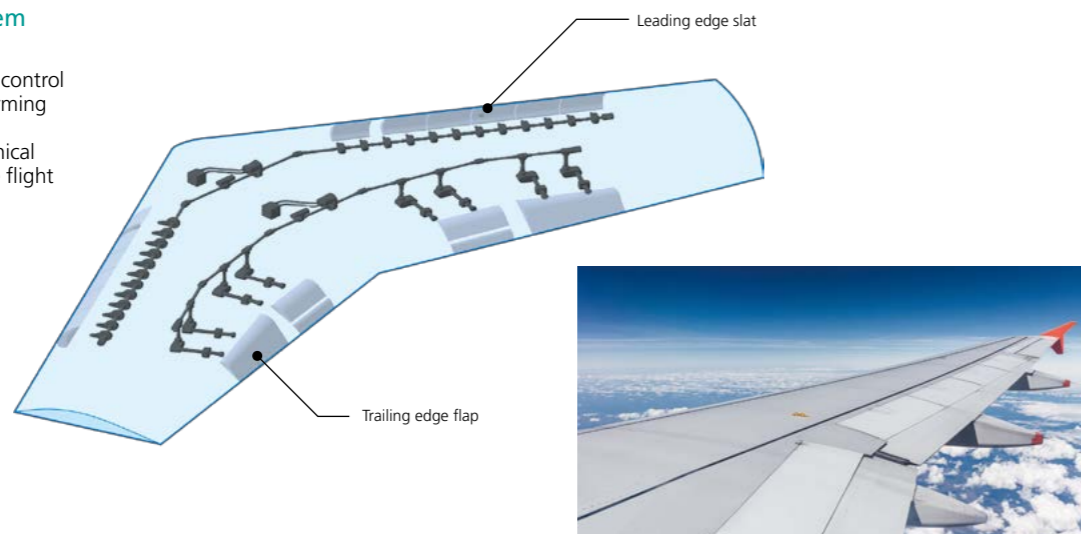


Main Products

- | Aircraft Equipment | Ground Support Equipment | Measuring Devices for Magnetic Applications |
|--|--|---|
| <ul style="list-style-type: none"> Flight control systems Air management systems Cockpit display systems Engine auxiliary components Hydraulic and electric actuators | <ul style="list-style-type: none"> Aircraft equipment functional testers Aircraft medical training equipment | <ul style="list-style-type: none"> Magnetism-based measuring equipment |

Flight Control System

Shimadzu develops flap control systems for safely performing takeoffs and landings. The high-quality mechanical technology helps ensure flight safety.



Business Environment

Global demand for commercial passenger aircraft continues to expand. Even within Japan, as the ratio of private sector demand increases and government policies shift toward treating the aircraft industry as a key industry, relevant ministries have issued a vision for the aircraft industry that indicates they will prioritize allocating funds for developing technologically competitive products, not only for airframe and engine products, but also for other aircraft components. Given these conditions, our commercial aircraft equipment business has increased its share. In the future, we intend to achieve additional growth, mainly based on gear technologies that are highly regarded by customers throughout the world.

FY 2016 Results and Challenges

In Japan, sales of aircraft components to the Japanese Ministry of Defense decreased slightly. Outside Japan, sales of service parts to commercial airlines were strong, but net sales decreased due to the strong yen and lower demand. Looking ahead, we intend to improve profitability by strengthening our manufacturing base, investing in competitive products through selection and consolidation, deploying a new business based on magnetic products, and other measures.

Key Measures in the Medium-Term Management Plan

- Strengthen and expand the scale of the commercial aircraft equipment manufacturing base in Japan. Also, in North America, strengthen the manufacturing capabilities and expand the aftermarket business.
- Review and rebuild the defense business.

Commitment Towards Safe Flight of Helicopters

During low visibility^{*1} flight conditions, such as at night or during bad weather, HMD^{*2} systems are expected to be used as equipment for enhancing pilot visual information. Therefore, we are conducting joint research with JAXA^{*3} on using an HMD system to provide useful visual information to helicopter pilots engaged in search and rescue. In specific terms, for a helicopter to reach the destination safely in such low visibility flight conditions so that rescuers can carry out search-and-rescue operations, we are developing technologies, which enable night flights, to display infrared images of the surrounding landscape, a 3D synthetic topography map generated from a terrain database, and a flight path tunnel guidance, on the helmet's visor in real time overlapping the pilot's field of view of its line of sight.

*1 Visibility is the greatest distance at which an object can be clearly seen with the naked eye.
*2 HMD is an acronym for helmet mounted display, which uses the helmet visor to display text and image information in the pilot's distant field of view.
*3 JAXA is the acronym for Japan Aerospace Exploration Agency.



Image Displayed by the HMD Unit

Cockpit Display Systems

Shimadzu offers head-up display (HUD) systems, projection-type head-down display (HDD) systems, and other products that use advanced electronics and optics technologies to display various types of flight information superimposed on the view of the outside world. These systems help reduce pilot workload and increase flight safety.



General-Purpose Magnetic Sensors

These fluxgate magnetic-field sensors measure slight magnetic fields with high sensitivity. Available as either separate magnetic detector and controller units or as an integrated unit, these sensors are used to measure geomagnetism, measure the magnetic field generated from magnetic substances (such as iron and nickel), and so on. In the future, we anticipate they will be used as components in security systems, communications, and drones.

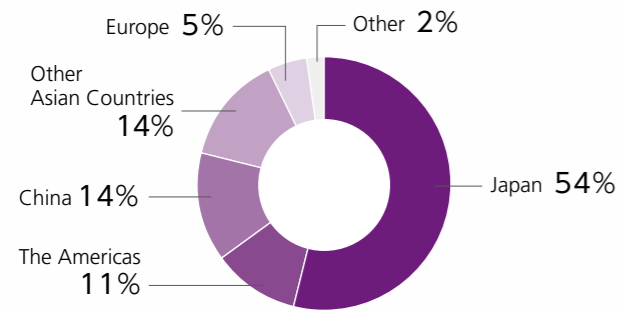


Industrial Machinery Business

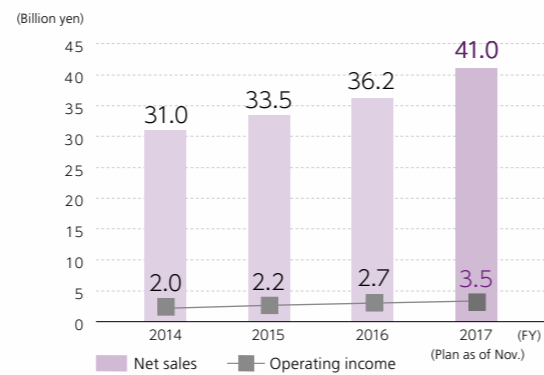
We provide high-performance key components and contribute to the development of industries, such as industrial machinery used for semiconductor and flat panel display manufacturing and quality-control processes and high-quality equipment that uses sophisticated hydraulic technology.



Net Sales by Region



Net Sales/Operating Income



Main Products

- Turbomolecular Pumps**
 - Turbomolecular pumps
- Hydraulic Equipment**
 - Hydraulic gear pumps
 - Multi-control valves
 - Power packages
- Others**
 - High-speed sputtering systems
 - Vacuum heat treatment furnaces
 - Glass winders
 - Solvent delivery pumps

TMP-X3405 Turbomolecular Pump

Turbomolecular pumps are vacuum pumps used to create the vacuum environment essential for manufacturing semiconductors, flat panel display panels, and other products. We also offer turbomolecular pumps with the world's highest evacuation capacity.



UHSP-T2040H High-Speed Sputtering System

This vacuum film deposition system applies multiple layers of high quality protective films onto three-dimensional injection molded plastic products at high speed. We expect this system to be widely used in automotive parts markets. For example, it is currently used to form electromagnetic wave transparent films required for self-driving vehicles.



Hydraulic Gear Pump

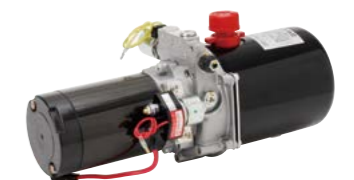
Hydraulic gear pumps are widely used as a hydraulic power source for various types of equipment including industrial vehicles such as forklifts, construction machinery, special-design vehicles, and agricultural machinery.



Forklift

Power Package

This hydraulic unit is configured with an electric motor or valve in the center of small gear pump. It is mainly used in transport vehicles and conveying equipment.



Business Environment

With investment in semiconductors and flat panel displays predicted to continue, demand for turbomolecular pumps (TMPs) used in their manufacturing processes is projected to continue expanding as well. In addition to magnetically levitated turbomolecular pumps, where Shimadzu has a large market share, we intend to also develop new markets by expanding/improving our product line of turbomolecular pumps with composite bearings. We also plan to create new business opportunities by releasing film deposition systems, inspection machine, vacuum equipment, and other products with features intended for automotive part and food markets. Hydraulic equipment is used in a wide range of industrial fields. Therefore, medium and long-term demand is projected to continue growing along with industrial growth. We will continue to supply products that fit the needs of markets, while also accelerating development outside Japan.

In the future, we will expand/improve our product line of turbomolecular pumps, expand our aftermarket business globally, and expand the hydraulic equipment business outside Japan in an effort to "become a specialist able to provide solutions for the industrial machinery market" and "become a global brand supplier of hydraulic equipment."

Key Measures in the Medium-Term Management Plan

- Expand/improve the product line of magnetically levitated turbomolecular pumps and expand the scope of target markets by entering the market for turbomolecular pumps with composite bearings.
- Expand the turbomolecular pump aftermarket business.
- Reform profitability by expanding hydraulic equipment business outside Japan and strengthening the manufacturing base.

FY 2016 Results and Challenges

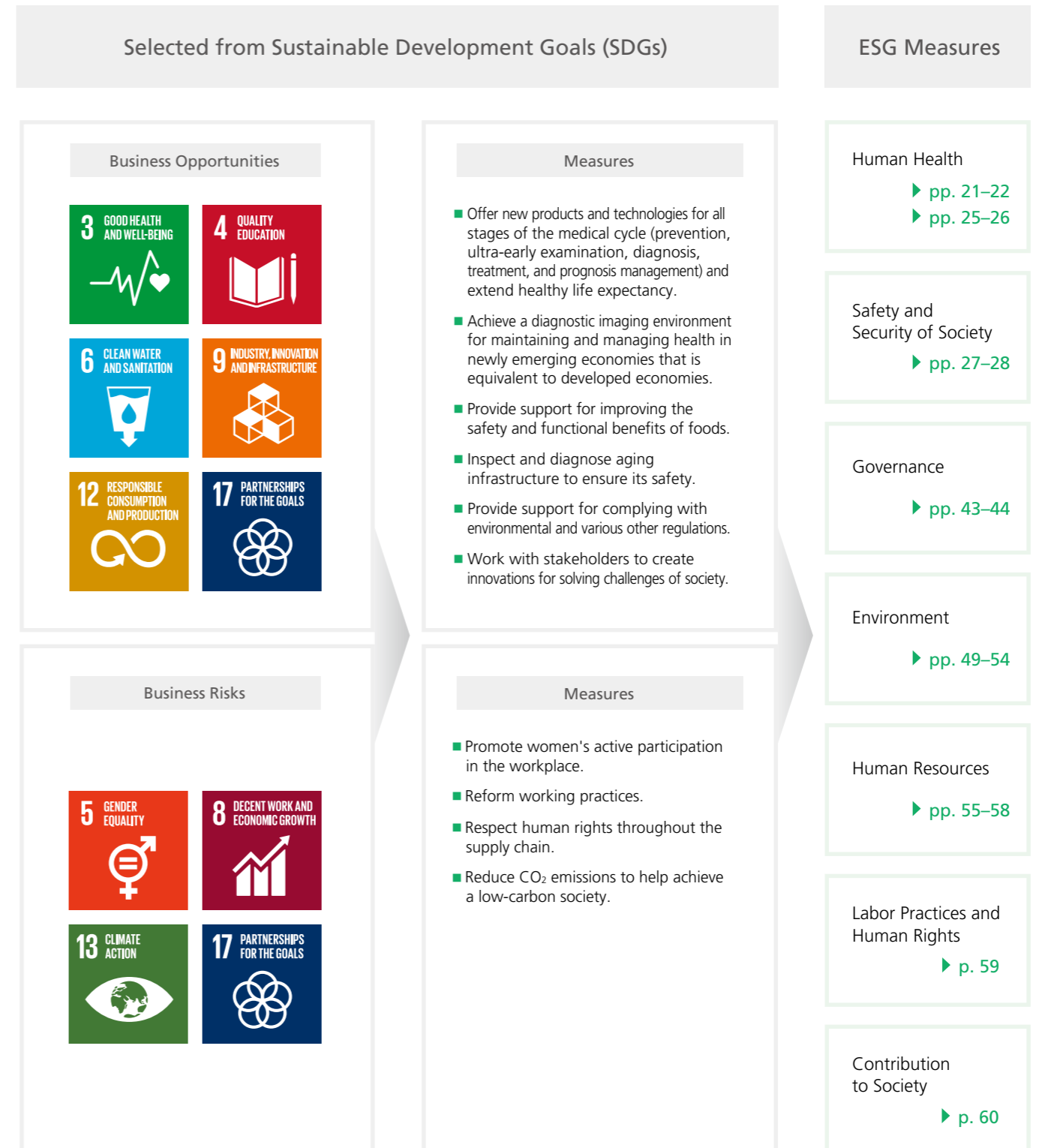
In Japan, North America, Korea, and China, turbomolecular pump sales were strong, mainly for semiconductor and flat panel display manufacturing equipment. In China, however, sales of glass winders decreased due to fewer large projects than in the previous year. Though hydraulic equipment markets seemed to slow in the first half, they picked up in the second half, but overall sales increased only slightly due to the strong yen and other factors.

Entering the Food Market with Vacuum Sintering Systems

Based on the principle that moisture can be evaporated at low temperatures in a vacuum environment, food can be manufactured with new textures without sacrificing the fragrance and nutritional value of food ingredients. Furthermore, using vacuum technology can help shorten processing time, improve productivity, and save energy, compared to previous technologies. Currently, we are collaborating with a Japanese food manufacturer to jointly develop and offer new food processing equipment. In the future, we plan to build a new business in the food market by offering new added value from combining vacuum sintering systems with analytical and measuring technologies.

Measures to Ensure Sustainability

Companies must act responsibly to earn the trust of the various stakeholders associated with the company and achieve sustainable growth while coexisting with society and the environment. In addition to acting responsibly as a member of society, we are also actively involved in creating shared value (CSV) with society and promoting activities for corporate social responsibility (CSR) through our normal business activities, which are heavily rooted in contribution to society.



Corporate Governance

We Will Increase Corporate Value by Ensuring Management Transparency and Fairness

Basic Policy

We will establish and enhance systems for corporate governance as a core basis for our business management practices used to earn the trust of our stakeholders, achieve sustainable growth for the Shimadzu Group, increase the corporate value in the medium and long term, ensure management transparency and fairness, and promote management dynamism by increasing the speed and boldness of decision-making and by implementing measures.

Corporate Governance System

A corporate governance system was established and is improved to achieve a balance between accurate and rapid decision-making and execution of administrative processes. Specifically, the board of directors is designated as the institution for deciding and monitoring the execution of administrative processes. The president and other administrative corporate executive officers and the executive committee are designated as the institutions for

executing administrative processes based on decisions made by the board of directors. The audit & supervisory board and its members are designated as the institutions for auditing. To clarify the managerial responsibility of directors, directors are appointed for a term of one year. In addition, the board of directors appoints the chairman and other administrative corporate executive officers.

Organizational Status

Type of Organization	Company with audit & supervisory board members
Number of Directors	8
Chair of the Board of Directors	Chairman
Number of Outside Directors	3 (of whom two are reported to the Tokyo Stock Exchange as independent directors)
Number of Outside Audit & Supervisory Board Members	2

Compliance with Corporate Governance Codes

To achieve sustainable growth for the Shimadzu Group and increase the corporate value in the medium and long term, we established a Corporate Governance Policy in December 2015, which was revised in November 2016 and June 2017. The Corporate Governance Policy serves as a declaration of our stance regarding our specific corporate governance practices and is intended as a means of instilling the spirit of the corporate governance codes within our corporate management practices. The Corporate Governance Policy will be implemented and improved not only to ensure compliance with corporate governance codes, but also as fundamental measures that serve as the foundation for our management practices.

Basic Policies for Corporate Governance

1	Appropriate Cooperation with Stakeholders
2	Securing the Rights and Equal Treatment of Shareholders
3	Ensuring Appropriate Information Disclosure and Transparency
4	Dialogue with Shareholders
5	Responsibilities of the Board of Directors

For more details, refer to the website.
<https://www.shimadzu.com/ir/governance.html>

Reasons for Appointing Independent Directors

The board of directors specifies regulations for outside directors and creates and releases criteria for determining the independence of candidate independent outside directors. Furthermore, effort is made to select candidates expected to contribute frank, lively, and constructive considerations during board of directors meetings.

Appointed independent outside directors contribute to strengthening the system for executing appropriate administrative processes by offering valuable suggestions regarding management in general and compliance, based on their extensive experience and outstanding capabilities/discernment.

		Reasons for Appointment
Outside Directors	Taketsugu Fujiwara	Appointed due to extensive management experience and broad knowledge acquired through many years of managing a global company.
	Hiroko Wada	Appointed due to diverse management experience, such as from being a corporate director of a multinational company and a chief executive officer of a Japanese subsidiary of a foreign company, and broad knowledge about global marketing.
Outside Audit & Supervisory Board Members	Takashi Iida	Appointed due to extensive specialized knowledge and experience from practicing law for many years, from managing a law office, and from serving as an outside director or outside corporate auditor for various companies.
	Masahiro Nishio	Appointed due to extensive specialized knowledge and experience from being a certified public accountant and due to his experience outside Shimadzu, which is expected to be useful as a corporate auditor.

Evaluating the Effectiveness of the Board of Directors

Shimadzu analyzes and evaluates the effectiveness of the board of directors for the purpose of making continuous organizational or operational improvements and to ensure it functions properly. The second such evaluation involved conducting a

survey in FY 2017 about the board of directors' effectiveness. An analysis and evaluation of the survey results were then deliberated at a board of directors meeting. An overview of that process was published in the Corporate Governance Report.

Results from Evaluating the Effectiveness of the Board of Directors

1	Composition of the Board of Directors	The current size and composition is considered appropriate. The addition of a female outside director in FY 2016 is expected to result in deeper discussions due to greater diversity.
2	Operation of Board of Directors Meetings	The frequency and length of meetings is considered appropriate and an atmosphere and environment where all members can freely express their views is maintained. Efforts are made to ensure deliberations can be performed more effectively, by inside directors providing supplemental background information when a proposal is presented. We also continue to strive toward improving the documentation provided.
3	Roles and Responsibility of the Board of Directors	When preparing the new medium-term management plan, the board achieved excellent results and significant improvements, compared to the previous year, by engaging in lively and constructive discussions about the key elements, vision, policies, strategies, and direction for goals Shimadzu should pursue in the plan. This year, we will provide an opportunity to adequately discuss how to follow-up those results.
4	Support for and Cooperation with Directors and Audit & Supervisory Board Members	Briefing members before board of directors meetings and exchanging and sharing information with outside directors are conducted appropriately, which has improved since last year.
5	Self-Assessment by Directors	All directors adequately understand the basic philosophy of the company, endeavor to achieve that philosophy, and spend adequate time and effort fulfilling their roles and responsibilities as directors.
6	Status of Measures to Address Issues Identified in the Effectiveness Evaluation Last Year	An environment has been provided where outside directors can freely access and view written materials. Further improvements are being made to ensure adequate time for reviewing materials in advance.

Corporate Ethics and Compliance

Becoming a Business That Is Trusted Throughout the World and Where Employees Can Work with a Sense of Pride

Basic Policy

Shimadzu has specified the following five principles of conduct in the corporate code of ethics, which is a guideline for employee behavior, and we daily engage in activities aimed at becoming a global business that is trusted throughout the world and where employees can work with a sense of pride.

1. Customer-oriented approach
2. Fairness and transparency
3. Dialogues with stakeholders
4. Contribution to society and global environment conservation
5. Respect for the creativity and individuality of employees

Measures to Instill Awareness of Corporate Ethics

As measures for instilling and fostering employee awareness of corporate ethics, corporate ethics and compliance training based on e-learning or study booklets is conducted annually at the head office and Group companies in Japan. In addition, a corporate ethics awareness survey is conducted to measure the level of employee awareness and adoption level of corporate ethics, which we use for future activities.

For more details, refer to the website.
<https://www.shimadzu.com/csr/social/compliance.html>

Suspension by Japanese Ministry of Defense

Due to improper practices by the Aircraft Equipment Division with respect to a repair contract with the Japanese Ministry of Defense, the Ministry suspended transactions with Shimadzu for 3.5 months, starting from June 9, 2017. However, the suspension was removed on September 23, 2017. We deeply apologize to all those involved for the significant inconvenience this caused.

Provision of a Corporate Ethics Consultation and Notification Contact Points

To prevent corporate ethics problems, or identify and address them as early as possible, employees have been informed that contact points have been established within and outside the company for consultation and notification. In response to such consultations or notifications, personnel at the contact points can cooperate with relevant departments to investigate, implement corrective actions, and/or implement measures to prevent recurrence, as necessary. Rules are also established to protect personnel that consult or notify the contact points, such as rules that prohibit unfavorable treatment.

Internal Audits

Corporate business activities in specialized fields are monitored by internal audits conducted by respective departments, such as sales, research and development, or manufacturing, and by administrative departments. In addition, an Internal Audit Department (with six internal auditors) is established, which is directly under the president, to perform internal audits from a perspective that is independent from the normal hierarchy for executing administrative processes, including for Group companies, and to evaluate and ensure the effectiveness of internal controls.

Improved Transparency of Relationships with Medical and Other Institutions

In order to be a company that can obtain the trust of society, we have increased the transparency of relationships with medical institutions and others whose cooperation is essential for developing, manufacturing, importing, and selling medical devices by publishing a Guideline for Transparency of Relationships with Medical and Other Institutions and disclosing all funds provided to medical institutions or other relevant parties.

We remain committed to becoming a business even more trusted by global society, by strengthening internal controls, deploying systems for visualizing the status of workplaces, ensuring more thorough corporate compliance through communication to reform organizational culture and awareness, preventing recurrence, and continuing to monitor practices.

Risk Management

We Ensure Business Continuity and Progress Through Appropriate Risk Management

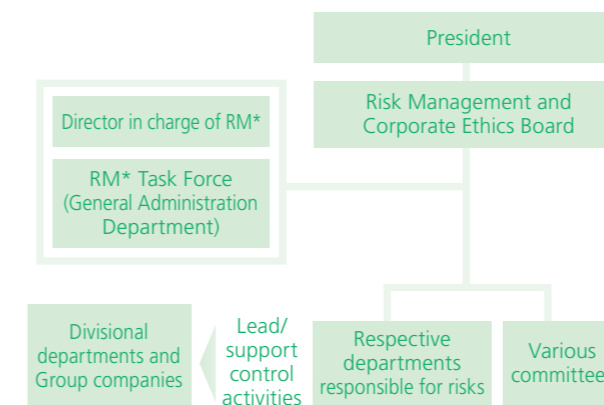
Basic Policy

Given the rapid changes in the business environment, businesses must anticipate the various risks and implement corresponding countermeasures. To ensure the continuity and ongoing progress of its businesses, Shimadzu has established a risk management system that encompasses corporate ethics and compliance by fostering a corporate culture that respects corporate ethics and compliance and by managing risks appropriately.

Risk Management System

The president is the chief officer responsible for risk management. Below the president, a Risk Management and Corporate Ethics Board meets twice a year as a deliberative body to discuss and approve company-level risk management activities. Those activities are coordinated by the director in charge of risk management and deployed to other departments and Group companies primarily by the departments responsible for the respective risks.

■ Risk Management System (Including Corporate Ethics and Compliance)



*RM: Risk management

For more details, refer to the website.
https://www.shimadzu.com/csr/social/risk_management.html

Countermeasures and Risk Management for Priority Risks

Risks that are especially important to the company are identified, discussed at the management level, and designated as priority risks that require particularly prioritized measures. Measures to reduce the risks are implemented by specifying a director or department responsible for respective risks and the progress of the measures is confirmed by the Risk Management and Corporate Ethics Board.

■ List of Priority Risks with Countermeasures Implemented Between October 2015 and September 2017

Priority Risk	Description of Countermeasures
Major earthquake or tsunami	<ul style="list-style-type: none"> ■ Earthquake countermeasures implemented at each location within Japan ■ Tsunami evacuation training
Product accidents	<ul style="list-style-type: none"> ■ Globally increase level of understanding locations where Shimadzu products are delivered or installed.
Inappropriate accounting and financial reporting	<ul style="list-style-type: none"> ■ Prevent inappropriate accounting practices by improving rules for business processes and educating personnel about the rules.
Compliance with business laws and regulations	<ul style="list-style-type: none"> ■ Obtain permits and licenses required for business outside Japan, and inspect and improve the status of compliance.
Victimization by social engineering fraud	<ul style="list-style-type: none"> ■ Conduct meetings on information security at a global level. ■ Provide education and training on measures for suspicious emails.
Obtaining and training human resources, ensuring succession of skills, and reforming work practices	<ul style="list-style-type: none"> ■ Hire more women and non-Japanese. ■ Station young personnel at locations outside Japan.

Business Continuity Plan (BCP) for Major Earthquakes

In the event of a major earthquake, ensuring the safety of personnel, minimizing damage, and recovering quickly will not only help ensure the continuity of Shimadzu businesses, but will also serve to fulfill our responsibility for supplying products to our customers. Consequently, Shimadzu has established a business continuity plan (BCP). In an emergency, a head office task force, headed by the president, and divisional task forces, headed by respective division general managers, shall be established for leading business continuity and recovery measures.

Profiles of Directors

1 Akira Nakamoto

Representative Director, Chairman of the Board
Chair of the Board of Directors

Apr. 1969 Joined Shimadzu Corporation
June 2000 General Manager, Analytical & Measuring Instruments Division
June 2000 Corporate Officer
June 2001 Director
June 2005 Managing Director
June 2007 Senior Managing Director
June 2009 Representative Director (current)
June 2009 President and Director
June 2013 President
June 2013 CEO
June 2015 Chairman of the Board (current)
June 2015 Chair of the Board of Directors (current)

2 Teruhisa Ueda

Representative Director, President
CEO

Apr. 1982 Joined Shimadzu Corporation
Oct. 2004 General Manager, Quality Assurance Department, Analytical & Measuring Instruments Division
June 2007 Corporate Officer
June 2007 Deputy General Manager, Analytical & Measuring Instruments Division
June 2011 Director
June 2011 General Manager, Analytical & Measuring Instruments Division
June 2013 Managing Executive Officer
June 2014 Senior Managing Executive Officer
June 2015 Representative Director (current)
June 2015 President (current)
June 2015 CEO (current)

3 Hiroshi Fujino

Director, Senior Managing Executive Officer
In charge of risk management, General Manager,
Aircraft Equipment Division

Apr. 1979 Joined Shimadzu Corporation
June 2005 General Manager, International Marketing Division
June 2007 Corporate Officer
June 2009 General Manager, Corporate Strategy Planning Department
June 2012 Director (current)
June 2012 In charge of corporate strategy planning and investor relations
June 2013 Managing Executive Officer
June 2013 In charge of public relations
June 2015 Senior Managing Executive Officer (current)
June 2015 In charge of global environmental management
June 2017 In charge of risk management (current)
June 2017 General Manager, Aircraft Equipment Division (current)

4 Yasuo Miura

Director, Senior Managing Executive Officer
In charge of finance and marketing,
General Manager, Tokyo Office

Apr. 1980 Joined Shimadzu Corporation
Apr. 2005 General Manager, Corporate Strategy Planning Department
June 2007 Corporate Officer
June 2009 President, Shimadzu Europa GmbH (Germany)
June 2013 Director (current)
June 2013 Managing Executive Officer
June 2013 In charge of finance and marketing (current)
June 2015 General Manager, Tokyo Office (current)
June 2017 Senior Managing Executive Officer (current)

5 Koji Furusawa

Director, Senior Managing Executive Officer
In charge of corporate strategy planning,
investor relations, and public relations

Apr. 1979 Joined Shimadzu Corporation
May 2007 Managing Director, Shimadzu (Hong Kong) Ltd.
June 2009 Corporate Officer
June 2013 Managing Executive Officer
June 2017 Director (current)
June 2017 Senior Managing Executive Officer (current)
June 2017 In charge of corporate strategy planning, investor relations, and public relations (current)

6 Minoru Sawaguchi

Outside Director
Lawyer
Visiting Professor of the University of
Tokyo Graduate Schools for Law and Politics

Apr. 1993 Registered as attorney-at-law
Apr. 1993 Joined Mori Sogo Law Office (currently Mori Hamada & Matsumoto) (current)
June 2013 Director, Shimadzu Corporation (current)

7 Taketsugu Fujiwara

Outside Director
Standing Counsellor of Asahi Kasei Corp.
Outside Director of KOKUYO Co., Ltd.
Outside Director of IHI Corporation

Apr. 1969 Joined Asahi Chemical Industry Co., LTD. (currently Asahi Kasei Corp.)
June 2000 Director, Asahi Kasei Corp.
Apr. 2009 Vice-Presidential Executive Officer, Asahi Kasei Corp.
June 2009 Director, Asahi Kasei Corp.
Apr. 2010 President & Representative Director, Presidential Executive Officer, Asahi Kasei Corp.
Apr. 2014 Vice-Chairman, Asahi Kasei Corp.
June 2014 Director, Shimadzu Corporation (current)
June 2015 Standing Counsellor, Asahi Kasei Corp. (current)

8 Hiroko Wada

Outside Director
Representative of Office Wada

Apr. 1977 Joined Procter & Gamble Sunhome Co., Ltd. (currently Procter & Gamble Japan)
Jan. 1998 Vice President, Procter & Gamble U.S., responsible for corporate new venture Asia
Mar. 2001 President, Dyson Limited
Apr. 2004 President and CEO, Toys "R" Us, Japan
Nov. 2004 Established Office Wada (current)
June 2016 Director, Shimadzu Corporation (current)



Profiles of Audit & Supervisory Board Members

Hiroyuki Fujii

Senior Audit & Supervisory Board Member (full-time)

Apr. 1981 Joined Shimadzu Corporation
Apr. 2005 General Manager, Human Resources Department
June 2007 Corporate Officer
June 2009 Director
June 2013 Senior Corporate Auditor (currently Senior Audit & Supervisory Board Member)



Koji Uematsu

Audit & Supervisory Board Member (full-time)

Apr. 1975 Joined the Mitsubishi Bank, Ltd. (currently the Bank of Tokyo-Mitsubishi UFJ, Ltd.)
Sept. 2003 General Manager, Business Strategy and Development, the Bank of Tokyo-Mitsubishi, Ltd. (currently the Bank of Tokyo-Mitsubishi UFJ, Ltd.)
June 2005 Joined Shimadzu Corporation
June 2005 Corporate Officer
Apr. 2006 General Manager, Kansai Office
June 2007 Managing Executive Officer
June 2011 Corporate Auditor (currently Audit & Supervisory Board Member)



Takashi Iida

Audit & Supervisory Board Member (part-time)

Apr. 1974 Registered as attorney-at-law
Apr. 1974 Joined Mori Sogo Law Office (currently Mori Hamada & Matsumoto)
Apr. 2006 President, Daini Tokyo Bar Association
Apr. 2006 Vice President, Japan Federation of Bar Associations
Jan. 2012 Established Kowa Law Office (current)
June 2012 Corporate Auditor (currently Audit & Supervisory Board Member), Shimadzu Corporation



Masahiro Nishio

Audit & Supervisory Board Member (part-time)

Nov. 1974 Joined Daiwa Accounting Office (current KPMG AZSA LLC)
Mar. 1978 Became a chartered accountant
Jan. 2015 Established Nishio Certified Public Accountant Firm (current)
June 2015 Corporate Auditor (currently Audit & Supervisory Board Member), Shimadzu Corporation



Environmental Measures

Shimadzu Environmental Management as an "Eco Solution Provider"

Basic Policy

Shimadzu intends to expand business activities and increase corporate value through offering a solution for the environmental issues as an "eco solution provider." That will comprise three main types of activities. The first type involves contributing to global environmental conservation through technological development, such as for the products and services we offer. We actively offer "environment-conscious products" that reduce environmental impact over the entire product lifecycle and "environmentally beneficial products" that improve the environment or facilitate environmental activities based on functionality and applications at customer locations. (For more

details, see the special feature article on pp. 27 to 28.) The second type involves reducing the environmental impact of Shimadzu business activities. We have established company-wide environmental management system, such as appropriately controlling waste and chemical substances and reducing CO₂ emissions. The third type involves supporting non-Shimadzu environmental activities, including in communities near Shimadzu operations. We conduct a wide range of activities, such as giving on-site environmental presentations at educational institutions, offering factory tours, and participating in conservation activities for regional ecosystems.

Global Environmental Conservation Through Technological Development

Environmental analysis (water, air, etc.)

Support for mobility development

Support for alternative energy development

Support for new materials development

"Environment-conscious products" designed to reduce environmental impacts throughout their lifecycle

"Environmentally beneficial products" contributing to environmental improvement with functions and usage

Three Types of Environmental Activities

Reducing the Environmental Impact of Business Activities

Global Warming Reduction Measures

Chemical Substances Management

Resource Recycling

Water Management

Support for Environmental Activities Outside of Shimadzu

Teaching Material Development and On-Site Lessons

Conservation of Regional Ecosystems

Support for the United Nations University Project

Community Cleanup Activities

Key Measures of Environmental Management

Key Measures	KPI
<p>■ Strengthen Measures to Reduce Environmental Impact on a Global Basis.</p> <p>(1) Increase Contribution to Reducing CO₂ Emissions with Environment-Conscious Products</p> <ul style="list-style-type: none"> Establish an Eco-Products Plus certification system (see p. 53 for more details) and increase awareness within and outside the company. Propose measures for strengthening selling capabilities. <p>(2) Reduce Shimadzu Group CO₂ Emissions and Specify Long-Term Global Target Value</p> <ul style="list-style-type: none"> Improve the visibility of various environmental information within and outside Japan. Specify measures for reducing environmental impact and execute corresponding plan-do-check-action (PDCA) cycles. Specify long-term target values and prepare a roadmap for achieving those targets. 	<p>A ≥ B (FY 2019)</p> <p>A: Contribution volume of CO₂ emissions reduction with Eco-Products Plus</p> <p>B: CO₂ emissions of Shimadzu Group</p> <p>Eco-Products Plus sales target: 50.0 billion yen in FY 2019</p> <p>Completion of specifying long-term target values and preparing a roadmap for achieving those targets (FY 2019)</p>

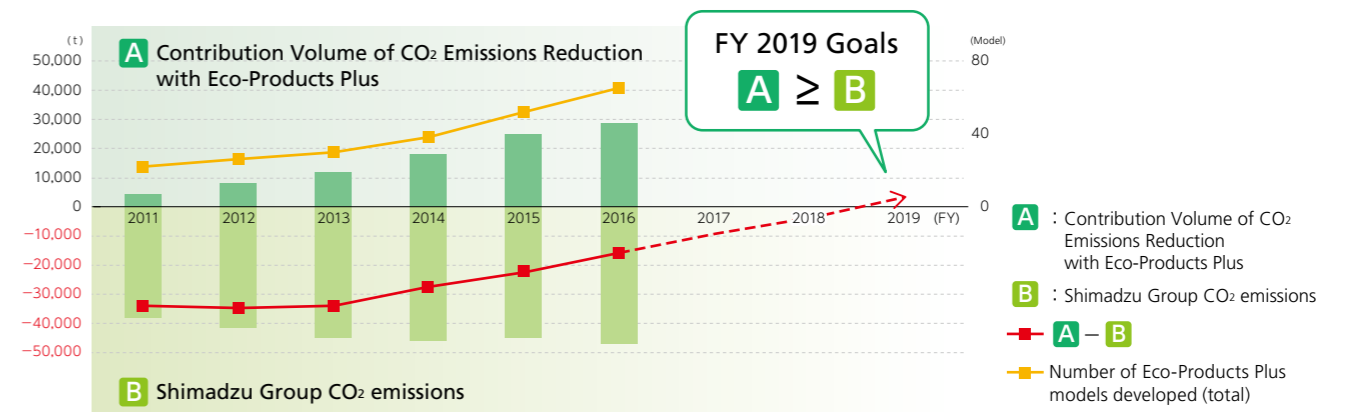
Measures by Shimadzu Corporation

Reducing Environmental Impact Through Business Activities and by Developing Eco-Products Plus Products

As a key measure for environmental management, Shimadzu will strengthen measures to reduce global environmental impact. Thus far, the "Save the Energy Project" that began in 2010 has resulted in releasing 67 Eco-Products Plus models into the world that save energy and resources. As a result, CO₂ emissions have been reduced by 29,128 tons in total up to FY 2016 by customers using the products. However, CO₂ emissions from Shimadzu Group business activities is currently increasing, due to increasing sales volume and an expanding number of business locations during the last several years. Consequently, we are working to improve the visibility of environmental information at respective

locations within and outside Japan, and will propose and implement CO₂ emissions reduction measures based on respective business conditions. The goal for FY 2019 is to implement measures that result in CO₂ emission reductions from products exceeding the CO₂ emissions from Shimadzu Group business activities. To achieve that goal, we will actively develop Eco-Products Plus products so that it results in 50.0 billion yen in sales, which is roughly double FY 2016 sales. At the same time, we will also specify medium and long-term environmental goals consistent with the Paris Agreement, sustainable development goals (SDGs), and other trends of global society, and prepare a roadmap for achieving those goals.

■ Trends and Goals for Shimadzu Group CO₂ Emissions and Contribution Volume of CO₂ Emissions Reduction with Eco-Products Plus

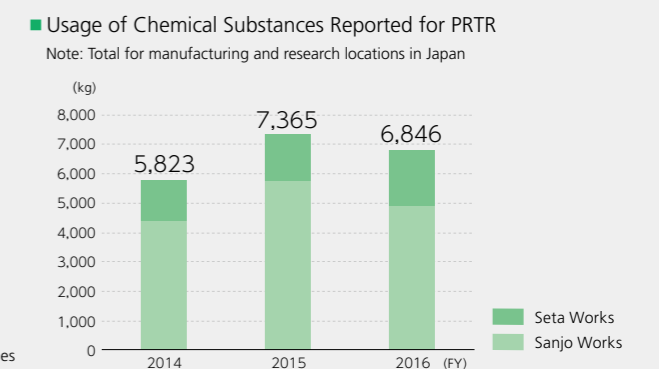
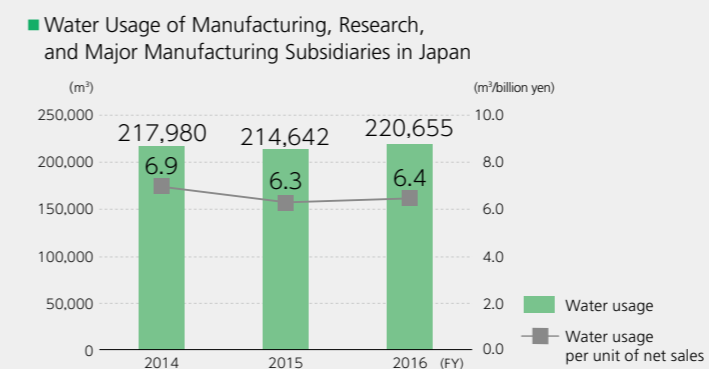
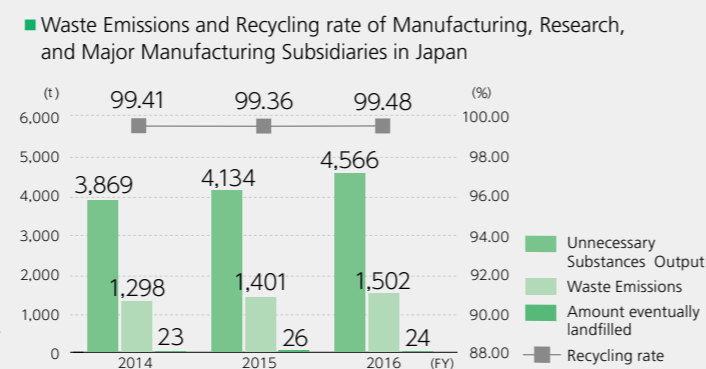
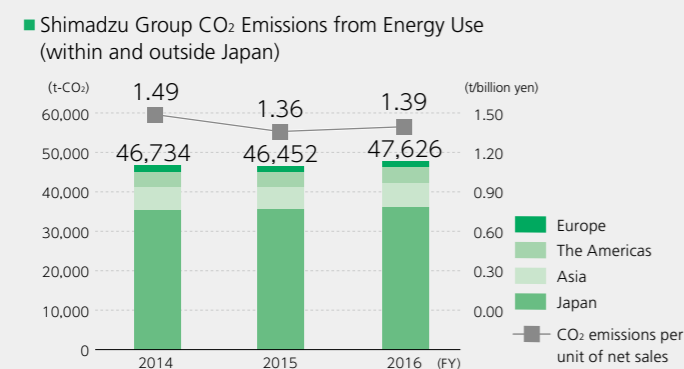


For more details about policies and capabilities for achieving key measures, refer to the website.
<https://www.shimadzu.com/csr/index.html>

Key Performance Indicators for FY 2016 Environmental Activities



Trends in Key Environmental Performance Indicators



Environmental Measures

Three Main Types of Environmental Activities Are Deployed Within and Outside Japan

Development of Eco-Products Plus Products That Reduce Environmental Impact from Product Usage

When developing environment-conscious products, the entire product life cycle must be considered, from procuring materials and parts to disposal. Shimadzu has specified design guidelines for reducing environmental impact. These guidelines define "Eco-Products Plus" products as product families that satisfy the certification criteria indicated in the table on the right, such as at least 25 % lower energy consumption than the previous model.

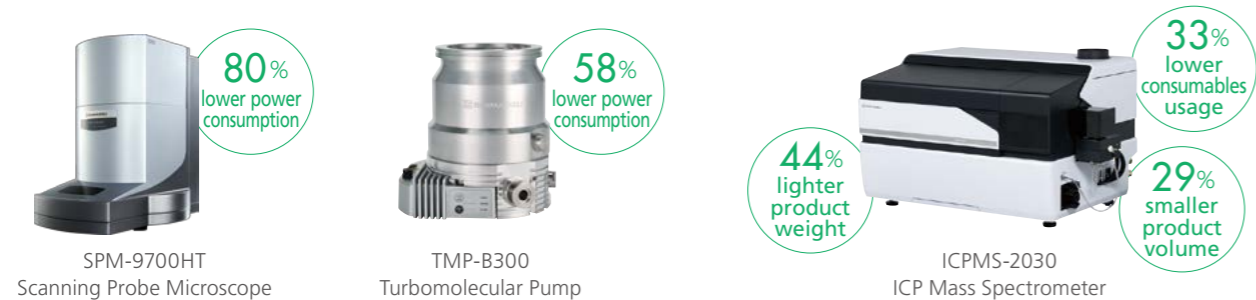
In particular, reducing the amount of energy and consumables consumed during product use also helps reduce the customer's CO₂ emissions and running costs. In FY 2016, product development was completed for 20 models and 54 projects.

Criteria for Eco-Products Plus Certification

Specifications	Criteria (vs. Previous Model)
Energy Savings	At least 25 % lower energy consumption
Smaller Size	At least 25 % reduction in product weight, volume, or footprint
Resource Savings	At least 25 % lower usage of consumables (such as gas and chemicals) for product operation
Free of Specified Hazardous Substances	Does not contain any mercury, cadmium, lead, hexavalent chromium, polybrominated biphenyls (PBB), or polybrominated diphenyl ethers (PBDE).

Newly Released Eco-Products Plus Products

Energy-Saving Products



The Engineers Who Developed the TMP-B300 ▶▶

Turbomolecular pumps (TMP) are used to generate the vacuum state required for manufacturing semiconductors or analyzing trace components. The TMP-B300 turbomolecular pump we developed was designed for a market where smaller and less expensive models are needed and where we had not entered so far, but we could not sacrifice product service life, evacuation performance, or vibration/noise levels compared to existing competing products. To extend the service life, we minimized the amount of heat generated from the motor and other components inside the unit. That also resulted in a highly energy efficient product. In the future, we plan to expand/improve the product line by developing products that are easy to use, while also offering high environmental performance and reliability.



Koichi Shimizu (left)
Nobuhiko Moriyama
TMP Technology Group, Turbo Molecular Pump Business Unit, Industrial Machinery Division

Measures for Conservation of Biodiversity

Shimadzu Forest Within Head Office/Sanjo Works Grounds
This 8,000 m² green space within the Head Office/Sanjo Works grounds is the first site in Kyoto Prefecture to earn the maximum AAA ranking by the Ecosystem Conservation Society-Japan under the Japan Habitat Evaluation & Certification Program. Planted with mainly native species, the forest helps form a regional ecological network. In FY 2016, the forest also started fostering and preserving an ecosystem closely tied to the development of traditional culture in Kyoto, such as *Asarum caulescens* (*Futaba-aoi* in Japanese) used in Kyoto's Aoi Matsuri Festival and fragrant eupatorium (*eupatorium japonicum*) mentioned in the *Tale of Genji*. These efforts were even designated as an official Cooperative Project to Restore the Traditional Biology and Culture of Kyoto City, based on the Kyoto City Biodiversity Plan.



A Chestnut Tiger Butterfly Visits a Fragrant Eupatorium Planted in the Shimadzu Forest

Conservation of Regional Biodiversity

Shimadzu is involved in biodiversity conservation activities within and outside Japan, including participation in the Kyoto Model Forest Movement to help cultivate the Shimadzu Corporation Forest in the city of Nantan, in Kyoto Prefecture. In Japan, Shimadzu actively participates in cleanup activities around Lake Biwa and Lake Shinji, which were designated by the Japanese Ministry of the Environment as an important satoyama-landscape for the conservation of biodiversity. The eight Shimadzu Group companies in China have cooperated with the China Youth Development Foundation since 2010, to participate in the "Protection of Mother River" activities. It involves planting forests to protect the water resources and soil of the Liao River that flows through Northern China and restore its vegetation.



Shimadzu Group Company Employees Participate in "Protection of Mother River" Activities in Hebei Province, China

Support for Environmental Activities Outside of Shimadzu

Shimadzu is involved in activities to provide support outside of Shimadzu as well, such as to improve the environmental capabilities and stimulate environmental awareness of external stakeholders, and contribute to local environments. Specifically, we conduct on-site classes about the environment at educational institutions ranging from elementary schools to universities, accept factory tours, participate in cleanup activities near Shimadzu operations, and give presentations at seminars held outside Shimadzu, for example. At elementary schools, classes on the environment are taught using unique teaching materials developed by the Eco-Club (a team of women from within Shimadzu that engages in environmental projects). These classes have been offered since 1999, with over 50,000 students participating thus far.



On-Site Environmental Class at an Elementary School

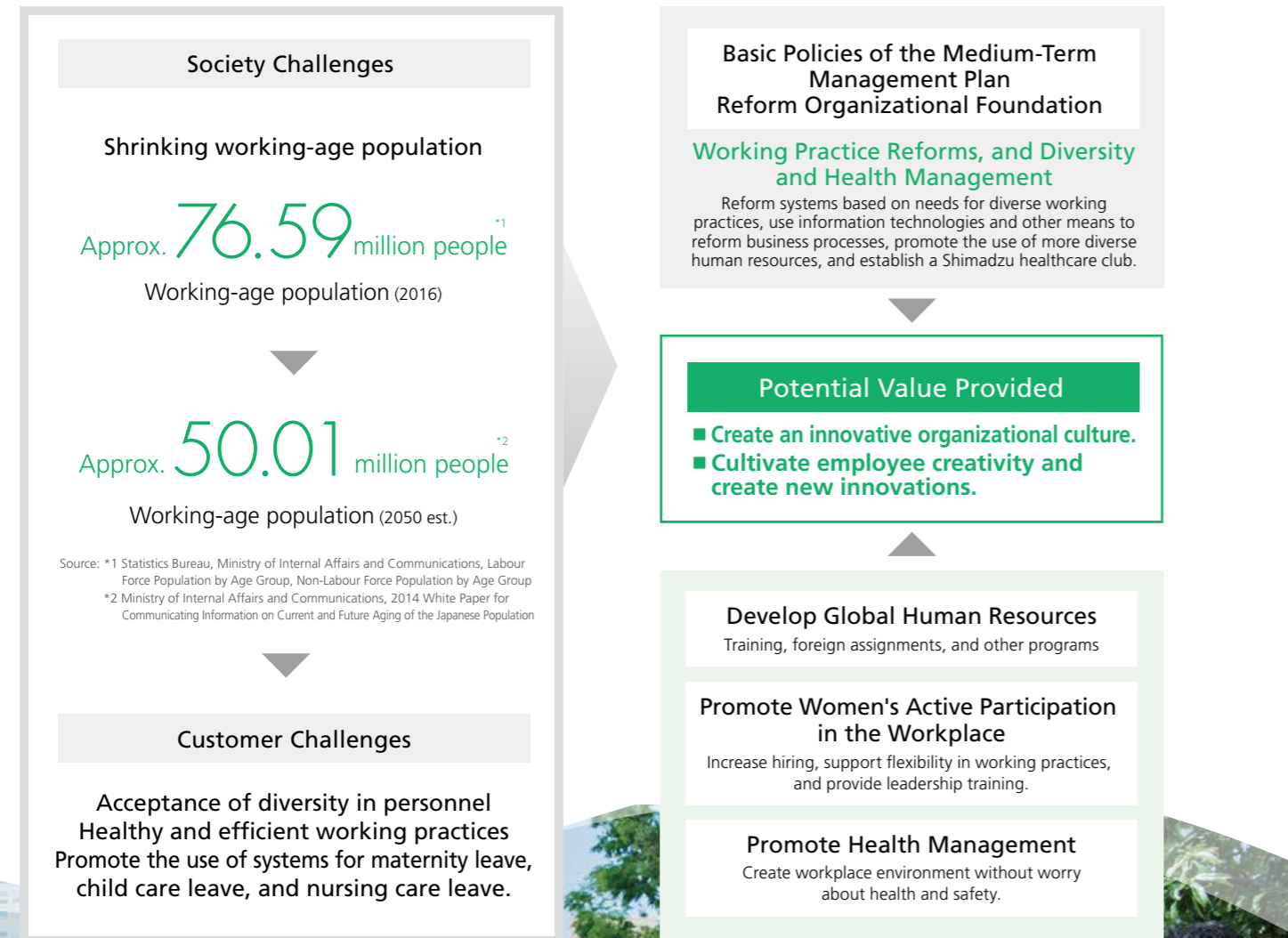


For more information about Eco-Products Plus, refer to the website.
<https://www.shimadzu.com/csr/eco/product.html>

For more results and details about environmental activities, refer to the website.
<https://www.shimadzu.com/csr/index.html>

Human Resource Development

We Will Develop Human Resources That Create Innovations by Further Promoting Health Management and Acceptance of Diversity



Measures by Shimadzu Corporation

Measures to Promote Women's Active Participation in the Workplace

To strengthen our diversity management practices, we are mainly implementing three measures to promote the more active participation of women in the workplace—increase the hiring of women, increase flexibility for working practices, and develop women business leaders. We are expanding and improving systems for recruiting women and supporting more diversity in working practices, such as by hiring at least 30 % women among full employees hired each year, increasing the ratio of women in management positions to 5 % (40 women) by FY 2020, and expanding/improving the systems for more diverse and flexible work arrangements for women employees, such as to accommodate child care or nursing care needs.

▶ Selected as a Nadeshiko Brand

Shimadzu Corporation was selected as a 2016 Nadeshiko Brand. The Japanese Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange have jointly selected Nadeshiko brands each year since 2012 as a means of recognizing publicly listed companies with outstanding practices for empowering women in the workplace.



Health Declaration

The health and safety of each employee and their ability to work positively and with vitality serve as the basis for achieving Shimadzu Corporation's management principle "Realizing Our Wishes for the Well-being of both Mankind and the Earth." Accordingly, we declare that we will strive toward realizing our wishes for health.

1. Ensuring Health

We will be highly mindful of our own health and engage in independently maintaining our own health. In addition, together with our colleagues we will endeavor to create a secure, safe, and comfortable workplace.

2. Sustaining Businesses Through Health

We will uphold the company spirit of promoting employee health, which has continued since the company was founded in 1875. In addition, by supplying leading-edge scientific technologies and services, we will help ensure the health of employees and society and promote the growth and prosperity of our businesses.

3. Contributing to the Future of Society Through Health

We will grow together with society and strive to help create a prosperous future for mankind based on ensuring the health of our employees and their families, who are at the core basis of our business operations, and based on our corporate philosophy "Contributing to Society through Science and Technology."

October 2017

Promoting Health Management

We are implementing a wide variety of measures to prepare and build a workplace environment where employees can freely work without worry about health or safety. Consequently, we are taking various measures to maintain and improve employee health and improve systems for ensuring a worry-free workplace, such as promoting cancer screenings, preventing lifestyle diseases, promoting preventive practices and care for mental health, sponsoring health-improvement events, designating three days per week as no-overtime days (Mondays, Wednesdays, and Fridays), and supporting child care and nursing care needs. We will also reduce each employee's risk of disease by introducing a wearable device-based health management system.

Note: "健康経営" (Kenko Keiei) is a registered trademark of the Workshop for the Management of Health on Company and Employee.

▶ Recognized as "White 500" Company with Superior Health Management

Shimadzu Corporation was selected as a "White 500" company (large enterprise category) under the "Certified Health & Productivity Management Organization Recognition Program—White 500," which is operated jointly by the Japanese Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi since 2017 to recognize companies with outstanding health management practices for maintaining and improving employee health.



Human Resource Development

Human Resource Development Provides the Foundation for Supporting Shimadzu's Business Operations and Achieving Sustainable Growth

Basic Policy

In addition to increasing our technology development capabilities for contributing to the advancement of science and technology, we also think of human resource development as building the foundation for stronger management resources. Therefore, we are developing the human resources to serve as the basis for supporting Shimadzu businesses and achieving sustainable growth by specifying an image of human resources necessary for achieving our corporate philosophy and management principle.

Various Training to Develop Global Human Resources

We are training human resources for Shimadzu businesses that are being deployed globally. Younger employees are stationed outside Japan for at least two years to cultivate a deeper understanding of other cultures, improve their communication skills, and discover/solve specific local challenges, so that they can use what they learned during their assignment outside Japan in their work when they return to Japan. With different training provided for different stages, focus is placed on developing human resources able to provide the driving force behind further globalization of Shimadzu businesses. For example, new managers at Group companies outside Japan are provided with management skills that can be used for leadership in Shimadzu Group workplaces and certain section/group-level managers selected as executive management candidates are provided management knowledge and trained to determine and understand the current status of their Group company and think about management issues and their own vision/mission.

Feedback from a Participant in Local Training Outside Japan ▶▶

In October 2014, I went to graduate school in the United States to obtain an MBA degree. At graduate school, I learned about American business practices by taking classes in human resources management, law, finance, marketing, and business systems. Due also to the fact that the school was located in San Francisco's Bay Area, one of the most diverse areas in all of the United States, it increased my appreciation for other cultures and heightened my sensitivity to diversity through first-hand exposure to cultural, religious, racial, and other differences. After returning to Japan, I joined the Corporate Strategy Planning Department, where I have been involved in drafting and implementing the Shimadzu Group medium-term management plan.



Emi Mitogawa
Assistant Manager, Business Development Group,
Global Strategy Planning Unit, Corporate
Strategy Planning Department

For more details, refer to the website.
<https://www.shimadzu.com/csr/social/pp.html>

Improving Skills for Supporting Manufacturing Capabilities

To improve the skills necessary for supporting Shimadzu manufacturing capabilities, employees are encouraged to obtain skills certification under the Japanese national skill testing system. They are also paid an incentive to obtain certification. In FY 2016, five employees passed the top level test and 24 passed the second level test. Skills were further refined by Shimadzu employee participation in the National Skills Competition held in October 2016.

■ Training for Developing Global Human Resources

Training Name	Target	Number of Participates Total/FY 2016
Local Training Outside Japan	Junior employees hired about five years ago	36 (since FY 2012)/5
Global Manager Training	Newly promoted managers of Shimadzu Group companies outside Japan	61 (since FY 2014)/21
Management Training	Selected section/group-level managers within Shimadzu Corporation	63 (since FY 2015)/23
Sales Leader Training Program	Executive managers in sales departments	103/16
BASIC Training (BASIC: Business-mind And Skill up Institutional Course)	Recently hired technical personnel	1,051 (since FY 1996)/65

Note: From FY 2017, Innovation Leadership Training is also provided for department general managers and corporate officers (8 participants in FY 2017).

Diversity

Creating Workplaces Where the Abilities of All Employees Are Maximized by Respecting and Promoting Diversity

Basic Policy

As Shimadzu continues to deploy businesses globally, we are committed to creating workplaces where human resources are used so that the abilities of all employees are fully utilized, while achieving a healthy balance between work and personal life (work-life balance). We believe that respecting and promoting diversity is necessary for understanding the various senses of value, solve problems, and meet the needs in respective countries.

Diversity Training Is Conducted to Better Understand and Promote Diversity

Before diversity can be promoted, it is important that employees understand the importance of diversity. Therefore, training is provided to promote acceptance throughout the organization. In FY 2016, an outside instructor was invited to give a presentation about working practices based on diversity, such as the current status of and issues with diversity and the status of diversity at other companies, the importance of work-life balance and career planning, and so on. We think that if employees understand the importance of actively introducing diversity into management practices, it will result in better utilization of employee abilities. Therefore, we intend to continue measures to promote diversity.



Meeting of Women Managers

For more details, refer to the website.
<https://www.shimadzu.com/csr/social/wp.html>

Diversity Promoted in New-Graduate Hiring to Increase Human Resources with Diverse Senses of Value

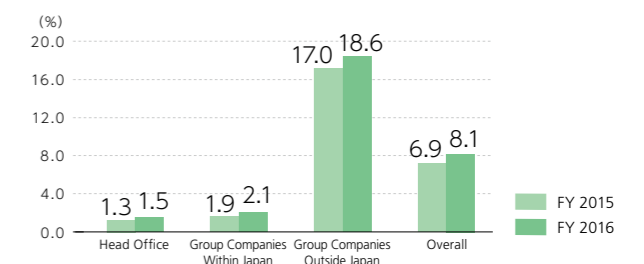
With nearly 50 % of Shimadzu Group sales currently coming from outside Japan, Shimadzu has earned an excellent reputation as a globally successful company among world-wide customers. Of the approximately 11,500 total employees in the Shimadzu Group, about 4,400 are local employees (non-Japanese) that work at subsidiaries outside Japan. Also, 17 newly graduated non-Japanese exchange students were hired at the head office. To utilize even more diverse human resources in the future, we will actively promote hiring human resources with a variety of senses of value, regardless of their nationality, gender, or other differences.

Creating an Organization Where Strengths Can Be Better Utilized

We are currently prioritizing measures to promote the active participation of women in the workplace. In November 2015, we launched the WiSH* project team for promoting the effective using of women so that we strengthen hiring, improve systems for evaluation and training, achieve more flexible working practices, and so on. We also held meetings for women managers to interact with a woman corporate officer and meetings for women employees to exchange views with a woman director. Based on our goal to increase the ratio of women in management positions to 5 % (40 managers) by 2020, we are currently working to create workplaces where it is easier for women to work.

* WiSH is an acronym for Women in Shimadzu/Work-life-balance improvement in SHIMADZU. It is based on the desire of women to create a workplace where maintaining a balance between the work and personal life is a normal part of the workplace, so that the strengths of each employee can be fully utilized within that work environment.

■ Ratio of Women in Management Positions



Note: In FY 2016, 161 women were in management positions throughout all consolidated operations, which is 8.1 % of all management positions.

Labor Practices and Human Rights

Respect for Human Rights Will Improve Job Satisfaction and Contribute to Society

Basic Policy

We believe that respecting human rights will help promote the creativity and individuality of each employee and self-actualization through their work, and will also enable continuing to make a valuable contribution to the company and society. Recognizing that respect for human rights is also a social responsibility, we are committed to ensuring that no human rights violations occur within Shimadzu or our entire supply chain. By respecting human rights we also aim to create a pleasant workplace where employees have a sense of job satisfaction.

Stimulating Awareness and Instilling an Understanding About Preventing Human Rights Violations

Shimadzu has established and practices policies forbidding abuse of power or other forms of harassment. To ensure no human rights abuses occur, a variety of training is provided to employees to instill a deeper understanding of human rights. In FY 2016, a presentation on workplace harassment was conducted for management personnel, which was attended by about 350 participants from Shimadzu Corporation and 19 Group companies in Japan. An outside expert was invited to give the presentation on the causes, background, prevention measures of workplace harassment, and so on. We will continue to conduct training to more deeply instill the information, increase the attendance rates, and improve awareness about human rights.



Harassment Training for Management Personnel

For more details, refer to the website.
<https://www.shimadzu.com/about/procurement/index.html>

Measures and Policies for Conflict Minerals

Shimadzu has committed not to participate in any procurement transactions that result in human rights violations. Within our supply chain as well, we promote measures that prioritize respect for human rights and that do not involve child labor or forced labor. As part of that commitment, we have established capabilities for avoiding conflict minerals* within Shimadzu and, in FY 2016, established the Shimadzu Group Policy Regarding Conflict Minerals. It prohibits using any raw materials that contain conflict minerals that directly or indirectly fund armed groups or involve actions against humanity. By managing transactions in accordance with the Organisation for Economic Co-operation and Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and by investigating suppliers using the Conflict Minerals Reporting Template (CMRT), which is based on the Conflict-Free Sourcing Initiative (CFSI), we are implementing measures to understand the status throughout the entire supply chain and avoid using such materials.

* The term conflict mineral refers to four types of minerals (gold, tin, tantalum, and tungsten) mined in the Democratic Republic of the Congo and nine surrounding countries, which are known to serve as a funding source for armed groups.

Compliance with the Modern Slavery Act 2015

Shimadzu opposes slave labor and human trafficking, recognizes internationally declared human rights, and conducts business practices accordingly. We are also in the process of complying with the Modern Slavery Act 2015 that Britain enacted in 2015. Accordingly, Shimadzu started measures for Shimadzu's 2015 fiscal year and planned for implementation in the future based on Shimadzu's 2015 Slavery and Human Trafficking Statement issued in October 2016. Measures for FY 2016 were reported in September 2017. Currently, no cases of problems with child labor or forced labor have been discovered in our procurement activities. If any are discovered, corrections will be promptly implemented to quickly resume business activities that are respectful of human rights.

Activities That Contribute to Society

Shimadzu Promotes the Spread of Science and Technology by Supporting Interest in Science by Researchers and Children

Basic Policy

Ever since Shimadzu was founded in 1875, we have always conducted business practices based on contributing to society through the development of useful and revolutionary products. In addition, we will also promote the widespread use of science and technology through supporting the development of scientists, teaching children, and other activities.

Outstanding Researchers Awarded Shimadzu Award and R&D Grant

Every year, Shimadzu offers the Shimadzu Award to deserving individuals conducting basic research in scientific technology, mainly involving scientific measurement or related fields, and research and development grants to young researchers. In FY 2016, Mr. Piero Carninci (RIKEN) was selected to receive the Shimadzu Award. The technology he developed for analyzing genomes is essential for genome research and is used as an essential technology for the international genome analysis project. It is also expected to have medical applications in the future. Twelve other advanced technology projects were also selected to receive research and development funding. All of these projects are expected to produce important results and advancements in the future.



Mr. Piero Carninci (right) Receiving the Shimadzu Award

For more details, refer to the website.
<https://www.shimadzu.com/csr/mecenat/index.html>

Cooperation with the Koshien* of Science

The "Koshien of Science," which is sponsored by the Japan Science and Technology Agency (JST), was established in FY 2011 as a competition between junior high and high school students interested in science, for the purpose of broadening their view of science and increasing the number of top level scientists. Shimadzu contributes to the event by presenting the Shimadzu Award to the winning team. For the Sixth Koshien of Science competition in FY 2016, the Shimadzu Award was presented to the team from Gifu High School in Gifu Prefecture.

* Koshien refers to the stadium where the Japanese national high school baseball tournament is held each year.

Deeper Interest in Science Stimulated at Shimadzu Hands-On Analysis School

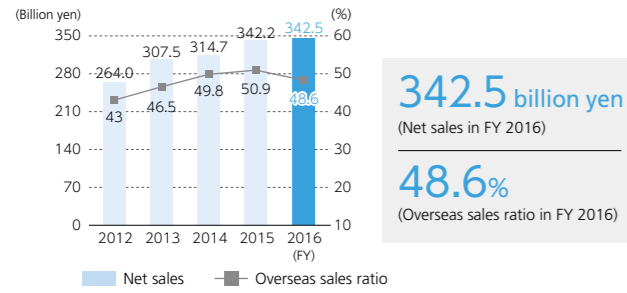
Based on a desire to provide an opportunity for kids to take an interest in science, in FY 2007 Shimadzu established a Shimadzu Hands-On Analysis School so that kids can try operating analytical instruments. Thus far, over 3,500 students have spent time from their spring or summer vacations to participate in the school. By performing experiments in (1) learning, (2) creating things, and (3) operating analytical instruments, the school is intended to stimulate a deeper interest in science by learning about how instruments work and their underlying scientific principles. In the light spectrum course, where a spectrophotometer is operated, learners investigate how light and objects are perceived based on the theme "Light and Color." They use a hand-made monochromator to observe syrup and a lamp.



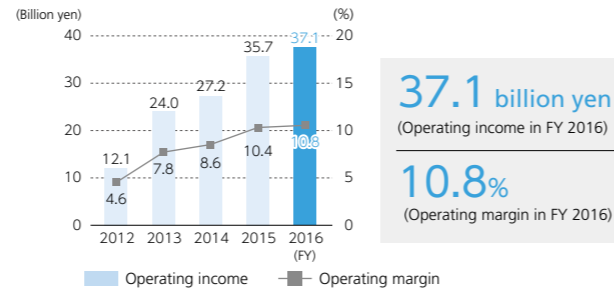
Shimadzu Hands-On Analysis School

Key Data over the Past Five Years

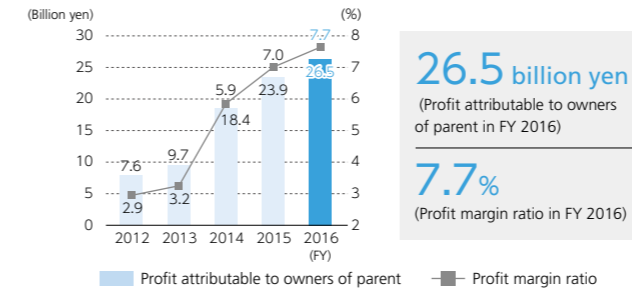
Net Sales/Overseas Sales Ratio



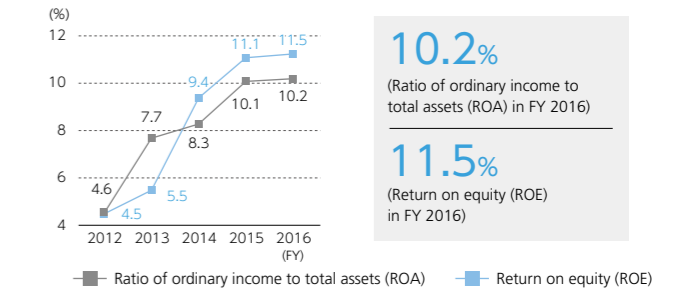
Operating Income/Operating Margin



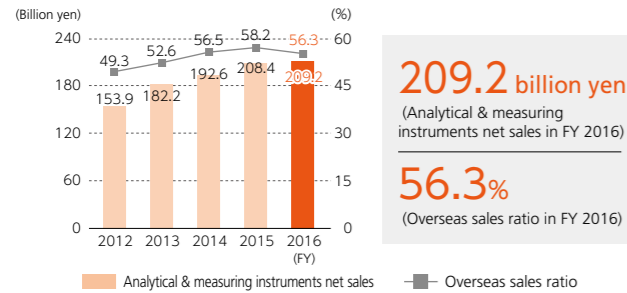
Profit Attributable to Owners of Parent/Profit margin ratio



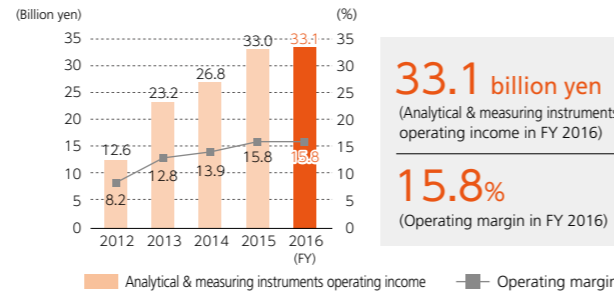
Ratio of Ordinary Income to Total Assets (ROA)/Return on Equity (ROE)



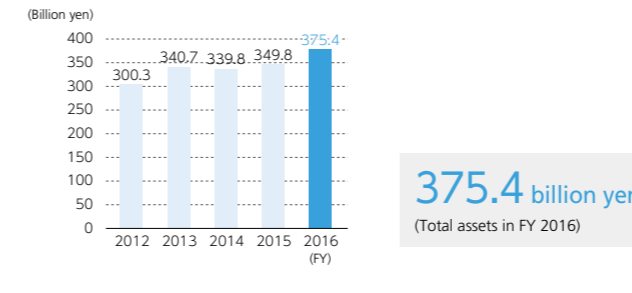
Analytical & Measuring Instruments Net Sales/Overseas Sales Ratio



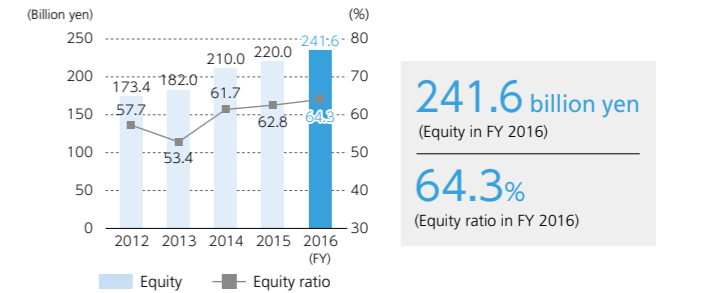
Analytical & Measuring Instruments Operating Income/Operating Margin



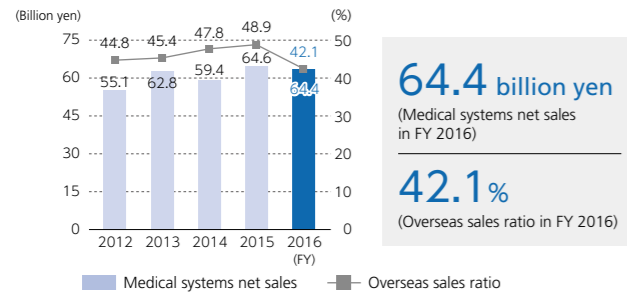
Total Assets



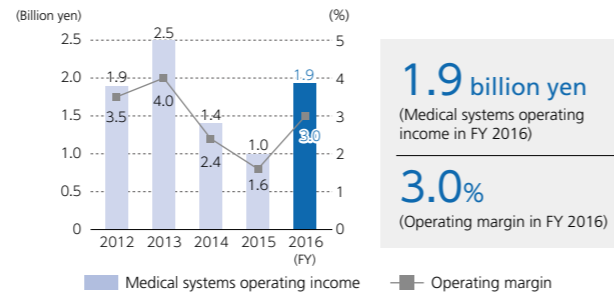
Equity/Equity Ratio



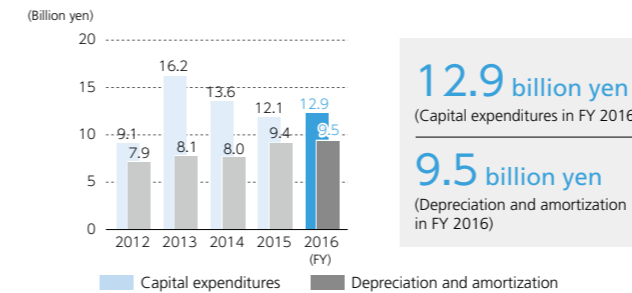
Medical Systems Net Sales/Overseas Sales Ratio



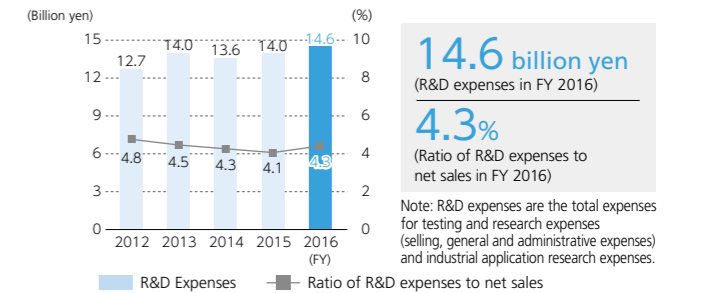
Medical Systems Operating Income/Operating Margin



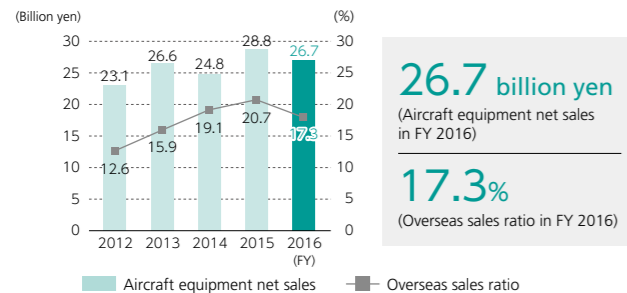
Capital Expenditures/Depreciation and Amortization



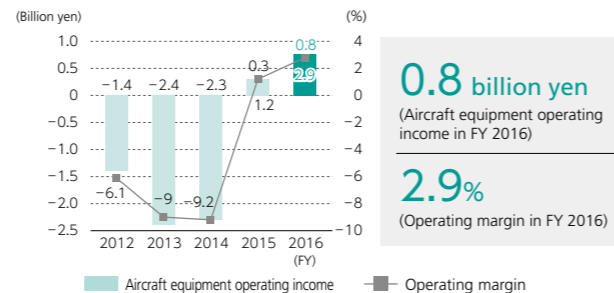
R&D Expenses/Ratio of R&D Expenses to Net Sales



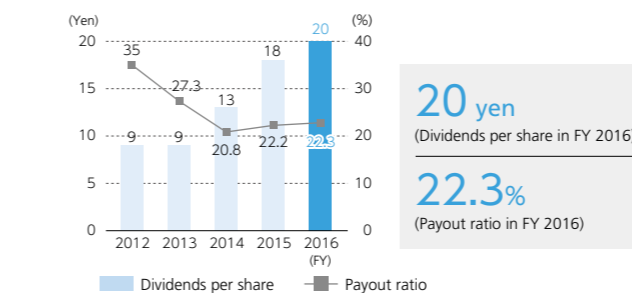
Aircraft Equipment Net Sales/Overseas Sales Ratio



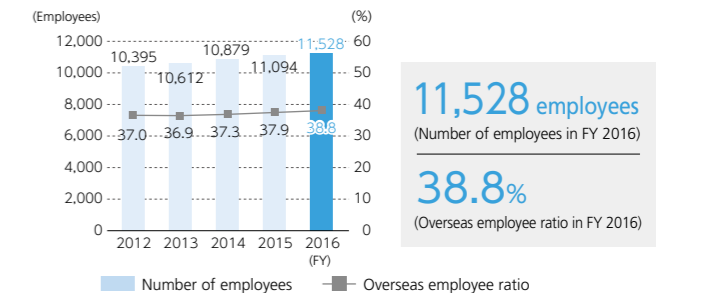
Aircraft Equipment Operating Income/Operating Margin



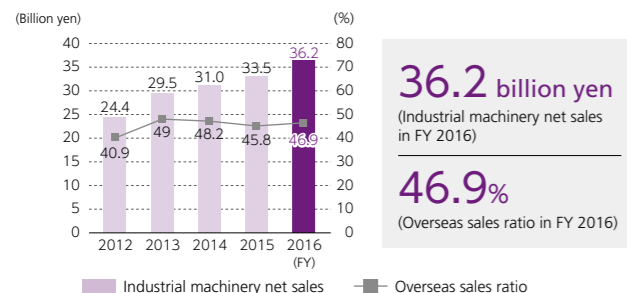
Dividends per Share/Payout Ratio



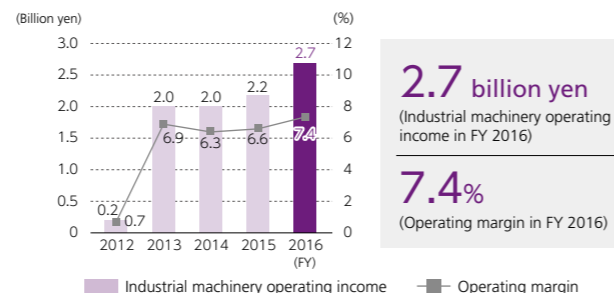
Number of Employees/Overseas Employee Ratio



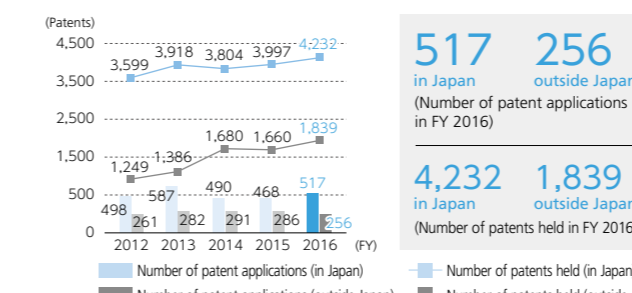
Industrial Machinery Net Sales/Overseas Sales Ratio



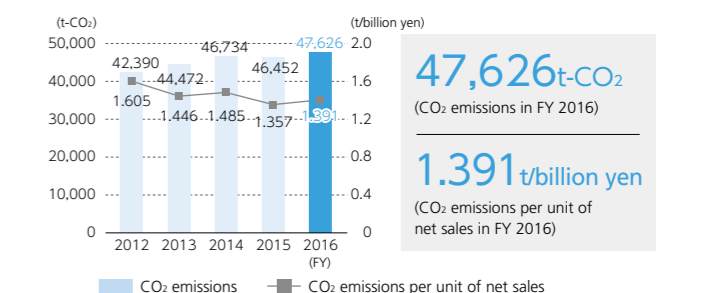
Industrial Machinery Operating Income/Operating Margin



Number of Patent Applications/Number of Patents Held



CO₂ Emissions/CO₂ Emissions per Unit of Net Sales



For more details, refer to the website.
<https://www.shimadzu.com/ir/factbook.html>

Financial Statements

Consolidated Balance Sheets

(In million yen)

	FY 2015	FY 2016
Assets		
Current assets		
Cash and time deposits	46,907	56,698
Trade notes and accounts receivable	105,430	112,877
Merchandise and products	40,497	40,588
Work in process	15,457	16,899
Raw materials and supplies	17,715	19,213
Deferred tax assets	9,729	9,603
Other	7,086	8,342
Allowance for doubtful receivables	(1,157)	(1,142)
Total current assets	241,666	263,080
Noncurrent assets		
Property, plant and equipment		
Buildings and structures, net	39,035	39,975
Machinery, equipment and vehicles, net	5,912	5,904
Land	18,602	18,879
Leased assets, net	2,179	2,510
Construction in progress	728	628
Other, net	9,699	10,853
Total property, plant and equipment	76,158	78,751
Intangible fixed assets	7,558	8,396
Investments and other assets		
Investment securities	14,654	13,779
Long-term receivables	175	174
Deferred tax assets	6,388	4,160
Other	3,565	7,535
Allowance for doubtful receivables	(368)	(523)
Total investments and other assets	24,415	25,126
Total noncurrent assets	108,131	112,273
Total assets	349,798	375,354

(In million yen)

	FY 2015	FY 2016
Liabilities		
Current liabilities		
Trade notes and accounts payable	52,422	57,263
Short-term loans	3,056	2,963
Lease obligations	940	1,007
Accounts payable	11,523	11,363
Income taxes payable	4,997	4,870
Allowance for employees' bonuses	8,093	8,188
Allowance for director's bonuses	284	275
Provision for loss on defense equipment	374	484
Other	15,893	17,730
Total current liabilities	97,587	104,147
Long-term liabilities		
Unsecured bonds	15,000	15,000
Long-term debt	1,094	648
Lease obligations	1,451	1,758
Liability for directors' retirement benefits	182	184
Liability for retirement benefits	13,682	10,708
Other	828	1,277
Total long-term liabilities	32,239	29,577
Total liabilities	129,827	133,725
Net assets		
Shareholders' capital		
Common stock	26,648	26,648
Additional paid-in capital	35,188	35,188
Retained earnings	153,758	174,391
Treasury stock	(861)	(885)
Total shareholders' capital	214,734	235,342
Accumulated other comprehensive income		
Net unrealized gain on available-for-sale securities	5,036	5,850
Foreign currency translation adjustments	1,293	(1,429)
Cumulative adjustments to retirement benefits	(1,370)	1,568
Total accumulated other comprehensive income	4,959	5,988
Non-controlling interests	277	297
Total net assets	219,971	241,629
Total liabilities and net assets	349,798	375,354

Consolidated Statements of Income

(In million yen)

	FY 2015	FY 2016
Net sales	342,236	342,479
Cost of sales	201,850	206,070
Gross profit	140,385	136,409
Selling, general and administrative expenses	104,683	99,319
Operating income	35,701	37,089
Other income		
Interest income	197	224
Dividend income	199	211
Insurance payments received	242	228
Subsidy received	419	493
Other	780	654
Total other income	1,839	1,812
Other expenses		
Interest expenses	182	138
Foreign exchange loss	1,045	72
Other	1,472	1,651
Total other expenses	2,700	1,862
Ordinary income	34,840	37,039
Extraordinary income		
Gain on sale of property, plant and equipment	37	32
Total extraordinary income	37	32
Extraordinary losses		
Impairment loss	-	780
Loss on disposal of property, plant and equipment	209	176
Loss on write-down of investment securities	273	1
Provision for loss on defense equipment	374	-
Total extraordinary losses	856	958
Income before income taxes	34,021	36,113
Income taxes	9,618	8,763
Income taxes adjustments	436	819
Total income taxes and income taxes adjustments	10,054	9,582
Profit	23,966	26,530
Profit attributable to non-controlling interests	66	57
Profit attributable to owners of parent	23,899	26,473

Consolidated Statements of Comprehensive Income

(In million yen)

	FY 2015	FY 2016
Profit	23,966	26,530
Other comprehensive income		
Net unrealized gain on available-for-sale securities	(163)	813
Foreign currency translation adjustments	(5,535)	(2,451)
Retirement benefit adjustments	(3,210)	2,938
Total other comprehensive income	(8,910)	1,301
Comprehensive income	15,056	27,832
(Break down)		
Comprehensive income attribute to owners of parent	15,002	27,787
Comprehensive income attribute to non-controlling interests	53	45

Consolidated Statements of Cash Flows

(In million yen)

	FY 2015	FY 2016
Cash flows from operating activities		
Income before income taxes	34,021	36,113
Depreciation and amortization	9,425	9,546
Impairment loss	-	780
Increase (decrease) in allowance for doubtful receivables	21	144
Increase (decrease) in allowance for employees' bonuses	847	103
Increase (decrease) in allowance for directors' bonuses	(20)	(5)
Increase (decrease) in liability for retirement benefits	(1,716)	1,189
Interest and dividends income	(396)	(435)
Interest expenses	182	138
Foreign exchange (gain) loss	29	(2)
Net (gain) loss on sale and valuation of investment securities	273	-
Net (gain) loss on sale and disposal of property, plant and equipment	172	144
(Increase) decrease in trade receivables	(4,241)	(7,911)
(Increase) decrease in inventories	(1,361)	(3,816)
Increase (decrease) in trade payables	2,305	5,182
Other	2,087	(2,676)
Subtotal	41,629	38,495
Interest and dividends received	398	433
Interest paid	(182)	(138)
Income taxes paid	(9,496)	(9,183)
Cash flows from operating activities	32,348	29,608
Cash flows from investing activities		
Purchase of property, plant and equipment	(11,333)	(11,013)
Proceeds from sale of property, plant and equipment	413	212
Purchase of investment securities	(1,575)	(5)
Increase in long term receivables	(45)	(41)
Decrease in long term receivables	82	36
Purchase of subsidiary	-	(886)
Other	(642)	(605)
Cash flows from investing activities	(13,101)	(12,304)
Cash flows from financing activities		
Borrowing of short-term loans	310	495
Repayment of short-term loans	(6,031)	(550)
Borrowing of long-term debt	880	50
Repayment of long-term debt	(666)	(540)
Cash dividends paid	(5,008)	(5,597)
Dividends payments to non-controlling interests	(25)	(14)
Repayment of guarantee deposits received	(21)	(21)
Payment of finance lease obligations	(1,061)	(1,092)
Other	(64)	(24)
Cash flows from financing activities	(11,689)	(7,294)
Foreign currency translation adjustments on cash and cash equivalents	(2,471)	(1,222)
Net increase (decrease) in cash and cash equivalents	5,086	8,787
Cash and cash equivalents, beginning of period	38,422	43,508
Increase in cash and cash equivalents due to inclusion of subsidiaries in consolidation	-	466
Cash and cash equivalents, end of period	43,508	52,762

Basic Information

Corporate Profile (as of March 31, 2017)

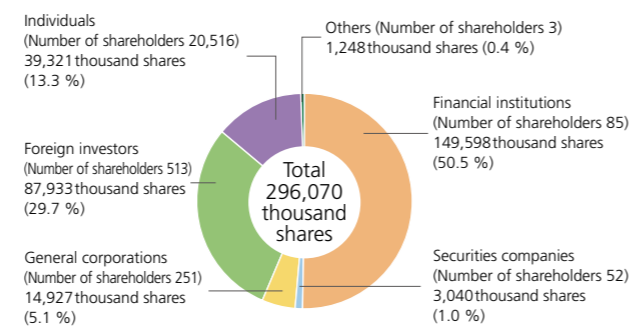
Address of Head Office	1 Nishinokyo Kuwabara-cho, Nakagyo-ku, Kyoto 604-8511, Japan	Number of Shareholders	21,420
Establishment	March, 1875	Number of Employees (Shimadzu Group Total)	11,528
Formation of Limited Company	September, 1917	Stock Listing	Tokyo Stock Exchange
Capital	26,648,899,574 yen	TSE Code	7701
Total Number of Common Stock Issued	296,070,277	Shareholder Registry Administrator	Mitsubishi UFJ Trust and Banking Corporation
		Accounting Auditor	Deloitte Touche Tohmatsu LLC

Major Shareholders

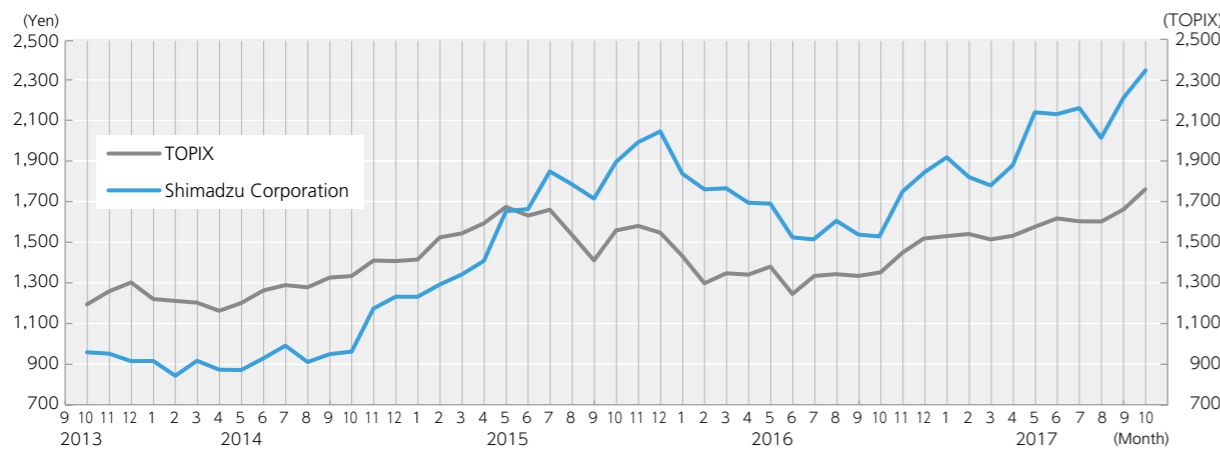
Shareholder Name	Number of Shares Owned (Thousands of Shares)	Shareholding Ratio (%)
Meiji Yasuda Life Insurance Company	20,742	7.04
Japan Trustee Services Bank, Ltd. (Trust Account)	17,911	6.08
The Master Trust Bank of Japan, Ltd. (Trust Account)	17,281	5.86
Japan Trustee Services Bank, Ltd. (Trust Account 9)	7,766	2.63
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	7,672	2.60
Taiyo Life Insurance Company	7,411	2.51
Tokio Marine & Nichido Fire Insurance Co., Ltd.	6,287	2.13
National Mutual Insurance Federation of Agricultural Cooperatives	6,101	2.07
The Bank of Kyoto, Ltd.	4,922	1.67
Japan Trustee Services Bank, Ltd. (Trust Account 5)	4,727	1.60

Note: Shareholding ratio is the ratio held after deduction of treasury shares (1,245,641 shares).

Ratio of Shares by Shareholder Type



Stock Price (Tokyo Stock Exchange)



Editorial Policy for SHIMADZU REPORT 2017

SHIMADZU REPORT 2017 is published as a booklet of financial and non-financial information about the Shimadzu Group that includes the contents of SHIMADZU REPORT 2016 plus a description of corporate social responsibility activities. The report is intended as a communications tool for helping Shimadzu's stakeholders gain a better understanding of the Shimadzu Group's business activities. For more detailed information, please refer to corresponding websites noted where " " For more details, refer to the website" is indicated in this brochure.

Shimadzu Corporation's Primary Means of Issuing Reports



Publishing Dates 2017 Edition: Published in November 2017
2018 Edition: Will be published in the summer of 2018

Reporting Periods From April 1, 2016 to March 31, 2017
(Important information is also included for periods other than stated above.)

Reporting Organizations Shimadzu Corporation and Shimadzu Group companies

Notes About Future Prospects
The business plans, strategies, and forecasts stated in this report are based on currently available information and are subject to risks and uncertainties. Please note that actual results may differ substantially from projected results, due to changes in economic conditions, market trends, or other factors.



In addition to supplying procedure support systems for diagnosing breast cancer, we are also involved in pink ribbon activities, in an effort to save as many women from breast cancer as possible, so they can continue to shine in their respective homes and workplaces.



Shimadzu is selected to be included in the JPX-Nikkei Index 400, which started by the Japan Exchange Group, Tokyo Stock Exchange, and Nikkei in 2014 for the purpose of selecting companies that satisfy the various conditions required by global investment standards.



Shimadzu is recognized jointly by the Japanese Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi as a 2017 "White 500" company, which recognizes large corporations with outstanding health and productivity management practices.



As a company that actively promotes the role of women in the workplace, Shimadzu is selected as a Nadeshiko brand. Nadeshiko brands are selected from respective industries by the Japanese Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange from the approximately 3500 companies listed on the exchange, based on their practices that actively promote the role of women, including providing a work environment where women are free to continue working.



Shimadzu is recognized by the Kyoto Labour Bureau as a company actively involved in raising future generations based on the Act on Advancement of Measures to Support Raising Next-Generation Children.



Shimadzu is included in the FTSE4Good Index Series, an index of companies that meet global standards, based on an assessment of environmental, social, and governance practices by an organization that evaluates socially responsible investing.



Shimadzu is also included in the FTSE Blossom Japan Index, an index of Japanese companies with outstanding environmental, social, and governance practices. The index is also used as an index for evaluation by the Government Pension Investment Fund (GPIF).



Shimadzu is included in the MSCI Japan ESG Select Leaders Index, which selects brands in respective industry categories with a high ESG score based on overall environmental, social, and governance (ESG) risks. The index is also used as an index for evaluation by the Government Pension Investment Fund (GPIF).



Shimadzu is included in the MSCI Japan Empowering Women Index (WIN), which selects companies in respective industry categories that promote the role of women and have a high gender diversity score. The index is also used as an index for evaluation by the Government Pension Investment Fund (GPIF).

Shimadzu Corporation

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In the interest of environmental-friendliness, this report is printed with vegetable oil ink on FSC® certified paper, sourced from responsibly managed forests.