

# **FY2017 to FY2019 Medium-Term Management Plan**

**March 29, 2017  
Shimadzu Corporation  
President and CEO Teruhisa Ueda**

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# I. Review of the Previous Plan 1/4

## Medium-Term Management Plan from FY 2014 to FY 2016

**Basic Policy: Become an Innovative Company**

**That Contributes to the Growth of Customers Globally**

### FY2014 to FY 2016 Medium-Term Management Plan Targets

**Net sales: ¥350 billion**

**Operating margin: 10 %**

**Overseas ratio: 50 %**

(Assumed exchange rates: \$1= ¥ 95 and €1 = ¥ 130)

### Outlook for FY2016 Results

**Net sales: ¥350 billion**

**Operating margin: 10.3 %**

**Overseas ratio: 49 %**

(Assumed exchange rates: \$1= ¥ 105 and €1 = ¥ 117)

### Changes in external environment

**Change in exchange rates (easing of strong yen)**

**Economic recovery in Japan, stable economic growth in US, economic recovery in Asia**

**Slowdown in growth in China and stagnation in resource-based economies**

### Shimadzu's measures

**Strengthen business in China, North America, Europe and other Asian countries**

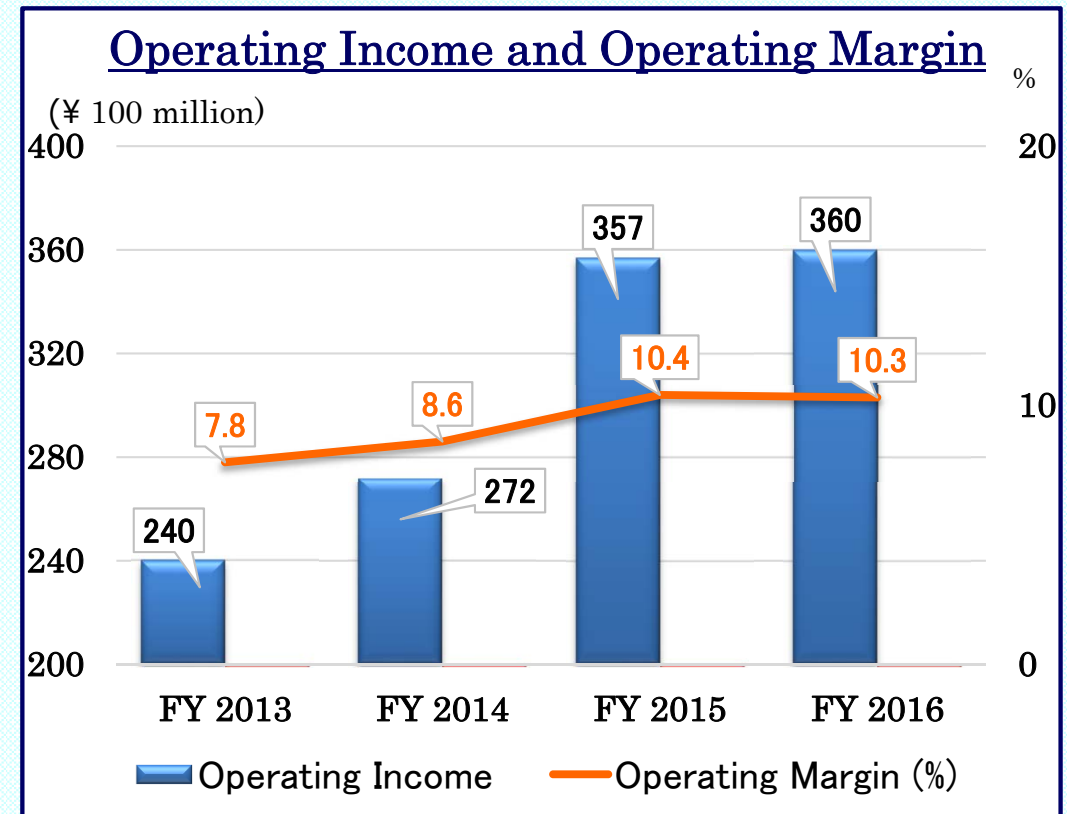
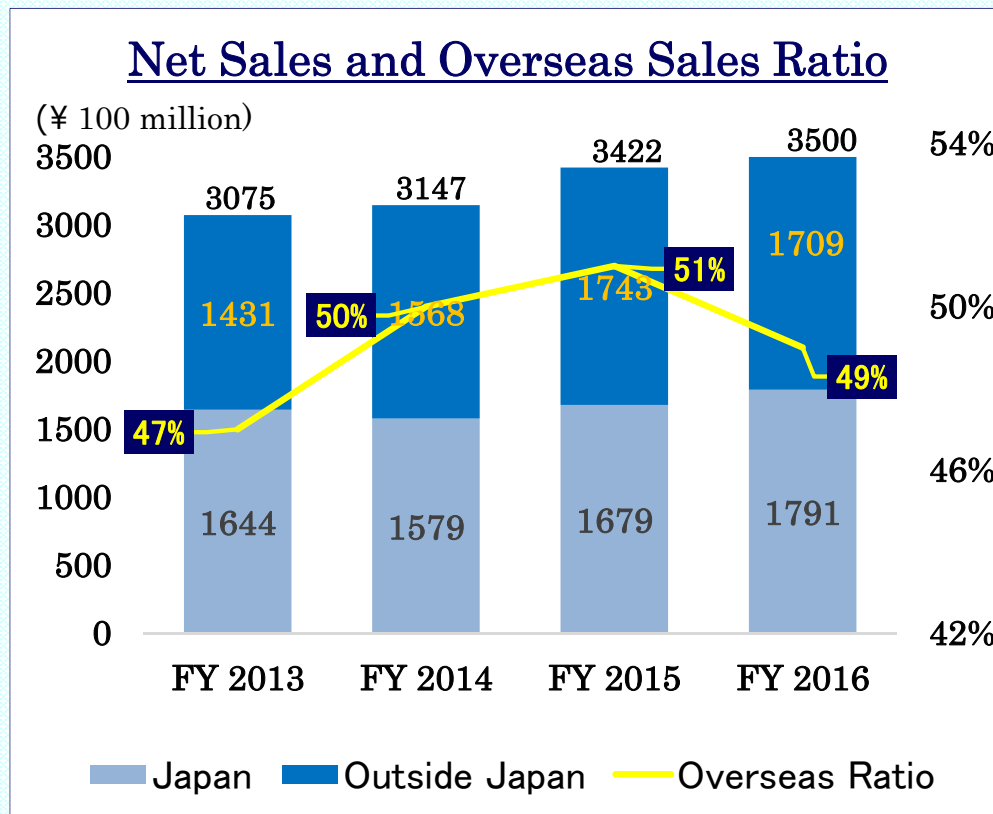
**Promote joint development with outside organizations(establish innovation centers)**

**Expand product lines, strengthen activities in good fields (pharmaceuticals, food safety, etc.)**

**Start strengthening manufacturing locations outside Japan (establish new plant in Malaysia)**

# I. Review of the Previous Plan 2/4

- Net sales in FY 2016 projected to achieve plan
- Operating income and operating margin achieved plan in FY 2015 and projected to achieve plan in FY 2016
- Overseas sales ratio in FY 2016 projected to fall slightly short of achieving plan



# I. Review of the Previous Plan 3/4

## Estimated FY 2016 sales for each segment:

### ■ Analytical & Measuring Instruments:

About 20 % higher than FY 2013 and achieved FY2014-to-FY2016 medium-term plan

### ■ Medical Systems:

About 3 % higher than FY 2013 and 98 % of FY2014-to-FY2016 medium-term plan

### ■ Aircraft Equipment:

Flat from FY 2013, but achieved FY2014-to-FY2016 medium-term plan (returned to profitability)

### ■ Industrial Machinery:

About 20 % higher than FY 2013 and 96 % of FY2014-to-FY2016 medium-term plan

(¥ billion)	FY 2016 Estimate	FY 2013	2014 to 2016 Medium-Term	vs. FY 2013		vs. Medium-Term Plan	
				Change	%Change	Change	%Change
Analytical & Measuring Instruments	217.0	182.2	215.0	34.8	19.1%	2.0	100.9%
Medical Systems	64.5	62.8	66.0	1.7	2.8%	(1.5)	97.7%
Aircraft Equipment	26.5	26.6	24.5	(0.1)	-0.3%	2.0	108.2%
Industrial Machinery	35.4	29.5	37.0	5.9	20.0%	(1.6)	95.7%
Other	6.6	6.5	7.5	0.1	2.1%	(0.9)	88.0%
<b>Total</b>	<b>350.0</b>	307.5	350.0	42.5	13.8%	0.0	100.0%

# I. Review of the Previous Plan 4/4

Estimated FY 2016 sales for each region are shown below.

- In Japan, sales increased by about 15 billion yen, versus FY 2013, and about 28 billion yen outside Japan.
- Sales especially increased in North America (+22 %), China (+19 %), and other Asian countries (+54 %), with North America and other Asian countries achieving the 2014-to-2016 medium-term plan.
- In Japan, sales are projected to achieve the 2014-to-2016 medium-term plan, with 9 % higher sales than FY 2013.
- In the Middle East and South America, little progress was made due to uncertain political and economic conditions.

(¥ billion)	FY 2016 Estimate	FY 2013	2014 - 2016 Medium-Term Plan	vs. FY 2013		vs. Medium-Term Plan	
				Change	%Change	Change	%Change
Japan	179.1	164.4	166.0	14.7	8.9%	13.1	107.9%
North & South America	41.9	37.1	44.0	4.8	12.9%	(2.1)	95.3%
North America	37.3	30.7	36.0	6.6	21.6%	1.3	103.6%
Europe	25.9	23.8	30.0	2.1	8.9%	(4.1)	86.5%
China	58.2	48.9	67.0	9.3	19.1%	(8.8)	86.9%
Other Asian Countries	34.2	22.1	31.0	12.0	54.4%	3.2	110.3%
Other	10.7	11.2	12.0	(0.5)	-4.5%	(1.4)	88.8%
<b>Total</b>	<b>350.0</b>	<b>307.5</b>	<b>350.0</b>	<b>42.5</b>	<b>13.8%</b>	<b>0.0</b>	<b>100.0%</b>

# II. Overview of the New Medium-Term Management Plan

## 1/4

- In an effort to achieve our management principle Realizing Our Wishes for the Well-being of both Mankind and the Earth based on our corporate philosophy Contributing to Society through Science and Technology, Shimadzu has been deploying businesses globally in the areas of human health, the safety and security of society, and the advancement of industry.
- The goal of the new medium-term management plan is to [Become a Company That Solves Challenges in Society in Collaboration with Partners All Around the World](#) by further expanding business and improving Shimadzu's corporate value in the business areas indicated above.

### Business Areas

#### (1) Human Health

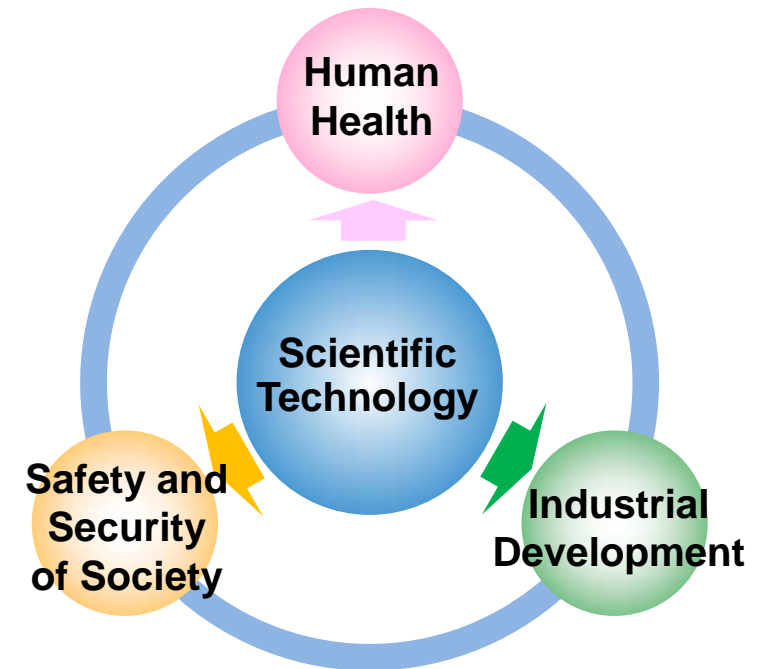
- Contribute to life sciences that help understand the phenomena of life.
- Supply pharmaceuticals and medical diagnostic and treatment devices for supporting healthcare systems.
- Support the development of functionally enhanced foods and other products that promote human health.

#### (2) Safety and Security of Society

- Supply environmental measurement technology for global environmental conservation.
- Contribute to providing a safe infrastructure for society.
- Contribute to industry through food safety and the reliability of transport equipment.

#### (3) Industrial Development

- Supply instruments and key parts that contribute to the broad development of advanced manufacturing industries.



# II. Overview of the New Medium-Term Management Plan 2/4

- Solving the increasingly complicated challenges of society will require a broader range of collaborations that extend across conventional industrial, administrative, and academic boundaries.
- Shimadzu has been supplying high quality products based on high technical capabilities and has deployed businesses for solving challenges in cooperation with customers. By further pursuing this approach, we will strive to solve society's challenges through a broad range of collaborations with customers and others.

Solve challenges faced by customers and society





## II. Overview of the New Medium-Term Management Plan 3/4

- Designate four business fields, **Healthcare, Infrastructure, Material, and Environment/Energy**, as important business fields.
- Expand businesses and increase corporate value by collaborating with research organizations, universities, and private companies to offer advanced technical solutions for society challenges in these four business fields, while also complying with the policies of respective countries.

Important Business Fields	Main Themes
<b>Healthcare</b>	<b>Medical care, life sciences, pharmaceuticals, food safety, functionally-enhanced foods</b> As the most important business field, collaborate more closely with Analytical & Measuring and Medical Systems Divisions and strengthen ability to develop new products with unique features.
<b>Infrastructure</b>	Inspection of various infrastructure and R&D/manufacturing facilities
<b>Materials</b>	New materials, functionally engineered materials, and composite materials
<b>Environment and Energy</b>	Environmental testing, regulatory compliance, renewable energy, and hydrogen energy

# II. Overview of the New Medium-Term Management Plan

## 4/4

<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Invest in Growth Fields</b></p>	<ul style="list-style-type: none"> <li>■ Position healthcare business areas as “advanced healthcare” and aim to create new businesses based on technologies from integrating Analytical &amp; Measuring and Medical technologies.             <ul style="list-style-type: none"> <li>➢ Establish a new Healthcare Business Strategy Unit and develop new business fields.</li> <li>➢ Expand the reagents and consumables business globally.</li> <li>➢ Promote open innovation using innovation centers.</li> </ul> </li> </ul>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Strengthen Profitability</b></p>	<ul style="list-style-type: none"> <li>■ Strengthen the profit base by strengthening competitiveness in key business categories and reviewing and rebuilding unprofitable business categories.</li> <li>■ Expand the aftermarket business by using IoT and AI to strengthen the service businesses and expanding/improving the line of reagents and consumables products.</li> <li>■ Develop products and applications that differentiate Shimadzu from competitors by promoting joint research and development projects.</li> </ul>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Reform Organizational Foundation</b></p>	<ul style="list-style-type: none"> <li>■ Reform work practices: Introduce telecommuting and other systems for meeting diverse working practice needs and reform business processes by using information technology (Start working practice reforms project in March 2017).</li> <li>■ Diversity management: Promote using a diverse variety of human resources (women, senior employees, and global human resources)</li> <li>■ Environmental management: Expand eco-product lines, and contribute to biodiversity and low-carbon societies</li> </ul>

# III. Businesses to be Strengthened 1/2

## – Advanced Healthcare –

### ■ Advanced Healthcare

- Create innovative products and services in a wide range of medical fields, such as prevention, diagnostics, treatment, and drug discovery, through collaboration with specialized medical institutions, such as university hospitals.
- Aim to double business to 20 billion yen level through growth.

### ■ Promote R&D and develop new business models

#### Healthcare R&D Center

- For integrating technologies from Analytical & Measuring and Medical Systems, while also establishing open innovation research facilities for promoting joint research with advanced medical institutions.
- Scheduled for completion in January 2019 in Kyoto



#### Healthcare Business Strategy Unit

- For creating new technologies by integrating technologies from Analytical & Measuring and Medical Systems, and for establishing highly unique business models.
- Scheduled of foundation at April 2017

### ■ Develop businesses in new healthcare areas

- **Dramatically improve physician convenience:** Rapid pathological examinations, support of surgery
- **Detect previously undetectable changes:** Biomarker and breast cancer examinations
- **Support innovation in drug discovery and treatment:** Examination of drug concentration in blood

## III. Businesses to be Strengthened 2/2

### – Aftermarket Business –

Consider establishing a new cross-organizational function that serves as a control tower to coordinate aftermarket business activities and expand aftermarket businesses through cross-organizational measures.

## Analytical & Measuring Instruments

**Aftermarket ratio: FY 2019 target 30 % (FY 2016 estimate is 28 %)**

- Expand reagent and consumables sales (Shimadzu products + M&A).
- Supply high quality services, such as big data analysis using AI and IoT.

## Medical Systems

**Aftermarket ratio: FY 2019 target 30 % (FY 2016 estimate is 28 %)**

- Supply detailed services based on IoT, such as failure prediction.

## Industrial Machinery

**Turbo molecular pump aftermarket ratio: FY 2019 target 22 % (FY 2016 estimate is 16 %)**

- Expand aftermarket business at semiconductor manufacturers in Korea and Taiwan

## IV. Investment Plan

### – Capital Equipment and R&D Investment –

- A total of over 120 billion yen in capital and R&D investments are planned over the next three years, including maintaining R&D conditions, reinforcing the IT infrastructure, and reinforcing R&D capabilities.
- Promote M&A for acquiring a wide variety of business solutions and reinforcing sales and service networks outside Japan.

### Capital Investment: 70 Billion Yen

- New buildings for “Healthcare R&D Center” and Technology Research Laboratory for maintaining R&D conditions
- Reinforcement of IT infrastructure and R&D capabilities

### R&D Investment: 53 Billion Yen

- Mainly in healthcare fields to promote active investment in R&D
- Increase R&D spending to achieve target 5 % R&D expense-to-sales ratio to improve current level and accelerate R&D.



## V. Management Plan Targets

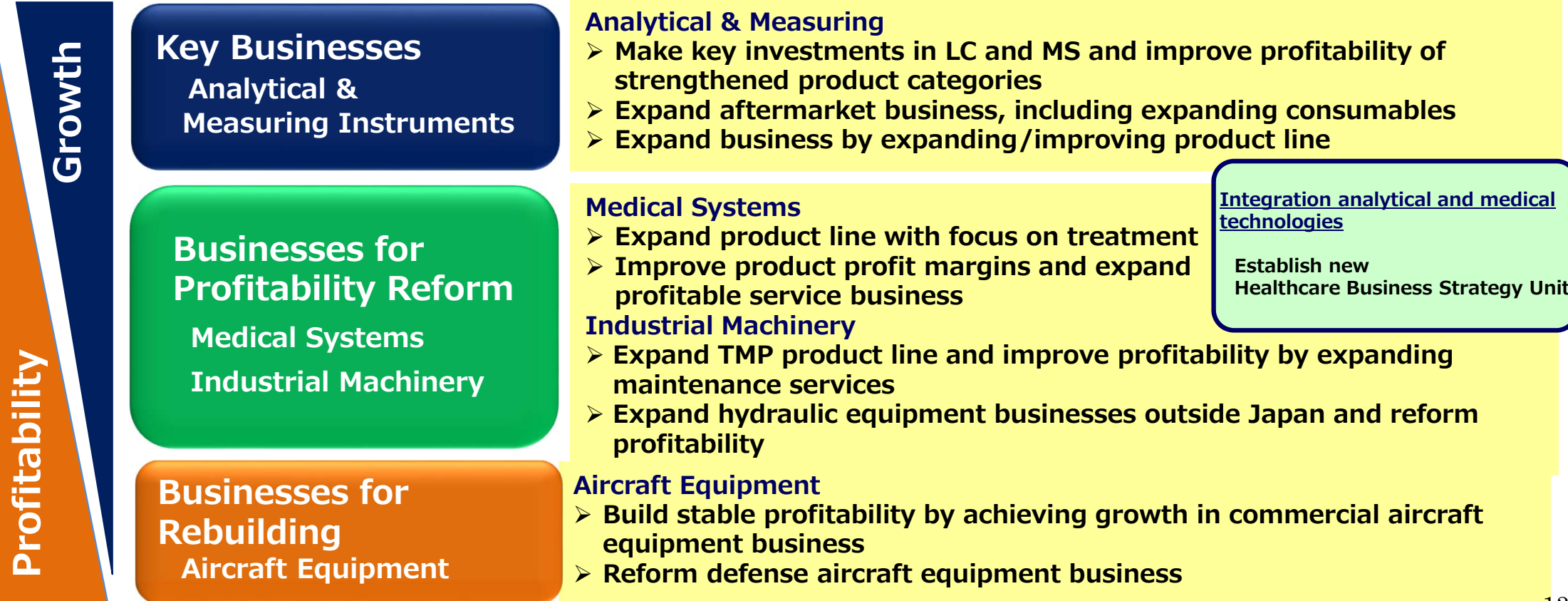
### Targets for FY 2019

Sales of over 400 billion yen, operating income of over 45 billion yen, operating margin of over 11 %, overseas sales ratio of over 50 %, and ROE of over 10 %

(¥ billion)		FY 2019 Plan	FY 2016 Estimate	Change	% Change
<b>Sales</b>		<b>over 400</b>	350	50	14.3%
<b>Operating Income</b>		<b>over 45</b>	36	9	25.0%
<b>Operating Margin</b>		<b>over 11%</b>	10.3%	—	
<b>Overseas Sales Ratio</b>		<b>over 50%</b>	49%	—	
<b>ROE</b>		<b>over 10%</b>	10.5%	—	
Assumed exchange rate	US\$	¥100.00	¥105.00	(¥5.00)	-4.8%
	€	¥110.00	¥117.00	(¥7.00)	-6.0%

# VI. Business Segment Strategies 1/7

- **Growth strategies:** More advanced products/services using AI, IoT, robotics, 3D-printing, etc. Invest in R&D from short and long-term perspective. Establish a Healthcare Business Strategy Unit to accelerate integration of Analytical & Measuring and Medical technologies
- **Strengthen profitability:** Achieve at least 20 % medium and long-term operating margins for Analytical & Measuring Instruments Segment and at least 10 % for other Segments
- **Rebuild businesses:** Strengthen profitability by focusing on selected products



## VI. Business Segment Strategies 2/7

### Segment Sales Targets for FY 2019

(¥ billion)	<b>FY 2019 Target</b>	FY 2016 Estimate	Change	% Change
<b>Analytical &amp; Measuring Instruments</b>	<b>253.0</b>	217.0	36.0	16.6%
<b>Medical Systems</b>	<b>71.0</b>	64.5	6.5	10.1%
<b>Aircraft Equipment</b>	<b>29.0</b>	26.5	2.5	9.4%
<b>Industrial Machinery</b>	<b>40.0</b>	35.4	4.6	13.0%
<b>Other</b>	<b>7.0</b>	6.6	0.4	6.1%
<b>Total</b>	<b>400.0</b>	350.0	50.0	14.3%



## VI. Business Segment Strategies 3/7

### Analytical & Measuring Instruments Sales Plan for FY 2019

(¥ billion)	FY 2019 Target	FY2016 Estimate	Change	% Change
<b>Analytical &amp; Measuring Instruments</b>	<b>253.0</b>	217.0	36.0	16.6%
Mass Spectrometers	45.0	34.4	10.6	30.8%
Liquid Chromatographs	72.0	57.0	15.0	26.3%

#### MS

- Reinforce product line, such as high resolution MS and rapid pathological examination MS.
- Design expert systems based on data processing and analysis using AI and IoT technologies.
- Expand businesses by expanding MS applications, such as molecular diagnosis and cellular analysis.

#### LC

- Reinforce product line of columns, reagents, auto pretreatment equipment, new detectors, and so on.
- Reinforce network business and expand service business based on using AI and the IoT technologies to process and analyze data.
- Develop new businesses in regenerative medicine field by using LC technology to develop new systems/products for cell handling, cell cultivation, and so on.

## VI. Business Segment Strategies 4/7

### **Release cloud-based systems and deploy them globally FY 2019 sales target: 3.5 billion yen (52% increase vs. FY 2016)**

- **Strengthen LabSolutions as integrated platform**
  - Expand product line of new cloud-based systems based on using AI and IoT technologies.
- **Expand service businesses based on using various network systems**
  - Offer total maintenance of user's equipment, global data management, and so on.
- **Develop business in a wider range of fields, such as pharmaceuticals, environmental testing, chemicals, and CROs.**
- **Strengthen networking sales capabilities outside Japan.**

## VI. Business Segment Strategies 5/7

### Promote Joint Development at Innovation Centers

Promote joint development with advanced customers at Innovation Centers in US, Europe, China, and Asia and deploy results globally.

- Strengthen R&D capabilities for application systems needed in respective regions.
- Collaborate with companies and regulatory agencies in respective countries.
- In addition to healthcare, also deploy results in environment/energy and materials fields.
- Design new systems based on business synergies (between Analytical & Measuring and Medical Systems, etc.)



# VI. Business Segment Strategies 6/7

## Medical Systems Sales Plan for FY 2019

(¥ billion)	FY 2019 Target	FY 2016 Estimate	Change	% Change
Medical Systems	71.0	64.5	6.5	10.1%
Cardiovascular Systems	10.5	6.7	3.8	56.7%

### Strengthen X-ray systems

- Expand cardiovascular system sales by offering proprietary applications
- Start 24-hour customer support in Japan and China

### Develop new business areas

#### Cancer diagnosis and treatment support

- Deploy breast PET in China and Asia
- Strengthen deployment of LIGHTVISION near infrared camera system for breast cancer applications and outside Japan.



### Integrate Analytical and Medical Technologies

- Design new systems that integrate X-ray image processing (Medical Systems) and mass spectrometry (Analytical & Measuring) technologies.

## VI. Business Segment Strategies 7/7

### Aircraft Equipment and Industrial Machinery Sales Plan for FY 2019

(¥ billion)	FY 2019 Target	FY 2016 Estimate	Change	% Change
<b>Aircraft Equipment</b>	<b>29.0</b>	26.5	2.5	9.4%
Ratio of Commercial Aircraft Equip.	25%	17%	8-point increase	
<b>Industrial Machinery</b>	<b>40.0</b>	35.4	4.6	13.0%
Turbomolecular Pumps	16.0	13.6	2.4	17.6%

### Aircraft Equipment

- Expand commercial aircraft equipment business and start full production in the US.

### Industrial Machinery

- Aim for No.1 position globally for magnetically levitated turbomolecular pumps and expand maintenance service.
- Launch ball bearing turbomolecular pumps and expand sales in industrial fields.





## VII. Regional Strategies 1/5

**Japan:** Gradual growth trend continues.  
Maintain/expand strong position.

**China:** Rapid increase in investments in scientific technology.  
Increase sales levels.

**Other Asia:** Growth engine for the world.  
Capitalize on growth.

**North America:**  
World's largest and most advanced market.  
Increase Shimadzu brand strength.

**Europe:**  
Advanced market  
Strengthen operational capabilities

### FY 2019 Regional Sales Plan

(¥ billion)	FY 2019 Target	FY 2016 Estimate	Change	% Change
<b>Japan</b>	<b>190.0</b>	179.1	10.9	6.1%
<b>North and South America</b>	<b>55.0</b>	41.9	13.1	31.2%
<i>North America</i>	<i>48.0</i>	37.3	10.7	28.7%
<b>Europe</b>	<b>30.0</b>	25.9	4.1	15.6%
<b>China</b>	<b>70.0</b>	58.2	11.8	20.3%
<b>Other Asia</b>	<b>44.0</b>	34.2	9.8	28.7%
<i>India</i>	<i>14.0</i>	10.2	3.8	37.6%
<b>Other</b>	<b>11.0</b>	10.7	0.4	3.3%
<b>Total</b>	<b>400.0</b>	350.0	50.0	14.3%

## VII. Regional Strategies 2/5

### FY 2019 North America Sales Plan

(¥ billion)	FY 2019 Target	FY 2016 Estimate	Change	% Change
North America	48.0	37.3	10.7	28.7%

Expand businesses in North America by developing innovative applications and products, and by strengthening deployment of business in clinical medicine, pharmaceutical, and other key fields.



### Analytical & Measuring Instruments

- Design innovative products through joint development with advanced customers at the Innovation Center.
- Focus on clinical medicine, pharmaceuticals, and energy fields, and capture academic and government demand.

### Medical Systems

- Launch new products designed specifically for the US.
- Strengthen sales and service capabilities and expand direct sales

## VII. Regional Strategies 3/5

### FY 2019 Europe Sales Plan

(¥ billion)	FY 2019 Target	FY 2016 Estimate	Change	% Change
Europe	30.0	25.9	4.1	15.6%

Strive to satisfy customer needs and offer convenience by developing innovative and comprehensive solutions for clinical medicine.



#### Analytical & Measuring Instruments

- Promote joint R&D at the Innovation Center.
- Focus on growth fields, such as food/food safety, clinical medicine, pharmaceuticals, and automotive.
- Provide strong support for customer businesses by offering comprehensive solutions that include reagents, consumables, methods, equipment, and software.

#### Medical Systems

- Strengthen direct sales network in Germany.

#### Industrial Machinery

- Strengthen sales and service network for turbomolecular pump business.



# VII. Regional Strategies 4/5

## FY 2019 China Sales Plan

(¥ billion)	FY 2019 Target	FY 2016 Estimate	Change	% Change
China	70.0	58.2	11.8	20.3%

Strengthen ability to accommodate new demand structure under China's 13<sup>th</sup> Five-Year Plan, such as for healthcare, environmental testing, and science and technology research.



### Analytical & Measuring Instruments

- Improve business versatility in clinical medicine.
- Launch new products for new regulations.

### Medical Systems

- Strengthen production and sales capabilities

### Industrial Machinery

- Expand turbomolecular pump business.

## VII. Regional Strategies 5/5

### FY 2019 Other Asia Sales Plan

(¥ billion)	FY 2019 Target	FY 2016 Estimate	Change	% Change
Other Asia	44.0	34.2	9.8	28.7%

**Capture increasing demand due to high economic growth and improvement in living standards**

#### **Analytical & Measuring Instruments**

- Develop additional demand in pharmaceuticals, food, environmental testing, chemicals, and automotive fields.
- In pharmaceuticals, capture ongoing demand for LC and network systems.
- Accelerate joint research projects at the Innovation Center with universities, research institutions, software companies, and others.

#### **Medical Systems**

- Strengthen capabilities for marketing to cardiology departments and establish a reference site.

#### **Industrial Machinery**

- Strengthen sales and service network for turbomolecular pump business in Korea and Taiwan.

## VIII. Capital and Dividend Policies

- **Improve capital efficiency and ROE (10 % or higher)**
- **Promote investment for growth, such as for R&D, and also provide returns to stockholders and contributions to society in balance with such investment.**
- **Aim for a total shareholder return of 30 % and, given the appropriate circumstances, consider buying back stocks.**

# IX. Corporate Social Responsibility

Given our corporate philosophy and strengths, we will strive to achieve sustained growth together with stakeholders (such as customers, shareholders/investors, business partners, employees, and local communities) by selecting development projects with the highest priority in terms of “Sustainable Development Goals.”

**SUSTAINABLE DEVELOPMENT GOALS**  
17 GOALS TO TRANSFORM OUR WORLD



Corporate Philosophy

## Environmental management

As an "Eco Solution Provider," we are committed to simultaneously conserving the environment while also generating a profit.

## Work-style reforms, diversity, and health management

Improve working environment  
Create systems for increasing productivity



This document contains forward-looking statements. Forecasts of future business performance that appear in this document are predictions made by the Company's management team and are based on information available when these materials were prepared; they are subject to risks and uncertainties. For this reason, actual results may differ materially from the forecasts made here. Factors that may influence actual business performance include, but are not limited to, economic conditions in Japan and abroad, changes in technologies in markets, and fluctuations in exchange rates. The Company does not undertake to update its forward-looking statements.