

1st Half Results & Financial Position, Ended March 2019

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First Half Financial Highlights



Record First Half Results

Analytical & Measuring Instruments and Industrial Machinery Sales Drove Results. Medical Systems Sales Also Strong

Profitability Continued to Improve

- Record results achieved for all key performance indicators—net sales, operating income, ordinary income, and profit.
- Results driven by Analytical & Measuring Instruments and Industrial Machinery segments.
- Analytical & Measuring Instruments segment results expanded not only for environmental measurement instruments (especially in China), but also for spectroscopy (SP), gas chromatography (GC), and other products. In Europe and the United States, results expanded for liquid chromatograph (LC) and mass spectrometer (MS) products.
- Industrial Machinery segment results expanded for turbomolecular pumps (TMP), hydraulic equipment, and all other categories.
- Medical Systems segment results were also strong for diagnostic X-ray systems.
- Profitability improved, with a 9.5 % operating margin (vs. 9.2 % the previous year).

Statement of Income

- Net sales increased 6 % (year-on-year) to 182.9 billion yen (10.8 billion yen year-on-year increase).
- Operating income increased 11 % (year-on-year) to 17.4 billion yen (1.7 billion yen year-on-year increase).
- Operating margin improved 0.3 points, year-on-year, to 9.5 %.
 - R&D expenses were 8.1 billion yen (1.0 billion yen year-on-year increase).
 - Capital expenditures were 10.2 billion yen (3.3 billion yen year-on-year increase) and depreciation and amortization was 5.6 billion yen (0.4 billion yen year-on-year increase).

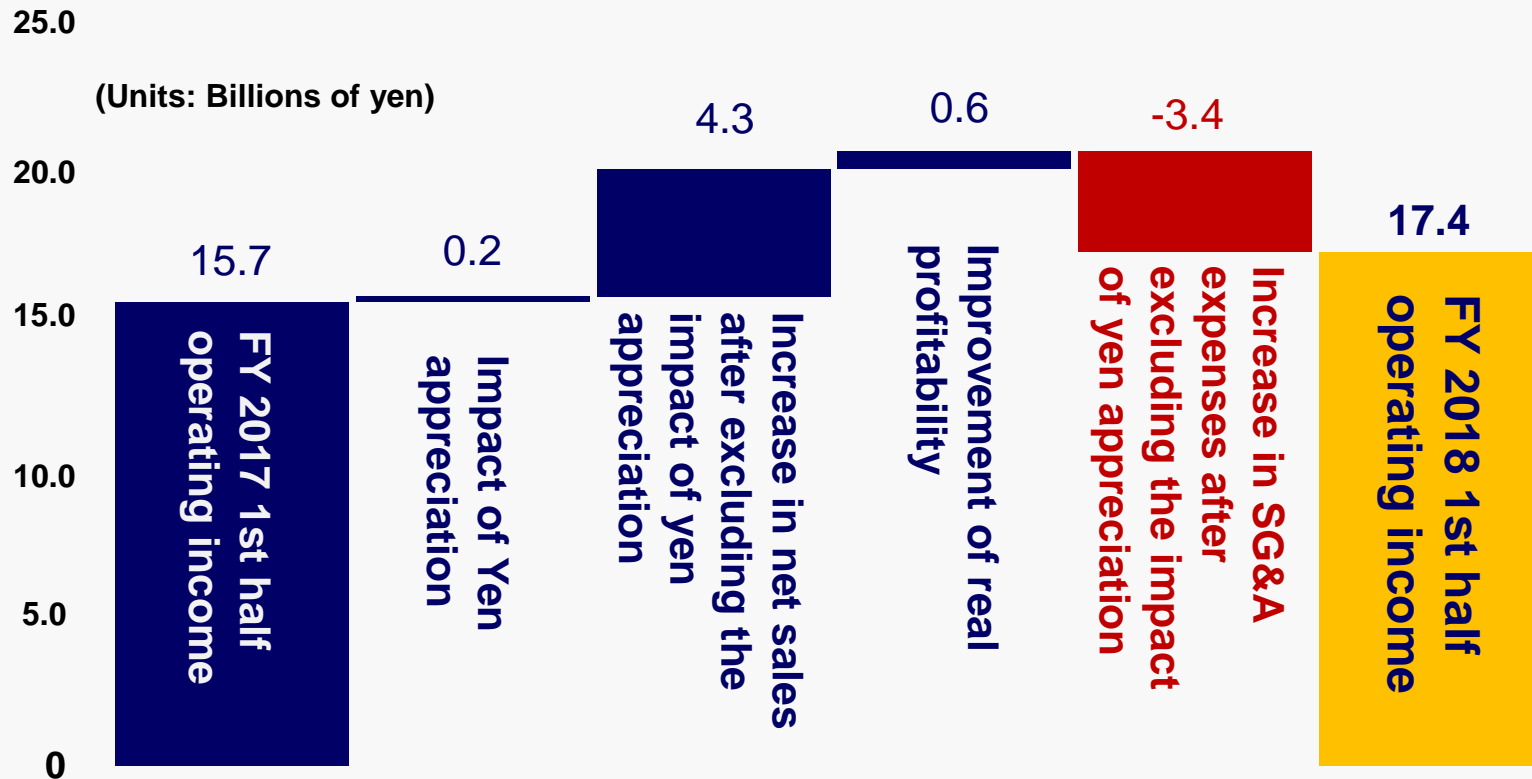
Units: Billions of yen, excluding EPS and percentages		First Half: Apr.-Sep.				
		Profit/Loss		YoY Increase		
		FY 2018	FY 2017	Yen Basis		Local Currency Basis
Net Sales	182.9	172.1	10.8	6.3%	11.0	6.4%
Operating Income	17.4	15.7	1.7	10.7%	1.5	9.3%
Operating Margin	9.5%	9.2%	0.3 pt			
Ordinary Income	18.7	15.6	3.1	19.6%		
Profit Attributable to Owners of Parent	12.9	11.3	1.6	14.1%		
EPS	¥43.85	¥38.41	¥5.44	14.2%		
First Half Average Foreign Exchange Rate	US\$	¥110.32	¥111.13	¥-0.81	-0.7%	
	€	¥129.88	¥126.33	¥3.55	2.8%	
Exchange Rate Effect						
Net Sales		-0.2				
Operating Income		0.2				
R&D Expenses		8.1	7.1			
Capital Expenditures		10.2	6.9			
Depreciation and Amortization		5.6	5.2			

• The "Exchange Rate Effect" values for operating income and "Local Currency Basis" for YoY increase include elimination of unrealized gains from inventories.

• Sensitivity to Exchange Rates: US\$: 1.2 billion yen for net sales and 0.4 billion yen for operating income; €: 0.2 billion yen for net sales and 0.07 billion yen for operating income

Analysis of Year-on-Year Increase/Decrease in Operating Income (2018.4-2018.9)

- The impact of yen appreciation on operating income was 0.2 billion yen.
- Excluding such exchange rate effects, the effect of real sales increases was 4.3 billion yen and improvement of profitability was 0.6 billion yen.
- In contrast, the real increase in SG&A expenses after excluding exchange rate effects was **-3.4 billion yen.** (Of that, 2.1 billion yen was for investment expenses.)



Sales and Income by Business Segment

- Both sales and income increased for three segments—Analytical & Measuring Instruments, Industrial Machinery, and Medical Systems, but Aircraft Equipment sales decreased due to a reactionary decline in sales to the Defense Agency.
- For the Analytical & Measuring Instruments segment, our strongest segment, profitability improved further, which increased the operating margin to 14.0 % (from 13.8 % the previous year).
- For the Industrial Machinery segment as well, sales were strong not only for TMPs, but also for glass winders, vacuum heat treatment furnaces, and other products, which increased the operating margin to 9.7 % (from 9.1 % the previous year).

Units: Billions of yen		First Half: Apr.-Sep.							
		Net Sales/Operating Income/Operating Margin				YoY Increase/Decrease			
		FY 2018		FY 2017		Yen Basis		Local Currency Basis	
Analytical & Measuring Instruments	Net Sales	111.1	OPM	104.0	OPM	7.1	6.8%	OPM	6.9%
	Operating Income	15.6	14.0%	14.4	13.8%	1.2	8.6%	0.2 pt	7.5%
Medical Systems	Net Sales	32.6	OPM	30.6	OPM	2.0	6.6%	OPM	6.7%
	Operating Profit/Loss	0.7	2.1%	0.7	2.2%	0	3.2%	(0.1) pt	-1.4%
Aircraft Equipment	Net Sales	12.4	OPM	13.2	OPM	-0.8	-5.8%	OPM	-5.6%
	Operating Income	-0.2	-1.8%	-0.2	-1.7%	0	—	(0.1) pt	—
Industrial Machinery	Net Sales	22.8	OPM	20.5	OPM	2.3	11.4%	OPM	11.5%
	Operating Income	2.2	9.7%	1.9	9.1%	0.3	18.6%	0.6%	17.6%
Other	Net Sales	3.9	OPM	3.8	OPM	0.2	4.1%	OPM	4.1%
	Operating Income	0.2	4.4%	0.1	2.8%	0.1	68.8%	1.6 pt	68.8%
Operating Income Adjustments		-1.0	—	-1.0	—	0	—	—	—
Total	Net Sales	182.9	OPM	172.1	OPM	10.8	6.3%	OPM	6.4%
	Operating Income	17.4	9.5%	15.7	9.2%	1.7	10.7%	0.3%	9.3%

Net Sales by Region

- Net sales expansion was strong both within and outside Japan, with net sales increasing 5 % to 86.7 billion yen within Japan and 8 % to 96.1 billion yen outside Japan.
- The overseas sales ratio increased 0.7 points to 52.6 %.
- Outside Japan, expansion in North America and Europe was driven by LC and MS products, the strongest Analytical & Measuring Instruments product categories, and by fluoroscopy products in the Medical Systems segment, whereas expansion in China was driven by environmental measurement and GC products in the Analytical & Measuring Instruments segment and TMPs in the Industrial Machinery segment.

Units: Billions of yen	First Half: Apr.-Sep.					
	Net Sales		YoY Increase/Decrease			
	FY 2018	FY 2017	Yen Basis		Local Currency Basis	
Japan	86.7	82.7	4.0	4.9%	4.0	4.9%
Americas	24.9	22.5	2.4	10.8%	2.6	11.4%
<i>North America</i>	22.3	19.7	2.6	13.2%	2.7	13.8%
<i>Europe</i>	14.6	12.5	2.1	17.0%	1.8	14.2%
China	35.7	32.9	2.9	8.7%	3.1	9.4%
Other Asian Countries	16.3	16.4	-0.2	-0.9%	-0.1	-0.5%
Other[*]	4.6	5.1	-0.5	-10.0%	-0.4	-8.0%
Total	182.9	172.1	10.8	6.3%	11.0	6.4%
Sales Outside Japan	96.1	89.3	6.8	7.6%	7.0	7.8%
Overseas Sales Ratio	52.6%	51.9%				

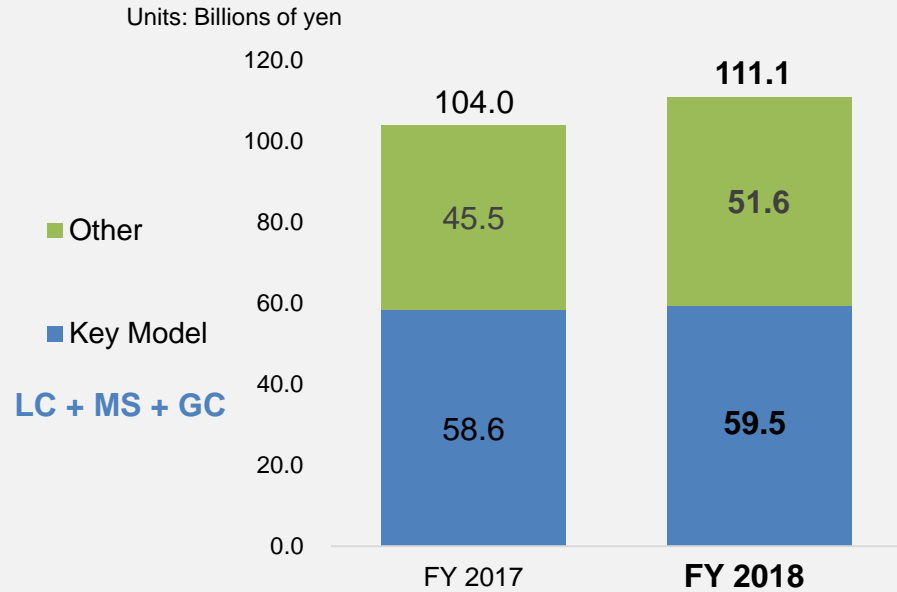
*Other: Australia, Middle East, and Africa

Analytical & Measuring Instruments 1/3

Net Sales by Sub-Segment

Analytical & Measuring Instruments Net Sales: 111.1 billion yen ▶ +7 %	Expansion was mainly due to environmental measurement and GC products in China and LC and MS products in Europe and the United States. Results also increased for SP products world-wide.
Net Sales of Key Models: 59.5 billion yen ▶ +2 %	LC and MS sales increased in North America and Europe, but stalled in Japan. LC sales also stalled in China, but GC sales expanded both within and outside Japan.
Other: 51.6 billion yen ▶ +13 %	Sales of water quality environmental monitoring instruments expanded significantly, due to demand resulting from stronger countermeasures for pollution sources in China.
Overseas Ratio ▶ 61 %	Sales expansion was well-balanced between Japan and outside Japan, with a 6 % increase in Japan and 8 % increase outside Japan. The overseas sales ratio is about the same as the previous year.
Aftermarket Business Sales Ratio ▶ 31 %	Both consumables and service sales expanded. The aftermarket business sales ratio increased 2 points year-on-year.

Analytical & Measuring Instruments —First Half Net Sales



Analytical & Measuring Instruments

- i-Series Plus LC
- MALDI-8020
- Shim-pack GIST Series HPLC Columns
- Nexis GC-2030
- GC-MS Phthalate Ester Screening System
- TOC Analyzer

Analytical & Measuring Instruments 2/3

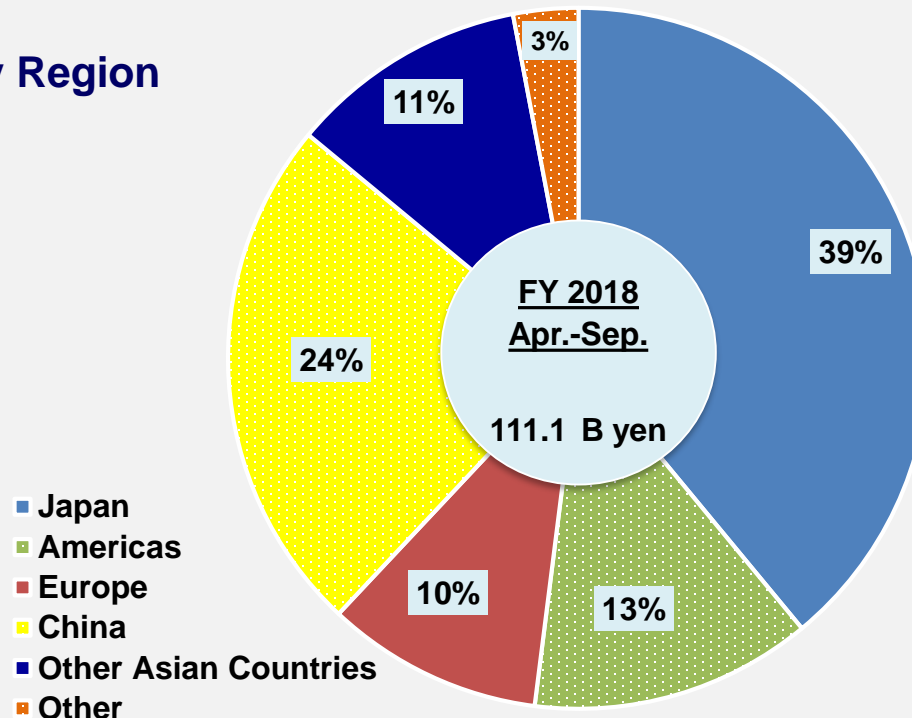
Net Sales by Region

» Overseas Ratio 61 %

Net sales increased 6 % in Japan and 8 % outside Japan, with sales driven by the Americas and Europe and also expanded in China.

The overseas sales ratio was 61 %, which is about the same as the previous year.

Analytical & Measuring Instruments Net Sales by Region



<u>YoY</u>	
Total:	7 %
Japan:	6 %
Total Outside Japan:	8 %
Americas:	11 %
Europe:	12 %
China:	7 %
Other Asian Countries:	3 %
Other:	0 %

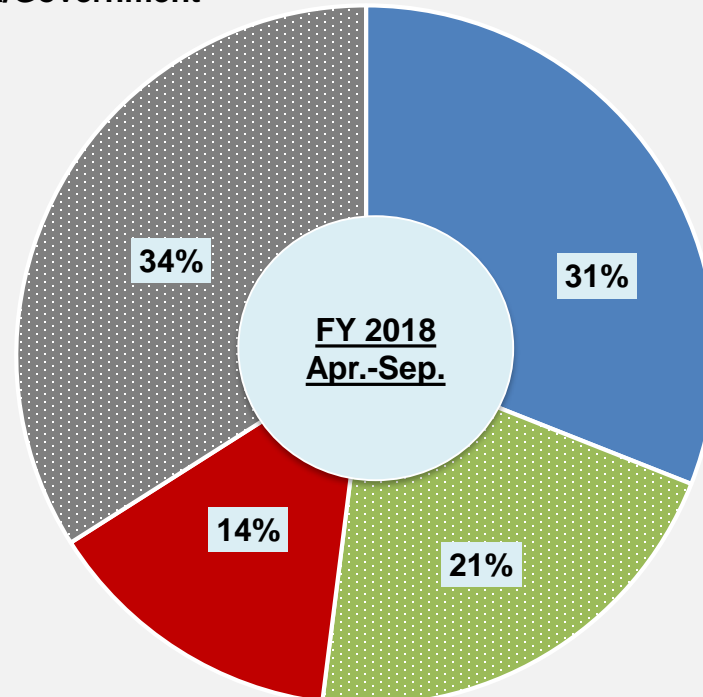
Analytical & Measuring Instruments 3/3

End Markets

- (1) The breakdown by core customer categories (pharmaceuticals/contract analysis/healthcare/foods, materials/machinery/electrical/automotive, and academia/government) remained stable.
- (2) Within the pharmaceuticals/contract analysis/healthcare/foods category, contract analysis sales expanded, but other sales slightly stalled.
- (3) Within the materials/machinery/electrical/automotive category, sales were strong in the materials field, but decreased for machinery and other fields.
- (4) Academia/government sales decreased, mainly in Japan.
- (5) Sales in the Other category increased due to the expanding analytical instruments customer base.

FY 2018 First Half Analytical & Measuring Instruments Net Sales by Field

- Pharmaceuticals/Contract Analysis/Healthcare/Foods
- Materials/Machinery/Electrical/Automotive
- Academia/Government
- Other



<u>YoY</u>	
Pharmaceuticals/Contract Analysis/Healthcare/Foods:	-3 %
Materials/Machinery/Electrical/Automotive:	-1 %
Academia/Government:	-3 %
Other:	+15 %

Medical Systems 1/2

Net Sales by Sub-Segment

- » **+7 %:** **Medical Systems Net Sales** Sales remained strong for X-ray systems, both within and outside Japan.
- » **+6 %:** **X-Ray Systems** Sales were driven by fluoroscopy and angiography systems, with an especially large sales expansion of strategic angiography products in Japan.
- » **30 %:** **Aftermarket Business Sales Ratio** The aftermarket business also expanded, but decreased by 2 points, year-on-year, as a ratio of sales, due to the expansion in angiography system sales and other factors.

Primary Products



Angiography System



Fluoroscopy System



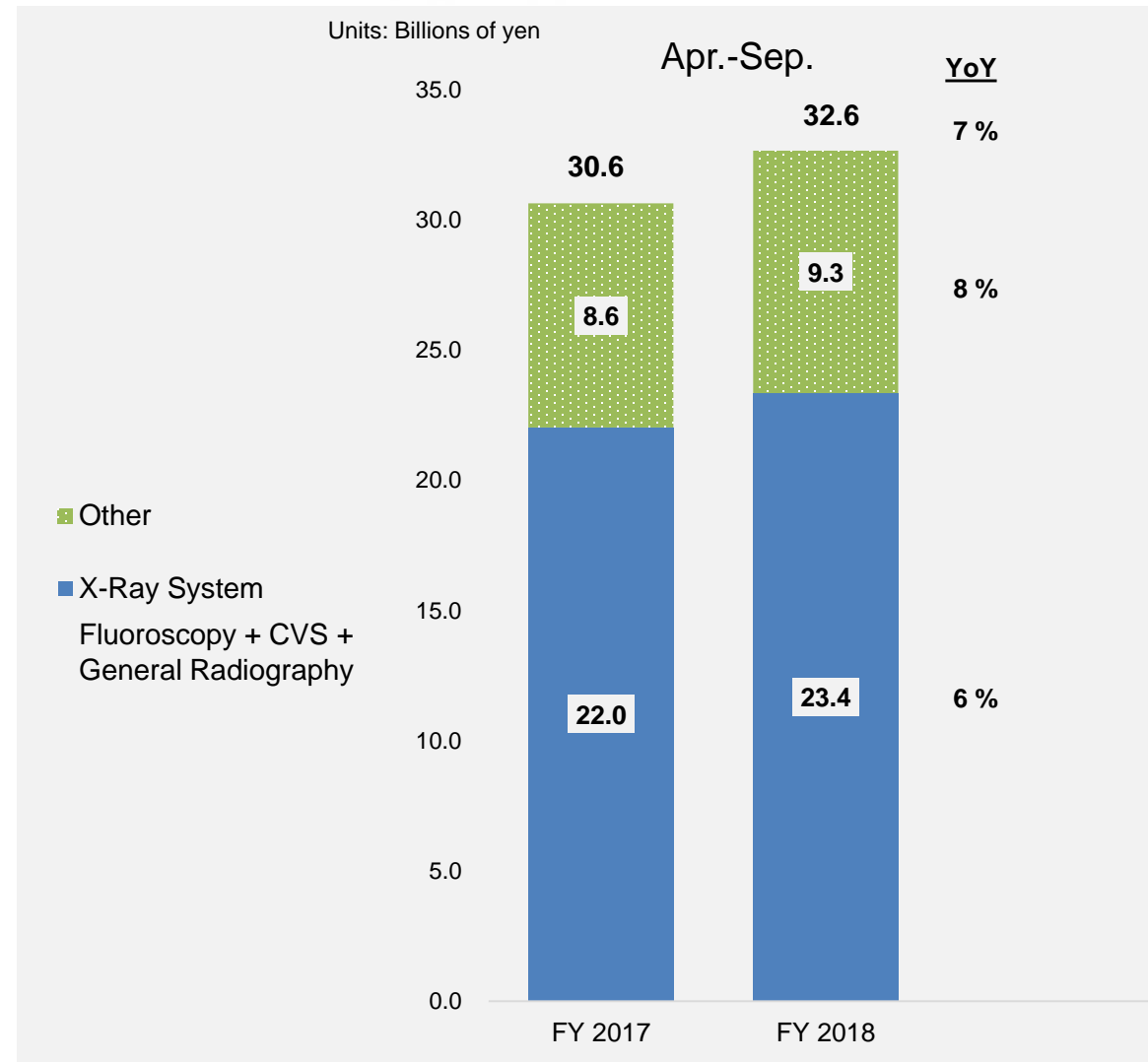
Mobile System



Breast PET System



Radiotherapy-Related System



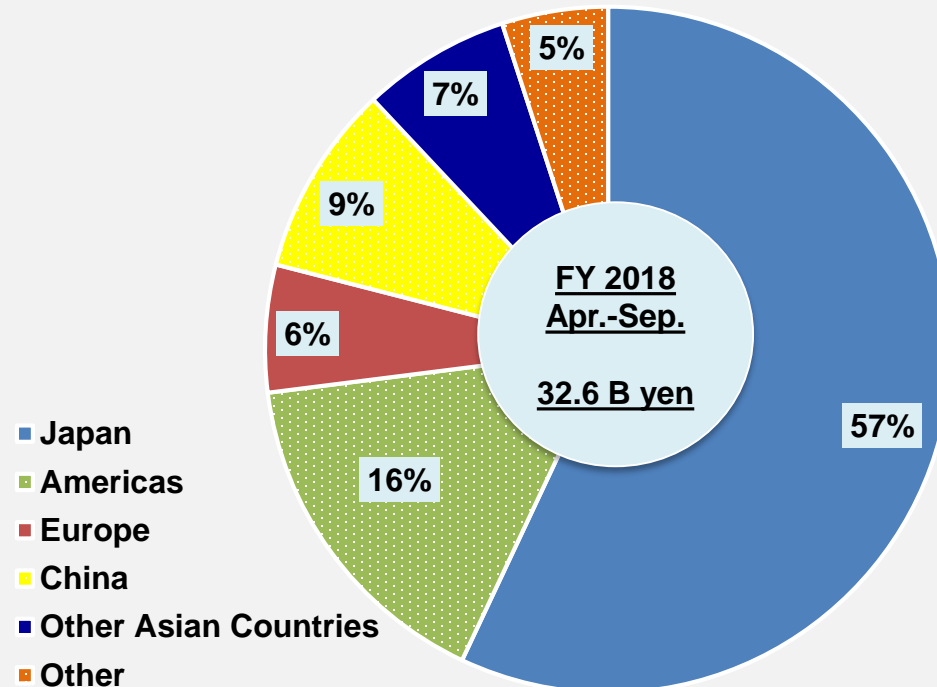
Medical Systems 2/2 Net Sales by Region

» Overseas Ratio 43 %

Sales in Japan and the Americas expanded and recovered from the previous year in Europe, but stalled in China due to project delays and other factors.

The overseas ratio decreased by 1 point (year-on-year) to 43 %.

Medical Systems Net Sales by Region

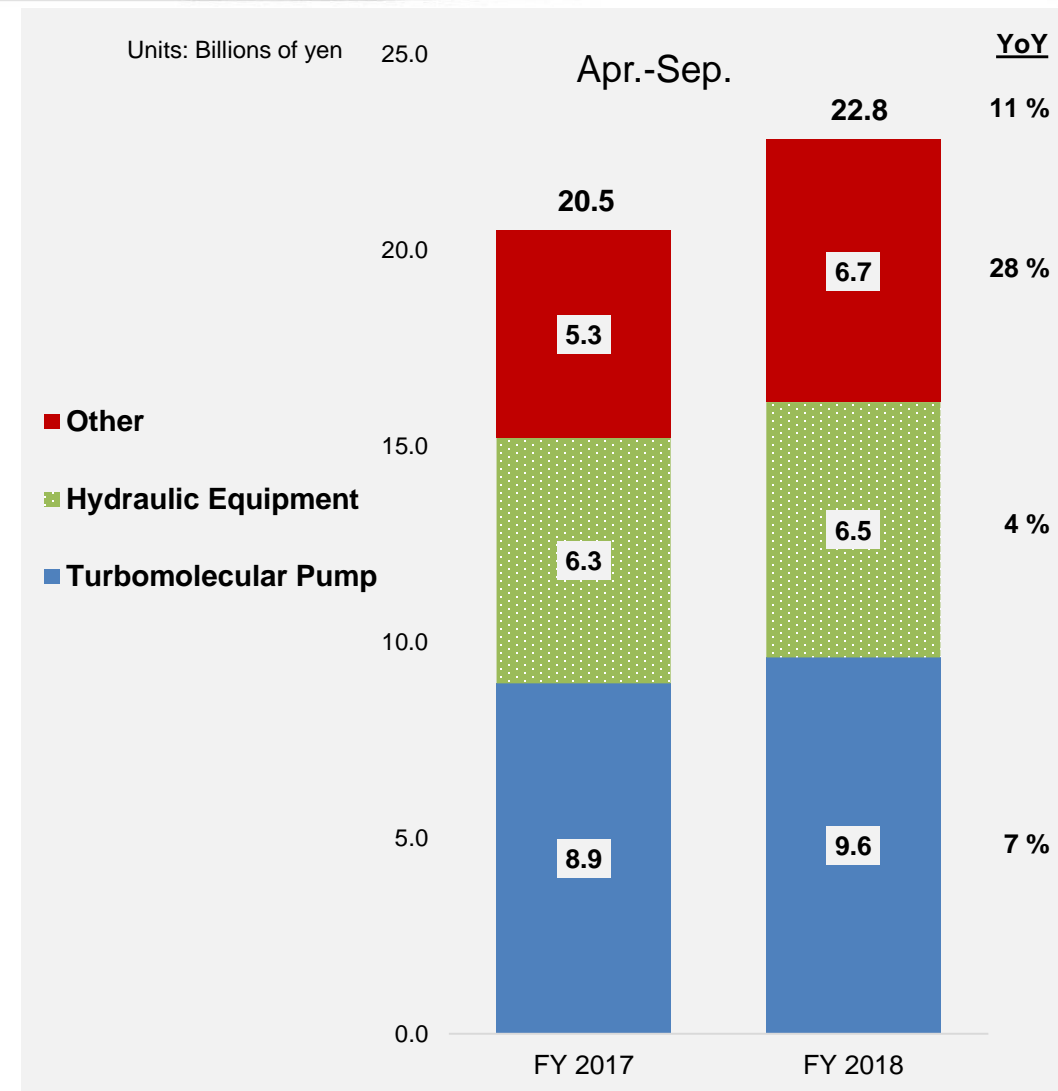


<u>YoY</u>	
Total:	7 %
Japan:	8 %
Total Outside Japan:	4 %
Americas:	7 %
Europe:	81 %
China:	-9 %
Other Asian Countries:	3 %
Other:	-24 %

Industrial Machinery 1/2

Net Sales by Sub-Segment

- » +11 %:** **Industrial Machinery Net Sales**
 Sales of turbomolecular pumps, hydraulic equipment, and other sub-segments all expanded, mainly in the first quarter.
- » +7 %:** **Turbomolecular Pumps**
 Sales expanded in semiconductor, flat panel display, and other fields.
- » +28 %:** **Other**
 Vacuum heat treatment furnace sales expanded significantly in fields such as ceramics and carbide tools and glass winder sales also expanded.



Industrial Machinery 2/2

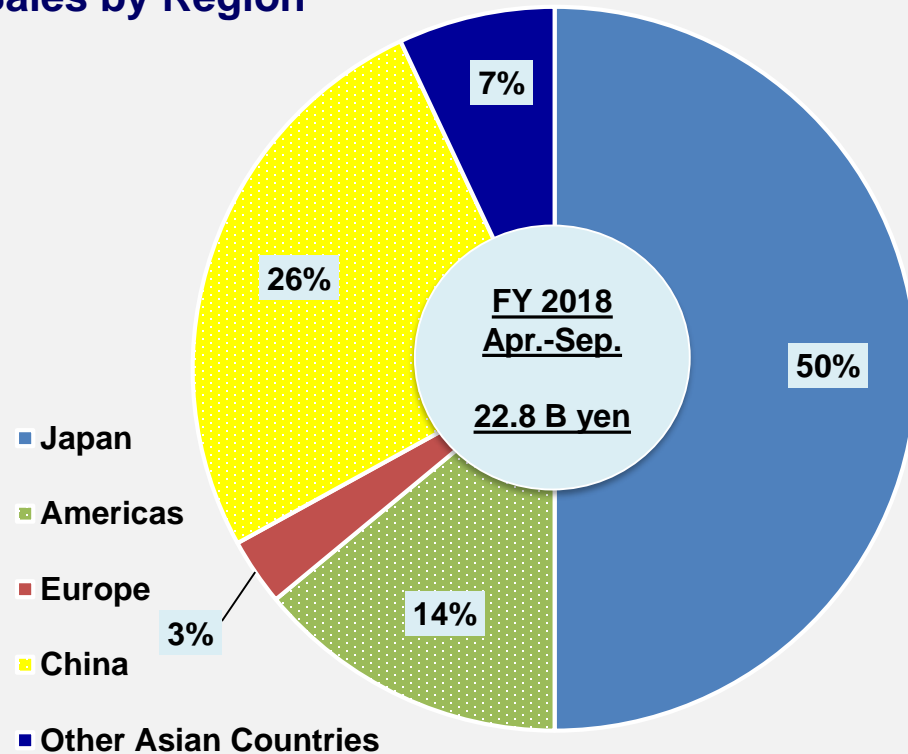
Net Sales by Region

» Overseas Ratio 50 %

Significant sales expansion was mainly for turbomolecular pumps and industrial furnaces in Japan and the United States and for turbomolecular pumps and glass winders in China.

The overseas ratio decreased by 1 point (year-on-year) to 50 %.

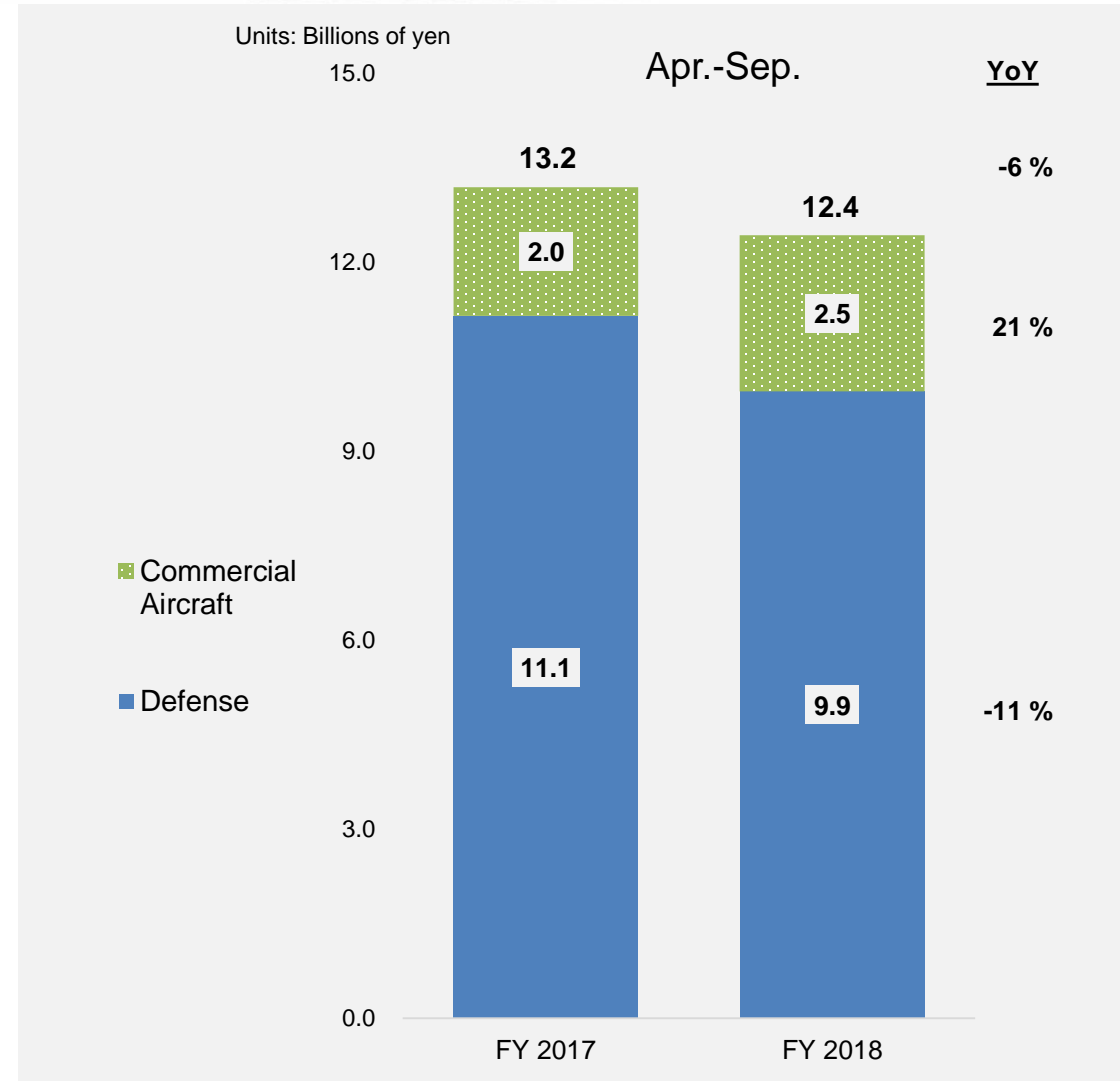
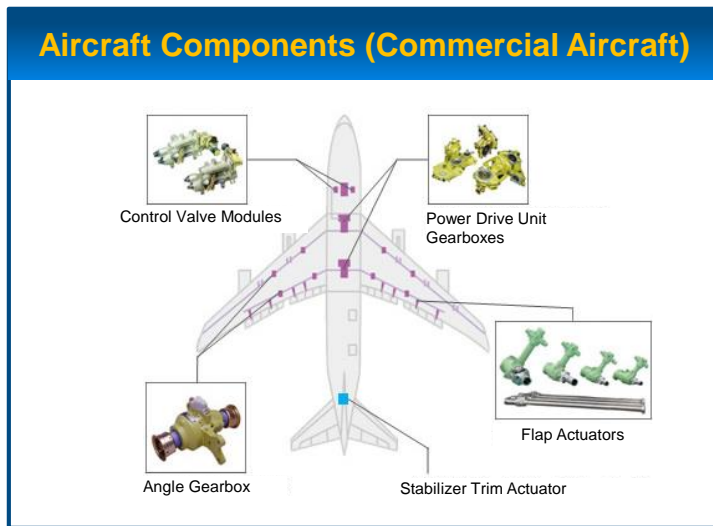
Industrial Machinery Net Sales by Region



YoY	
Total:	11 %
Japan:	13 %
Total Outside Japan:	9 %
Americas:	11 %
Europe:	-7 %
China:	29 %
Other Asian Countries:	-27 %

Aircraft Equipment Net Sales by Sub-Segment



- » **-6 %:** **Aircraft Equipment Net Sales**
Sales decreased for the defense business in Japan, in reaction to the previous year, but expanded for Boeing and other commercial aircraft components.
- » **-11 %:** **Defense Business**
Sales decreased, year-on-year, in reaction to the batch delivery of maritime patrol aircraft components in the previous year and due to other factors.
- » **+21 %:** **Commercial Aircraft Business**
Sales expanded for Boeing and other passenger aircraft components, mainly for small and medium size aircraft.



Business Environment Outlook and Trends

The global economy is predicted to grow 3.7 % in 2018 and 2019 (according to IMF's World Economic Outlook, October 2018, which was adjusted downward 0.2 points from the previous prediction in July). As destabilizing factors strengthen, such as trade friction and currency and interest rate fluctuations, there are expanding imbalances between regions and countries.

Note: The values for countries and regions in the left column of the table below are IMF estimated 2018 GDP growth rates published in October 2018. The increase/decrease versus the previous forecast in July 2018 is indicated in parentheses.

 <p>Japan 1.1 % (+0.1 pt)</p>	<p>Private sector investment in capital equipment seems to be decelerating, but we will focus efforts on expanding sales of new mass spectrometer products, including quadrupole time-of-flight mass spectrometers for food safety and gas chromatograph mass spectrometers for chemicals. We will also focus efforts on targeting demand for materials, automotive, etc.</p> <p>Risks: Instability of international relations in East Asian regions</p>
 <p>United States 2.9 % (±0.0 pt)</p>	<p>Due to strong private sector demand and also large-scale government fiscal stimulus measures, favorable conditions are expected to continue. We will focus efforts on expanding sales of new mass spectrometer products, including quadrupole time-of-flight mass spectrometers for biopharmaceuticals and gas chromatograph mass spectrometers for chemicals.</p> <p>Risks: Strengthening protectionist policies and decreasing corporate investment inclination due to stronger dollar and higher interest rates</p>
 <p>Euro Area 2.0 % (-0.2 pt)</p>	<p>Economic activities of major Western countries are expected to weaken, but we will strengthen deployment of gas chromatograph mass spectrometers for residual pesticide analysis, demand for which is expected to remain stable, and we will expand the reagent business with Alsachim, the French reagent company acquired by Shimadzu.</p> <p>Risks: Increasing political uncertainty in certain countries and emergence of immigrant problems</p>
 <p>China 6.6 % (±0 %)</p>	<p>As investment aimed at increasing the sophistication level of industries is expected to increase, we will strive to develop additional demand in petrochemical and automotive fields, satisfy demand for surface water and other environmental measuring applications, and deploy mass spectrometers in clinical medicine fields, which are predicted to expand.</p> <p>Risks: Impacts from U.S.-China trade friction and stronger financial regulations</p>
 <p>ASEAN 5.3 % (±0.0 %) India 7.3 % (-0.1 %)</p>	<p>Though a drop in currency value and reorganization of financial institutions are expected to impact results, we will satisfy demand for generic drugs in India due to stronger FDA regulations and other factors, and we will strengthen efforts to satisfy demand in electrical/electronic and automotive fields.</p> <p>Risks: Expanded impact of currency devaluation in newly emerging economies</p>

New Product Releases—A. Analytical & Measuring Instruments: Deployed New Products, Mainly by Expanding Mass Spectrometer Line

- **New Products:** Developed new demand in new fields by increasing high-end products with higher added value.
 - High-resolution MS and LCMS
- **Network Systems:** Developed new systems that help improve the reliability of analytical data.
 - LabSolutions i-Qlinks
- **Aftermarket:** Expanded line of LC columns, with high value added models, for example, and released new reagents.

High-Resolution MS



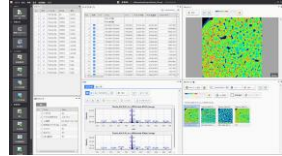
LCMS-9030
Released Q-TOF that offers high accuracy and high stability. Deploy for biopharmaceuticals, etc.
Jun. 2018

Three GCMS Models



GCMS NX Series
Offers high accuracy, high resolution, and outstanding operability. Released three models to deploy widely.
Sep. 2018

MS Analysis Software



IMAGEREVEAL MS
Easily extracts necessary information from massive quantities of MS imaging data.
Aug. 2018


Beta-Amyloid Contract Analysis



Started contract analysis for predicting amyloid accumulation levels in the brain. Aim to introduce for basic research of therapeutic drugs and early preventive methods, etc.
Aug. 2018


Network System: LabSolutions i-Qlinks

- Network system with LIMS functionality for integrated management of laboratory testing operations that improves the reliability of test data



Aftermarket Business: LabTotal

- Significantly expanded line of LC columns (to 3400 items within 2018), mainly by offering high value added models, such as for basic compounds.
- Developed immunosuppressant analysis kit with Alsachim (French company acquired in 2017), released the kit in Europe and Japan, and even applied for FDA approval in the United States.



New Product Releases—B. Medical Systems and Industrial Machinery: Steadily Expanded Product Lines

- **New Products:** Expanded product line and developed new field. → Industrial Machinery TMPs and sputtering systems
- **Existing Products:** Captured market share and developed new application fields. → Medical Systems mobile systems and angiography systems
- **Aftermarket Business:** Expanded maintenance services
(such as for industrial machinery TMPs or 24 hr/365 days per year response for medical systems).

Medical—Angiography Systems



Trinias unity edition
New functionality that displays sharp image of only blood vessels in image of entire lower extremities. Contribute to safer and more efficient catheterization procedures.
Oct. 2018

Medical—Mobile X-Ray Systems



MobileDaRt MX8 Version
Digital radiography system with state-of-the-art image processing technology that features a telescoping support column that results in a smaller size and improved maneuverability.
Apr. 2018

Industrial Machinery—TMPs




TMP-5305 Series
Turbomolecular pump with smaller power supply unit designed for semiconductor dry etching systems.
Mar. 2018

Industrial Machinery—Sputtering Systems



UHSP-OP2060
High-speed film deposition system ideal for mass production of automotive mirrors with head-up display (HUD) functionality, which are expected to become more common in the future.
Jun. 2018

2018 National Invention Award
The Elmammo Avant Class breast PET system was recognized for minimizing the physical and psychological burden during breast cancer examinations.



2018 Frost & Sullivan New Product Innovation Award for Fluorescence Surgical Imaging For Breast Cancer
The outstanding characteristics of the LIGHTVISION system were recognized for overall breast care applications, including for minimally invasive surgical procedures, breast reconstruction, and treating complications, for example.



Earnings Forecast

- No changes to the initially reported forecast
- Operating income is projected to reach the medium-term management plan target level one year ahead of schedule.
- We intend to achieve a sixth consecutive year of record results.

Units: Billions of yen, excluding EPS and percentages

	Full-Year		YoY Increase			
	FY 2018 Plan	FY 2017	Yen Basis		Local Currency Basis	
Net Sales	390.0	376.5	13.5	3.6%	16.9	4.5%
Operating Income	45.0	42.8	2.2	5.1%	3.3	7.7%
Operating Margin	11.5%	11.4%	0.1 pt			
Ordinary Income	44.0	41.9	2.1	5.1%		
Profit Attributable to Owners of Parent	32.0	29.8	2.2	7.2%		
EPS	¥108.63	¥101.26	¥7.37	7.3%		
First Half Average Foreign Exchange Rate	US\$	¥107.66	¥110.91	-3.25	-2.9%	
	€	¥129.94	¥129.75	0.19	0.1%	

Exchange Rate Effect		
Net Sales	-3.4	
Operating Income	-1.1	
R&D Expenses	17.5	15.5
Capital Expenditures	23.0	17.2
Depreciation and Amortization	11.7	10.6

• Sensitivity to Exchange Rates: US\$: 1.2 billion yen for net sales and 0.4 billion yen for operating income; €: 0.2 billion yen for net sales and 0.07 billion yen for operating income

Earnings Forecast by Business Segment

- Increased sales and income are predicted for Analytical & Measuring Instruments, Medical Systems, and Industrial Machinery segments.
- Increased profitability is planned for each segment.

Units: Billions of yen		Full-Year				YoY Increase/Decrease		
		FY 2018 Plan		FY 2017				
Analytical & Measuring Instruments	Net Sales	241.0	OPM	231.6	OPM	9.4	4.1%	OPM
	Operating Income	38.8	16.1%	37.0	16.0%	1.8	4.7%	0.1 pt
Medical Systems	Net Sales	69.5	OPM	65.9	OPM	3.6	5.4%	OPM
	Operating Income	3.2	4.6 %	2.7	4.1%	0.5	18.5%	0.5 pt
Aircraft Equipment	Net Sales	26.5	OPM	27.6	OPM	-1.1	-4.1%	OPM
	Operating Income	0.8	3.0 %	0.5	1.7%	0.3	67.0%	1.3 pt
Industrial Machinery	Net Sales	46.5	OPM	44.2	OPM	2.3	5.2%	OPM
	Operating Income	4.4	9.5 %	4.1	9.2%	0.3	7.7%	0.3 pt
Other	Net Sales	6.5	OPM	7.2	OPM	-0.7	-10.0%	OPM
	Operating Income	0.8	12.3 %	0.9	10.1%	-0.1	-10.2%	2.2 pt
Operating Income Adjustments		-3.0	—	-2.4	—	-0.6	—	
Total	Net Sales	390.0	OPM	376.5	OPM	13.5	3.6%	OPM
	Operating Income	45.0	11.5 %	42.8	11.4%	2.2	5.1%	0.1 pt

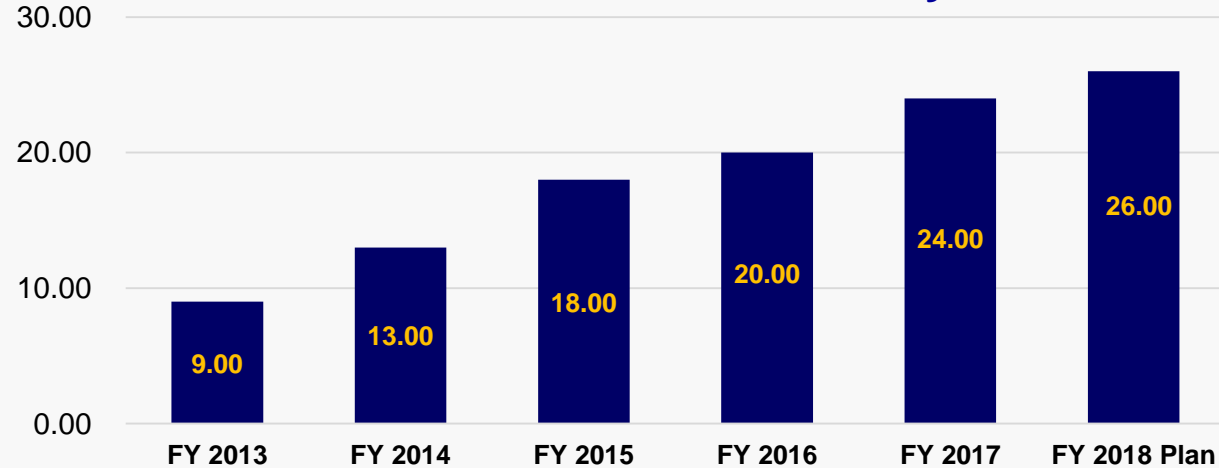
Cash Dividend

- We will provide steady returns to shareholders, in balance with aggressive R&D and other investment for achieving growth.
- The interim dividend payment of 13 yen per share was two yen higher than the previous year.
- The planned year-end dividend is 13 yen per share, which is the same as the previous year.

	FY 2018		FY 2017		YoY
	First Half	Mar. 2019 (Plan)	First Half	Mar. 2018	Full-Year
Dividend per Share	¥13.00	¥13.00	¥11.00	¥13.00	¥2.00
Payout Ratio	23.9%		23.7%		0.2 point increase

Units: Yen
30.00

Full-Year Cash Dividend Payments



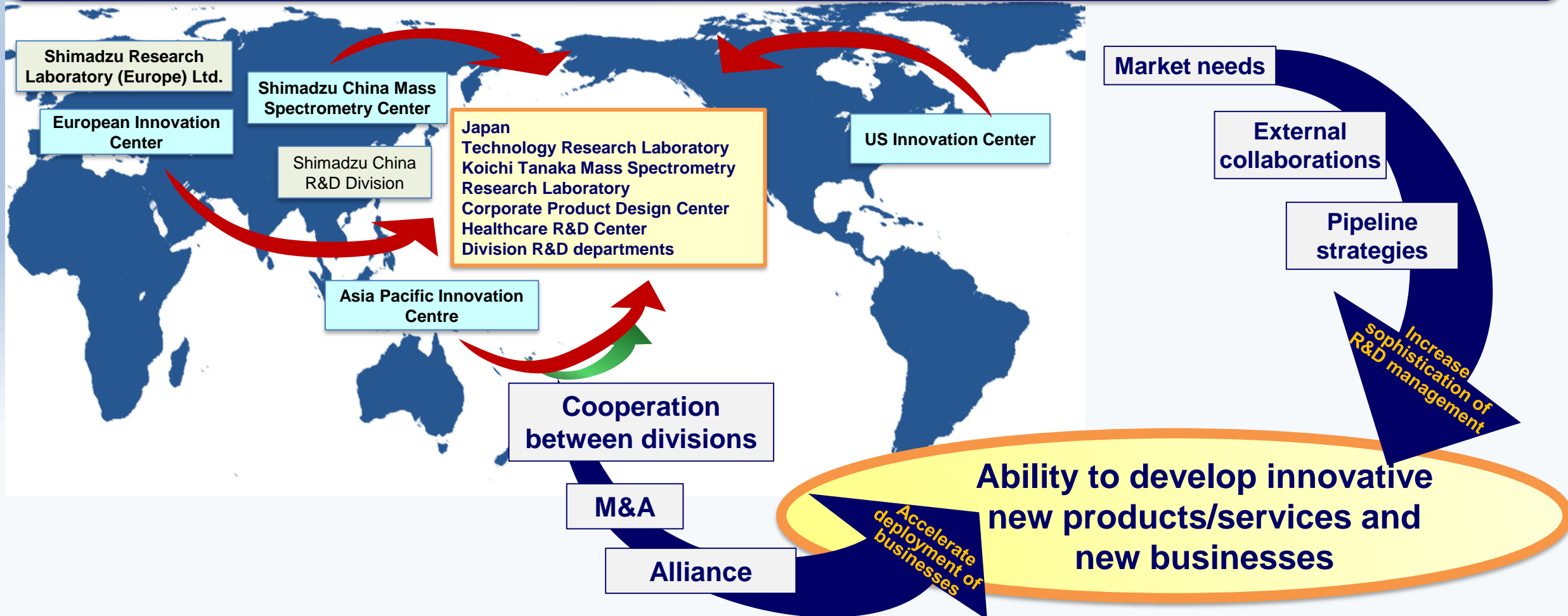
Key Business Strategies

1. **Developing innovative new products/services and new businesses**
2. **Expanding R&D**
 - A. Promoting R&D and investment in capital equipment according to medium-term management plan
 - B. Deploying R&D globally
 - C. Promoting advanced healthcare
3. **Contributing to SDGs through business activities**
 - A. Environmental measurement fields
 - B. Society fields

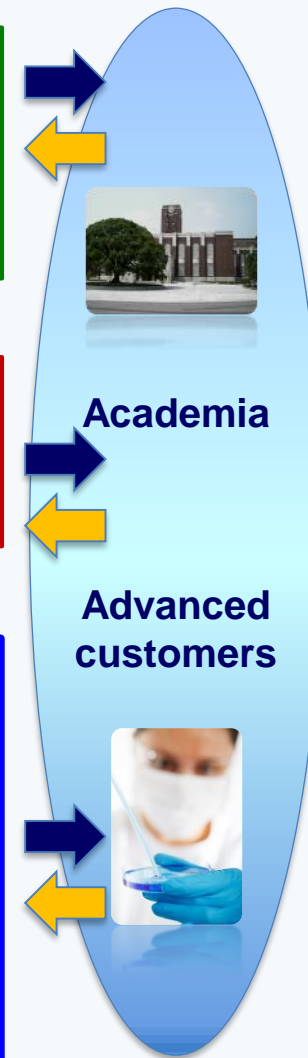
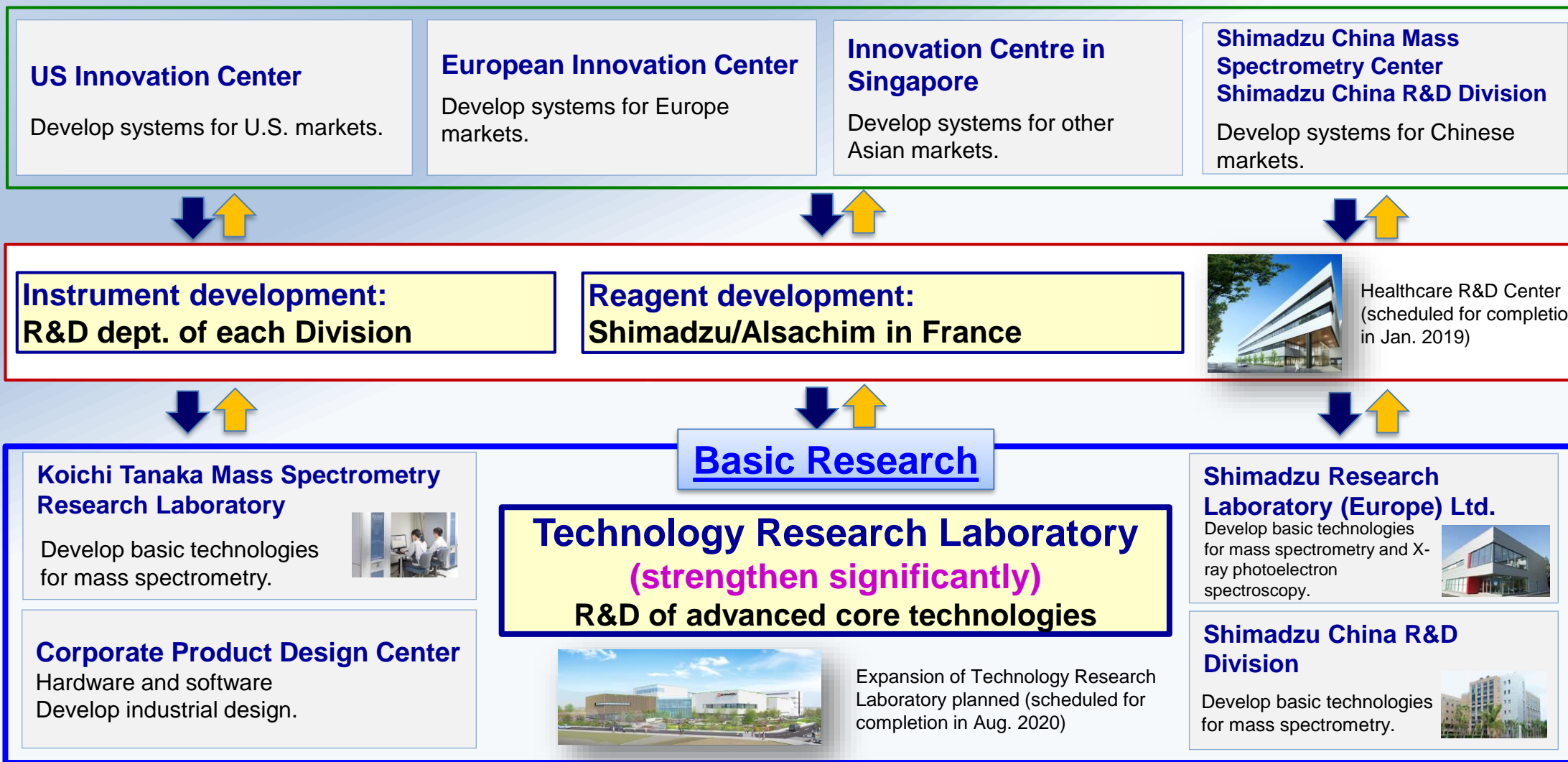


1. Developing Innovative New Products/Services and New Businesses

- Engage in raising our ability to develop innovative new products/services and businesses to new level.
- Strengthen and expand R&D, which is central to that ability.



2. Expanding R&D—A. Deploying R&D Globally



2. Expanding R&D—B. Promoting R&D and Investment in Capital Equipment According to Medium-Term Management Plan

Implementation and Direction of R&D

Accelerate joint development with advanced research institutions, mainly in the healthcare field.

Invest in R&D according to medium-term management plan, which specifies 53.0 billion yen in R&D expenses during the three years.

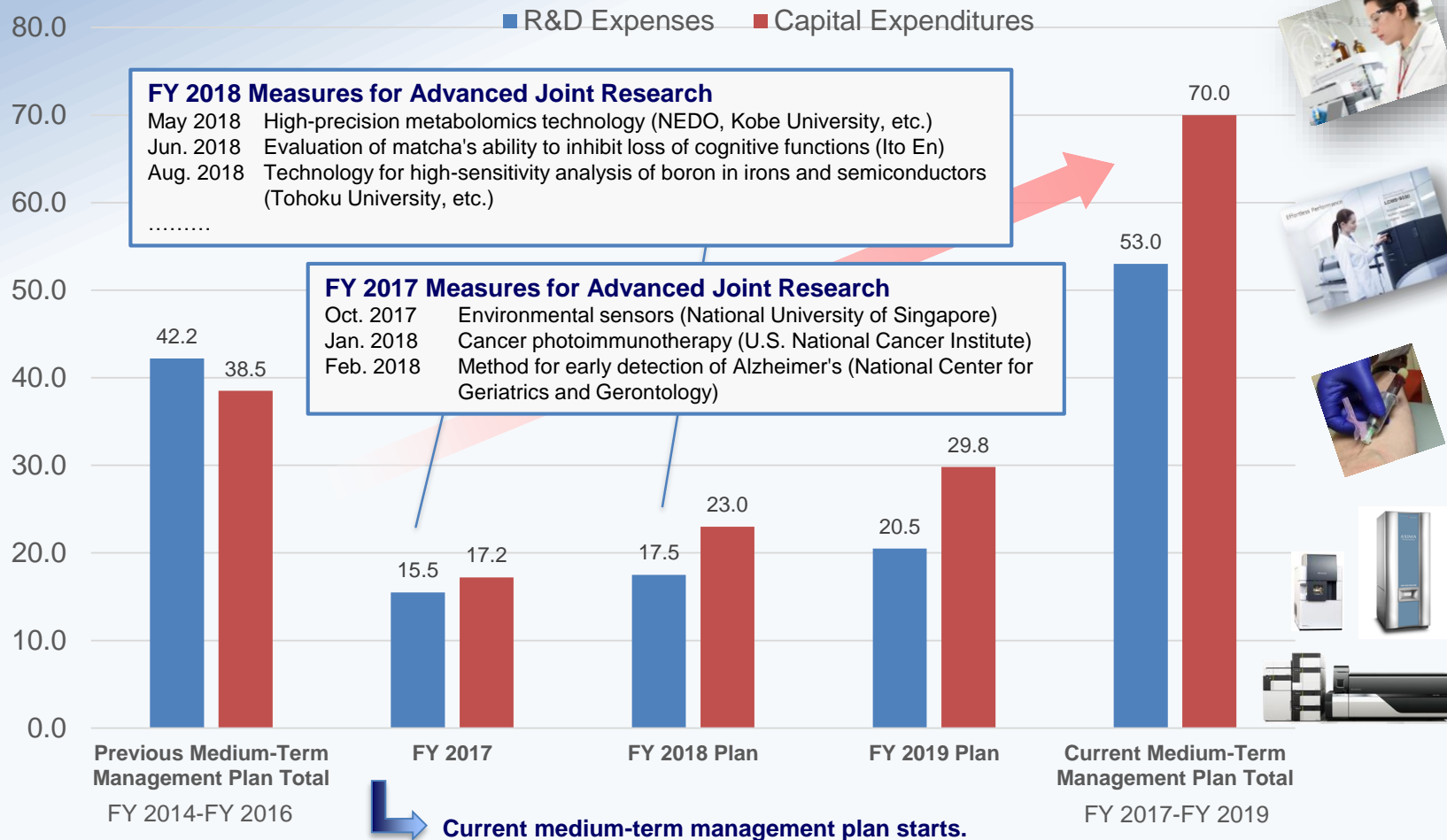
Invest in preparing environment/equipment for R&D, such as at the Healthcare R&D Center and Technology Research Laboratory.

Create innovative new products and ensure they result in practical new applications for analysis, diagnostics, treatment, and so on.

Investment in Capital Equipment

- New Healthcare R&D Center established
- Technology Research Laboratory expanded
- Shimane Shimadzu expanded (medical systems production)
- Shimadzu Precision Technology expanded (Industrial Machinery TMP production)
- Enterprise resource planning system improved

Units: Billions of yen



2. Expanding R&D—C. Promoting Advanced Healthcare (Overview)









Contribute to solving challenges of society by promoting early detection, diagnosis, and treatment of major diseases.

Early detection
Mass spectrometry

Diagnosis
PET imaging and mass spectrometry









Treatment support
X-ray imaging, near-infrared spectroscopy, and mass spectrometry

Prognosis management

 <p>Cancer</p>	<p>MS: Cancer screening Colon cancer, breast cancer, pancreatic cancer, liver cancer, stomach cancer, and lung cancer</p>	<p>PET: Diagnostic imaging Breast cancer </p> <p>MS: Diagnostic support during surgery Liver cancer</p>	<p>Cancer photoimmunotherapy support Therapeutic effect measurement </p>	<p>MS: Follow-up examination Presence of cancer recurrence/metastasis</p>
 <p>Lifestyle Diseases</p>	<p>MS: Disease screening Non-alcoholic fatty liver disease Diabetic nephropathy</p>	<p>Strong line of mass spectrometers models</p> 	<p>Primary aldosteronism treatment support High blood pressure </p>	<p>MS: Medication management Organ transplants and autoimmune disorders</p>
 <p>Psychiatric Disorders</p>	<p>MS: Dementia screening Mild cognitive impairment (MCI) Alzheimer's Depression</p>		<p>IR: Rehabilitation therapeutic effect measurement Mild cognitive impairment (MCI) MS: Drug discovery research support Beta-amyloid screening</p> 	
<p>Comprehensive health management service for extending healthy life expectancy Using smart devices to provide information about health, diathetic risks, and functionally-enhanced foods</p>				

2. Expanding R&D—C. Promoting Advanced Healthcare (Progress)


- Jointly develop early screening system for cancer, Alzheimer's, etc., based mainly on mass spectrometry technology. Launched business in October 2018.
- Currently jointly developing cancer treatment and other systems based on integrating Analytical & Measuring Instruments and Medical Systems technologies, such as mass spectrometry, diagnostic imaging, and near infrared technologies.
- Expand the reagent business, mainly based on Alsachim in France, which was acquired in April 2017.

			FY 2017	FY 2018	FY 2019
Biomarker Examinations	Cancer	Commercialize colon cancer screening business			
	Lifestyle Diseases	Research non-alcoholic fatty liver disease			
	Psychiatric Disorders	Commercialize contract analysis business for dementia-related beta-amyloid Mild cognitive impairment diagnostic business (invest in MCBI) Research effectiveness of catechins for inhibiting dementia (jointly with Ito En)			
Systems That Integrate Analytical and Medical Technologies	Cancer Treatment Systems	Support photoimmunotherapy research (U.S. National Cancer Institute)			
	Treatment Systems	Primary aldosteronism treatment support (Tohoku University)			
Reagents and Consumables Businesses	Monitoring stable isotope/drug concentration levels in blood (French Alsachim acquisition)				
	Consumables				
Other	MALDI-MS microorganism identification, SNPs data analysis, etc.				

3. Contributing to SDGs Through Business Activities



SDGs to Which Shimadzu Businesses Contribute Significantly






GOOD HEALTH AND WELL-BEING

Advanced Healthcare Measures
 Apply sophisticated mass spectrometry technology for early detection of serious diseases, such as cancers, lifestyle diseases, and Alzheimer's.
 Also deploy solutions for monitoring immunosuppressants, anticonvulsants, and other drugs (reagents) in the blood.








CLIMATE ACTION

Gas Chromatograph Mass Spectrometers
 Easily analyze **phthalate esters**, the use of which is restricted in food packaging and electronic/electrical goods.

Infrared Spectrophotometers
 Contribute to reusing **waste plastic materials** by sorting them instantaneously and on line by type.

3. Contributing to SDGs Through Business Activities

—A. Environmental Measurement Fields

Using Analytical and Measuring Technologies to Contribute to Global Environmental Conservation



Target 6.3

- Measure and monitor environmental pollutants in water.
- Measure and monitor environmental pollutants and endocrine disruptors in water, air, and soil.
- Manage wastewater (devices to monitor metal impurities in cleaning processes, such as during semiconductor manufacturing).



Target 11.6

- Measure and monitor for environmental conservation and regulatory compliance.
- Compliance with RoHS regulations
- Support development of new environmentally-friendly materials.



Target 12.4

- Measure and monitor environmental pollutants and endocrine disruptors in water, air, and soil.
- Comply with RoHS regulations for all parts and materials used in products.



Online Total Nitrogen and Total Phosphorus Analyzer



Gas Chromatograph Mass Spectrometer



Liquid Chromatograph Mass Spectrometer

3. Contributing to SDGs Through Business Activities—B. Society Fields

Using Analytical, Measuring, and Medical Technologies to Contribute to Achieving Preventive Medicine, and Improving Food Safety and Diagnostics

3 GOOD HEALTH AND WELL-BEING



Target 3.2

- Contribute to early diagnosis of congenital abnormalities and disease in newborns.
- Supply diagnostic equipment for newborns.

Target 3.4

- Improve the accuracy of diagnosing cancer, cardiovascular diseases, and so on and provide treatment support.
- Provide support for therapeutic drug development.
- Metabolite analysis for preventive medicine
- Support the development of functionally-enhanced foods.

Target 3.5

- Provide drug abuse prevention and treatment.

Target 3.9

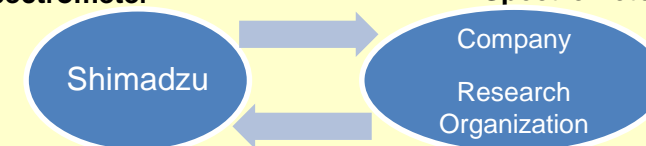
- Detect hazardous chemicals in food and the environment.



Liquid Chromatograph Mass Spectrometer



Gas Chromatograph Mass Spectrometer



Contract analysis service, intended for R&D fields, that predicts amyloid accumulations in the brain based on blood tests



Elmammo Dedicated Breast PET System



Trinias Angiography System



Near-Infrared Imaging System



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 that are based on information available when these materials were prepared and are subject to risks and uncertainties. Consequently, actual results may differ materially from the forecasts indicated above. Factors that may influence actual business performance include, but are not limited to, economic conditions within and outside Japan, changes in technologies in markets, and fluctuations in exchange rates.