



Ceaseless Creativity for a Sustainable World

November 5, 2019

SATO HOLDINGS CORPORATION

FY2019 1H Financial Results
(Six Months Ended September 30, 2019)

Securities Code: 6287

Summary

- **Consolidated sales fell short of the forecast while OI achieved its target. Both sales and OI increased YoY.**
 - **Overseas sales and OI fell short of the forecast. Sales remained flat while OI decreased YoY, but both increased excluding adverse FX impact.**
 - **In Japan, sales and OI achieved the forecast as well as increasing YoY.**
- **Impact from overseas strategies in line with our Medium-term Management Plan is yet to be seen.**
- **Extraordinary income was recorded from gain on sale of fixed assets overseas.**

Apr-Sep Consolidated Forecasts and Results

(Millions of JPY)

	Results	Forecast	VS Forecast
Net Sales	57,875	58,700	98.6%
Operating Income	3,542	3,500	101.2%
Ordinary Income	3,237	3,400	95.2%
Profit attributable to owners of parent	2,880	2,000	144.0%

Sales and OI by Business Segment

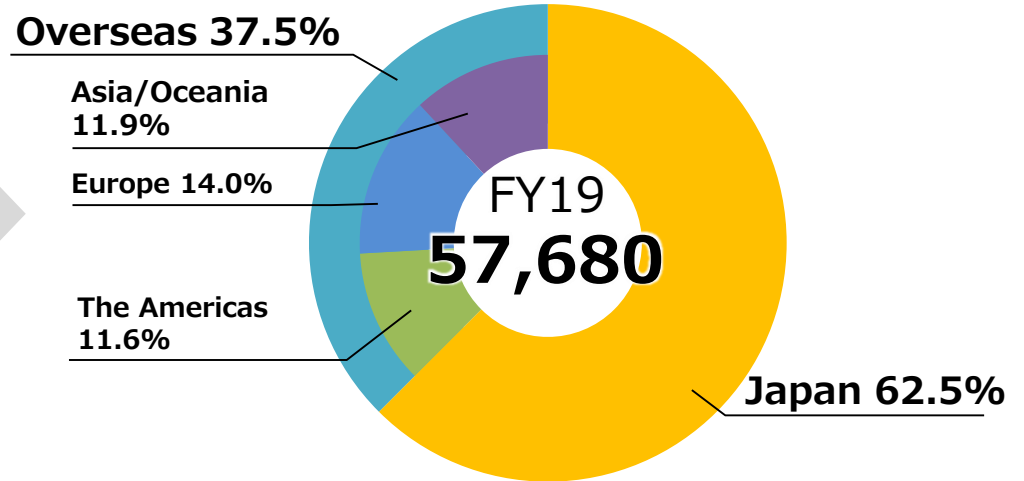
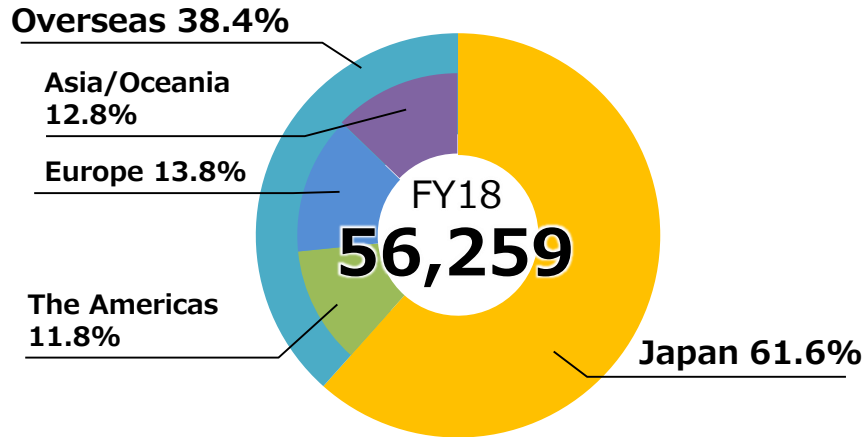
(Millions of JPY)

		FY2019	FY2018	YoY	excl. FX impact	
Auto-ID Solutions business	Total Sales	57,680	56,259	102.5%	104.6%	
	Operating Income	4,239	4,051	104.6%	106.4%	
	Overseas	Total Sales	21,607	21,597	100.0%	105.5%
		Operating Income	1,155	1,220	94.7%	103.3%
	Japan	Total Sales	36,073	34,661	104.1%	104.1%
		Operating Income	3,083	2,831	108.9%	107.7%
IDP business	Total Sales	194	230	84.5%	90.3%	
	Operating Income	-737	-676	-	-	
Consolidated (incl. eliminations)	Total Sales	57,875	56,489	102.5%	104.6%	
	Operating Income	3,542	3,343	105.9%	106.5%	

Sales and OI by Region

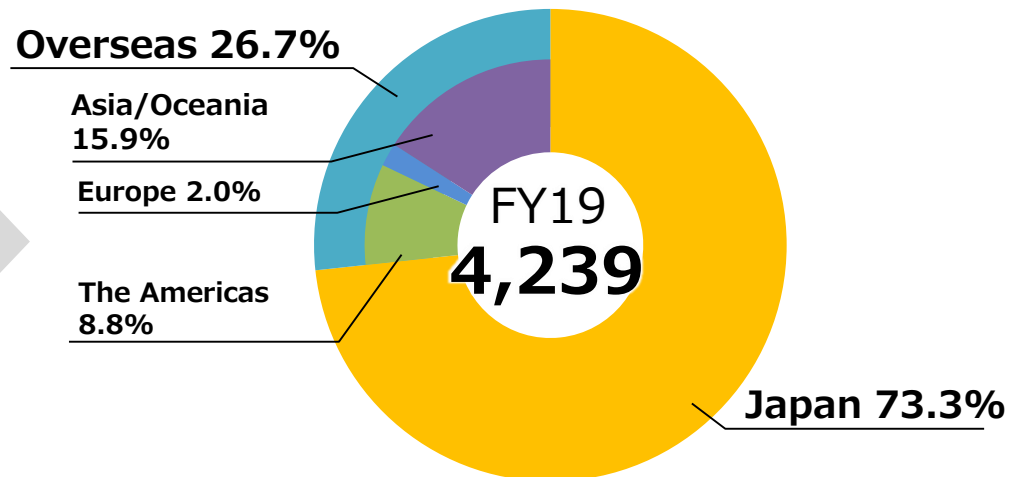
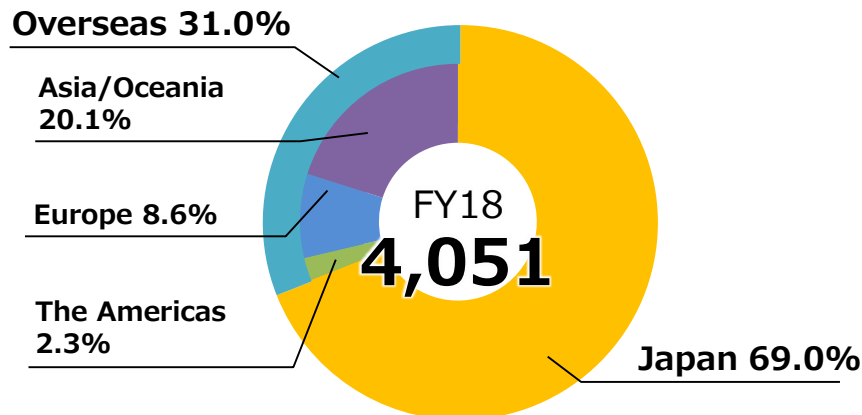
(Millions of JPY)

Sales



Operating Income

*Ratio excludes eliminations.

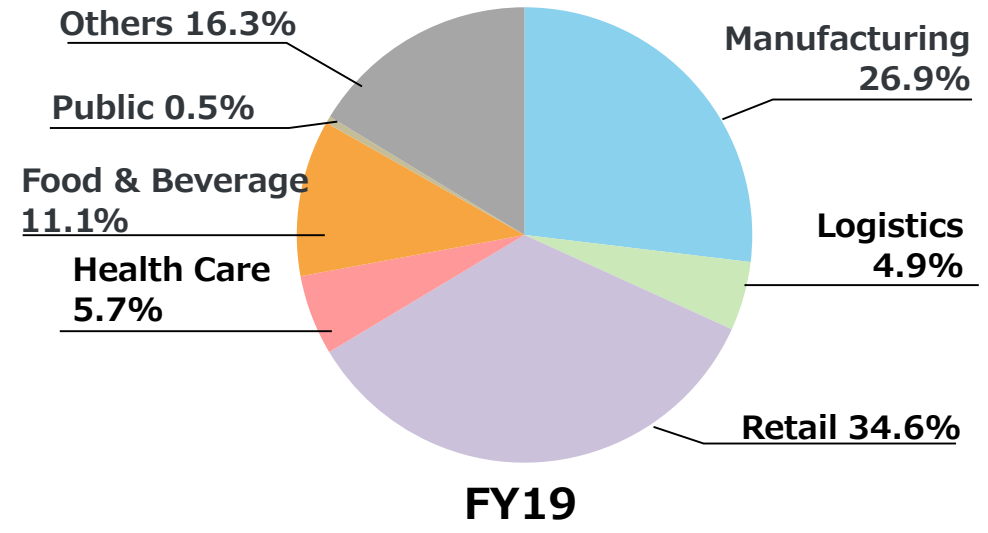
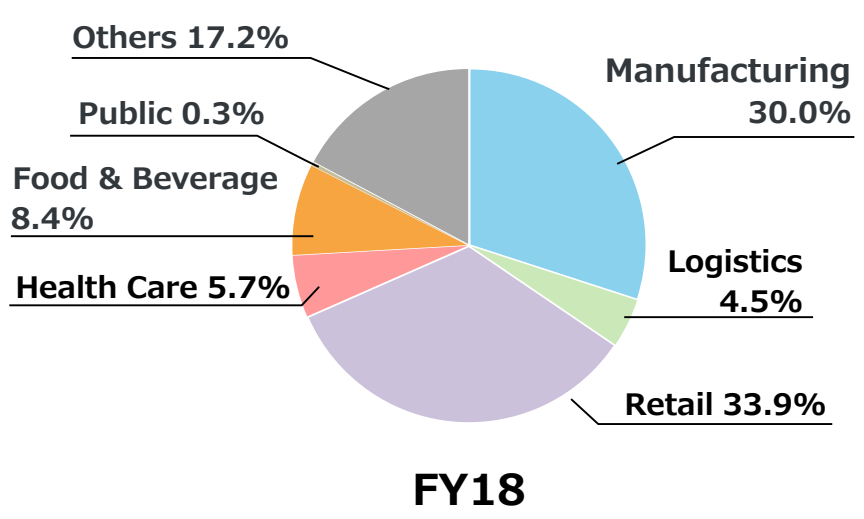


4 OI Ratio : Japan : 8.2%, Overseas : 5.7%

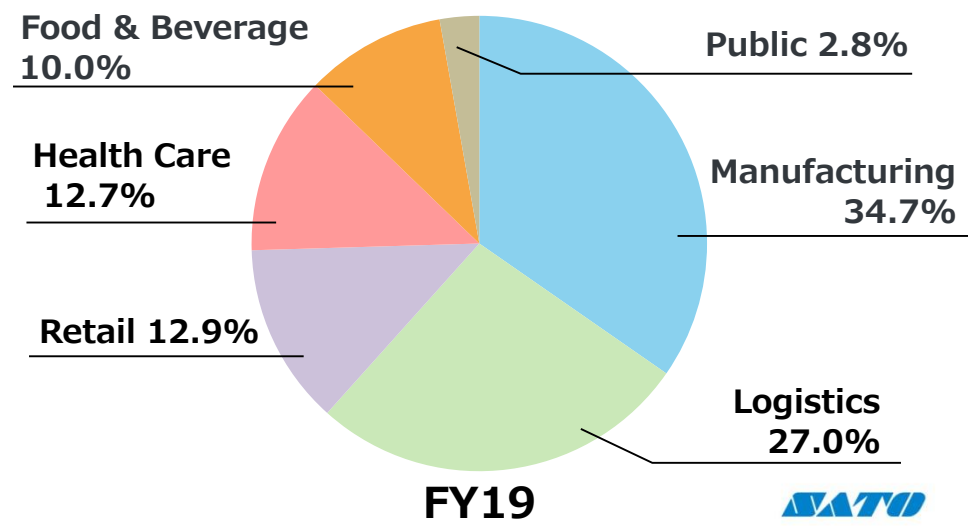
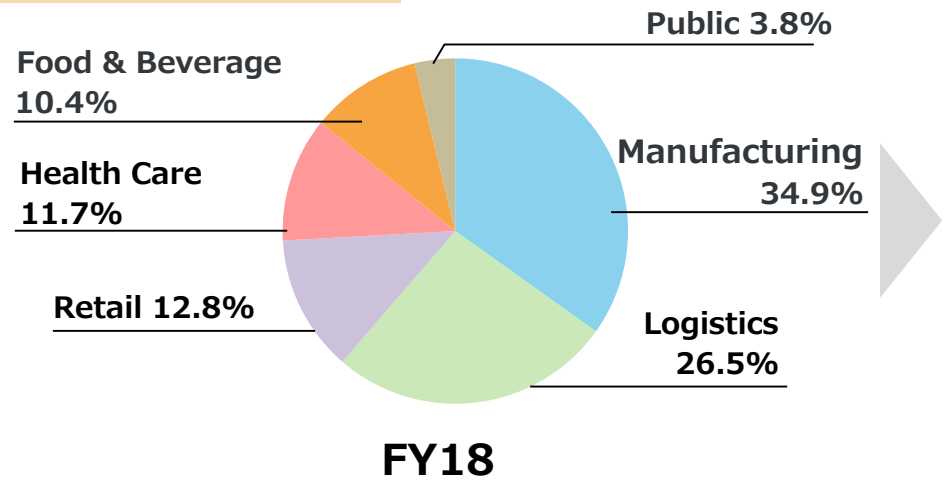
OI Ratio: Japan : 8.5%, Overseas : 5.3%

Sales by Vertical

Overseas * Main sales subsidiaries only. Factories & primary label companies not included.



Japan



Consolidated Results

(Millions of JPY)

	FY2019	FY2018	Change	YoY
Net Sales	57,875	56,489	+1,385	102.5%
Operating Income	3,542	3,343	+198	105.9%
Operating Income %	6.1%	5.9%	+0.2pt	-
Ordinary Income	3,237	3,190	+46	101.4%
Profit attributable to owners of parent *1	2,880	1,919	+960	150.0%
Effective Tax Rate*2	26.7%	39.3%	-12.7pt	
EBITDA*3	6,488	6,096	+391	106.4%

Average exchange rates for Apr-Sep FY19: JPY 108.60 /USD, JPY 121.40 /EUR, Apr-Sep FY18: JPY 110.26 /USD, JPY 129.78 /EUR

FX sensitivity for FY19: JPY +423 million in sales and JPY +5 million in OI for +1 JPY against USD and assuming all others move by the same ratio

*1 Profit attributable to owners of parent in Apr-Sep FY19 reflected extraordinary income from gain on sale of fixed assets overseas.

*2 Effective Tax Rate of Apr-Sep FY18 was high due mainly to adjustments related to reorganization of Japanese subsidiaries.

*3 EBITDA = Operating Income + Depreciation + Amortization

· Depreciation for Apr-Sep FY19: JPY 2,509 million

· Amortization for Apr-Sep FY19: JPY 436 million (incl. 150 mil. for DataLase)

Apr-Sep FY18: JPY 2,186 million

Apr-Sep FY18: JPY 566 million (incl. 312 mil. for DataLase)

Quarterly Consolidated Sales & OI

(Millions of JPY)

■ Sales — OI ●●● OI: Auto-ID Solutions Business only
(excl. IDP Business)

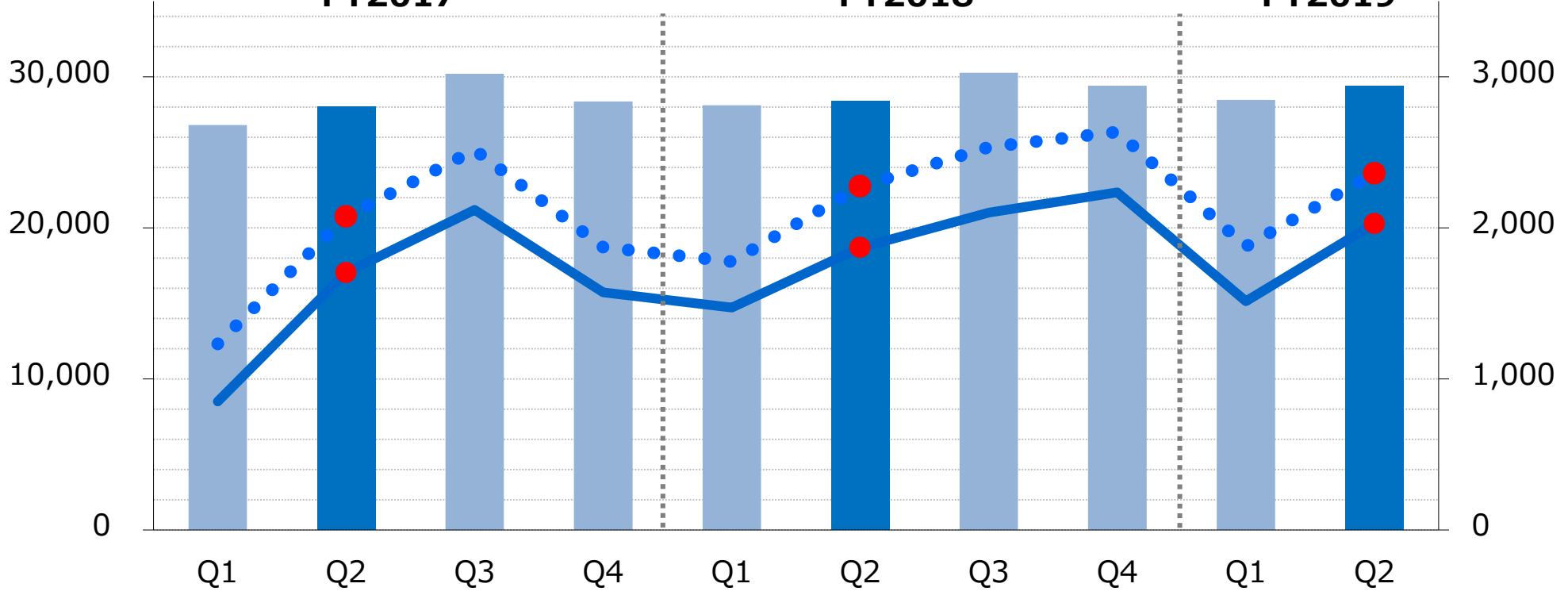
Sales

OI

FY2017

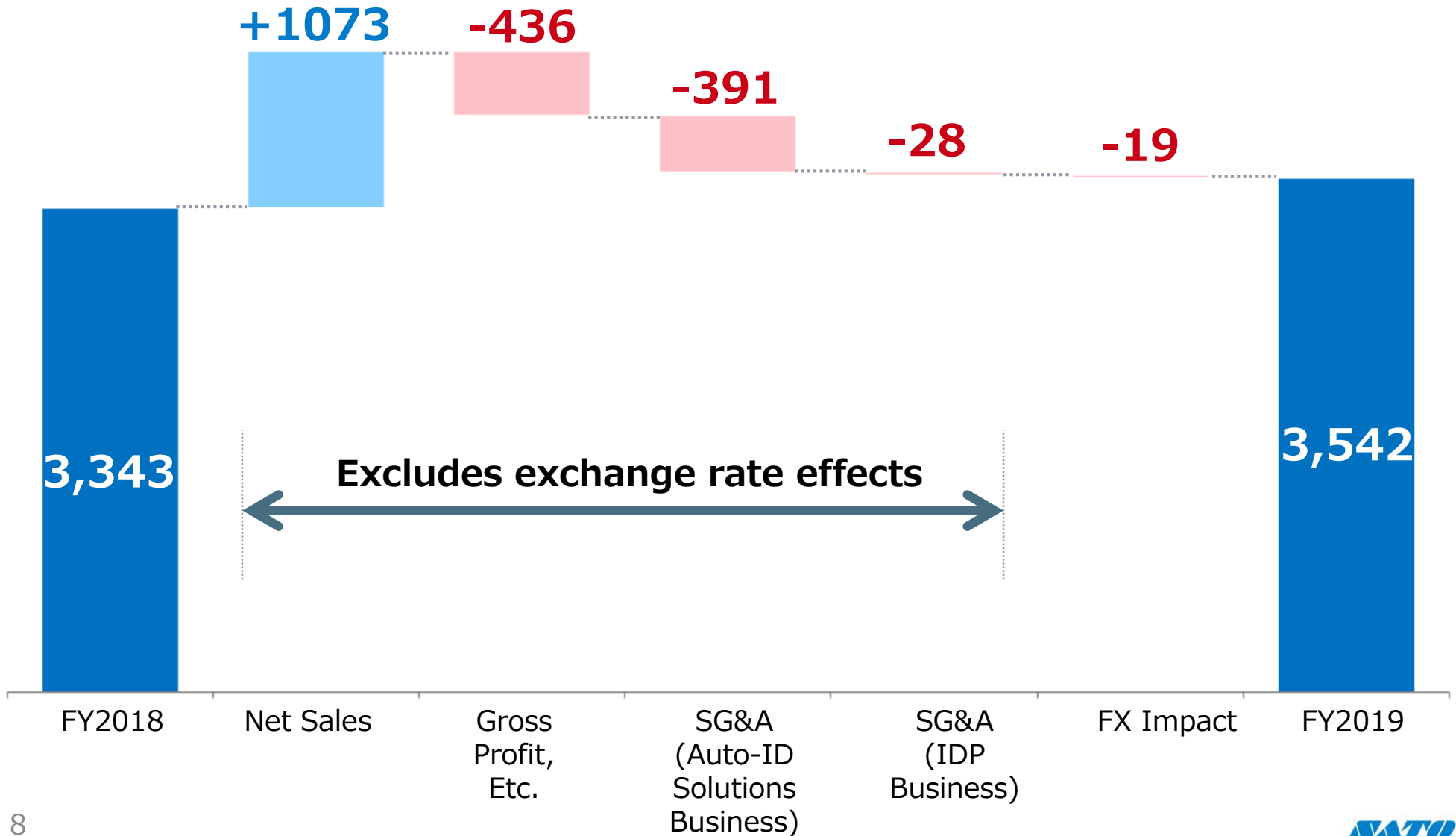
FY2018

FY2019



Major Gains/Losses in OI

(Millions of JPY)

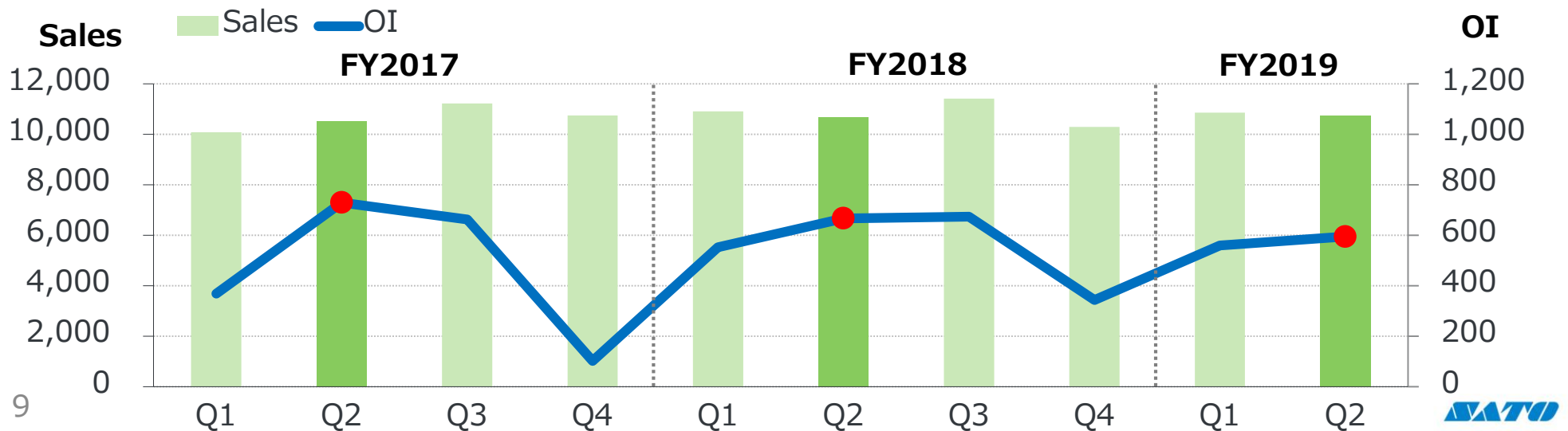


Overview

Sales remained flat while OI decreased YoY, but both increased, excluding adverse FX impact.

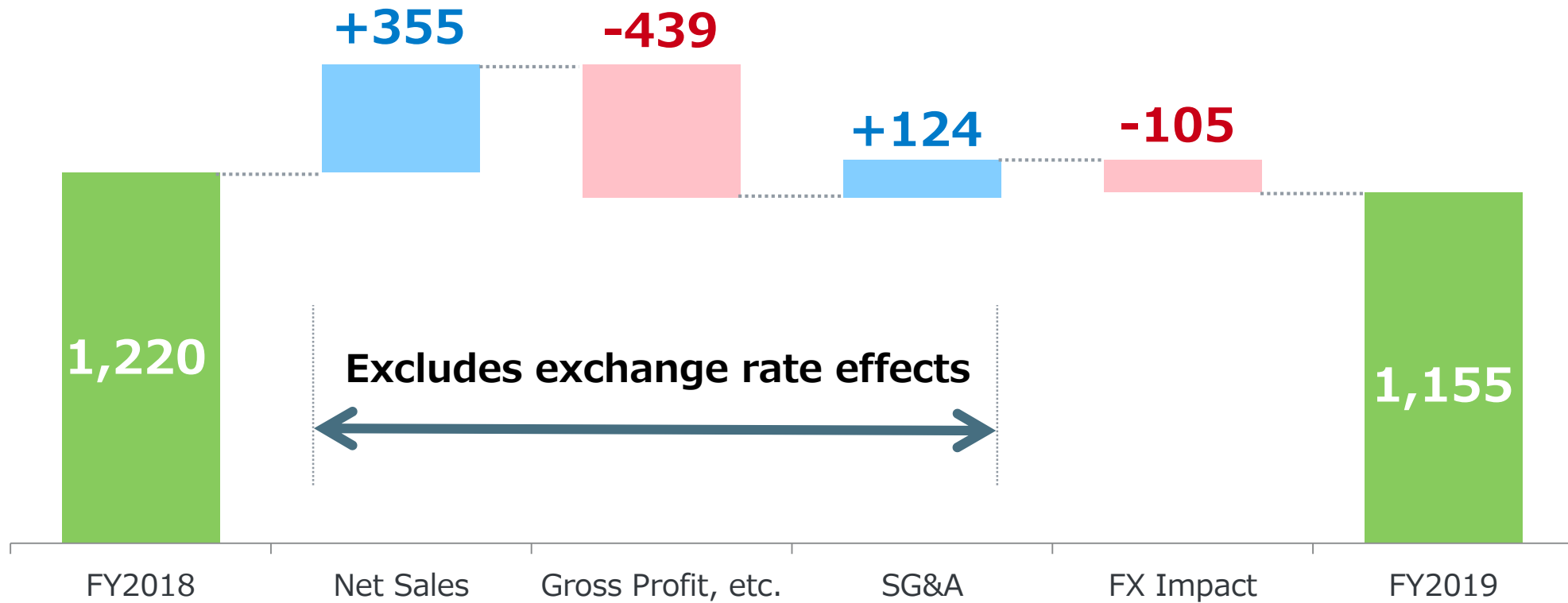
(Millions of JPY)

	FY2019	FY2018	Change	Change	
				YoY	excl. FX impact
Total Sales	21,607	21,597	+9	100.0%	105.5%
Gross Profit	7,506	8,057	-551	93.2%	-
Gross Profit %	34.7%	37.3%	-2.6pt	-	-
Operating Income	1,155	1,220	-65	94.7%	103.3%
Operating Income %	5.3%	5.7%	-0.3pt	-	-



Major Gains/Losses in OI

(Millions of JPY)



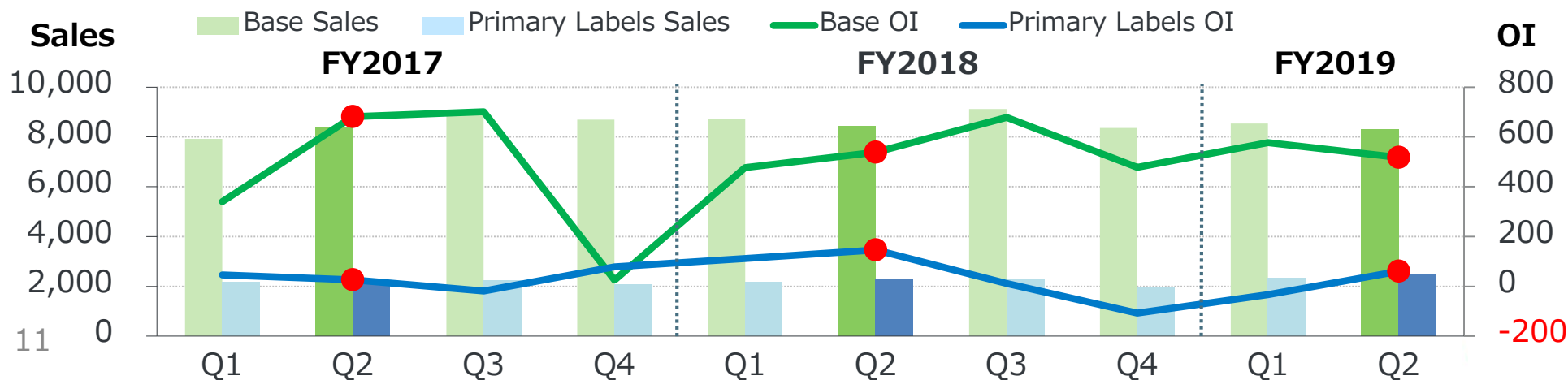
Breakdown by Business Segment

Base business: Sales in China-related business decreased YoY due to trade conflict with US. OI increased as loss-making US software development subsidiary was liquidated and the UK sales subsidiary turned profitable.

Primary Labels business: Sales increased thanks to contributions from Okil in Russia, while OI decreased due to higher raw materials costs at Okil as well as adverse FX impact. The business turned profitable in Q2.

(Millions of JPY)

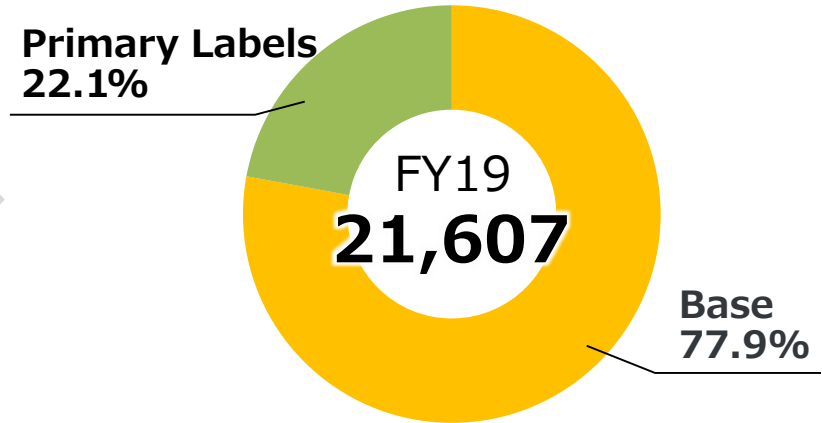
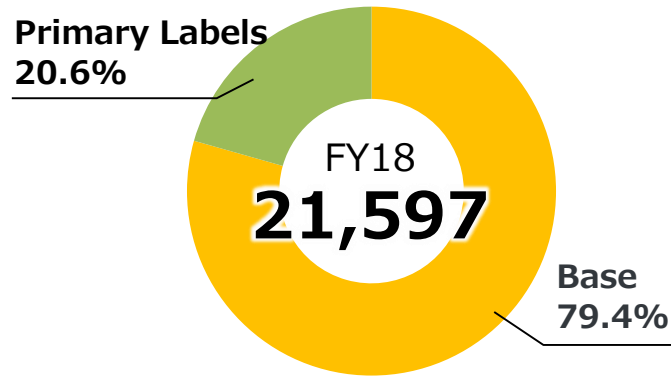
		FY2019	FY2018	Change	YoY	excl. FX impact
Base	Total Sales	16,825	17,152	-327	98.1%	102.6%
	Operating Income	1,095	1,015	+79	107.9%	112.2%
Primary Labels	Total Sales	4,782	4,444	+337	107.6%	116.8%
	Operating Income	27	259	-231	10.5%	34.2%
Eliminations	Operating Income	32	-54	+86	-	-



Breakdown of Sales and OI by Business Segment

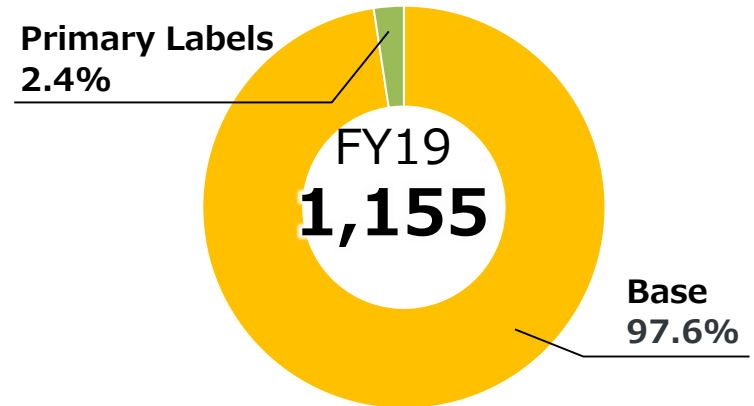
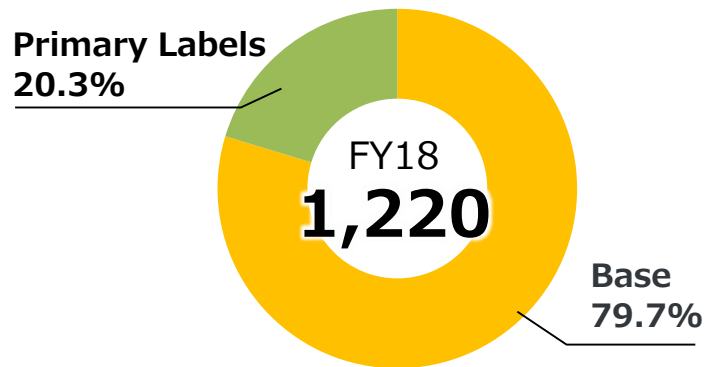
(Millions of JPY)

Sales



Operating Income

*Ratio excludes eliminations.



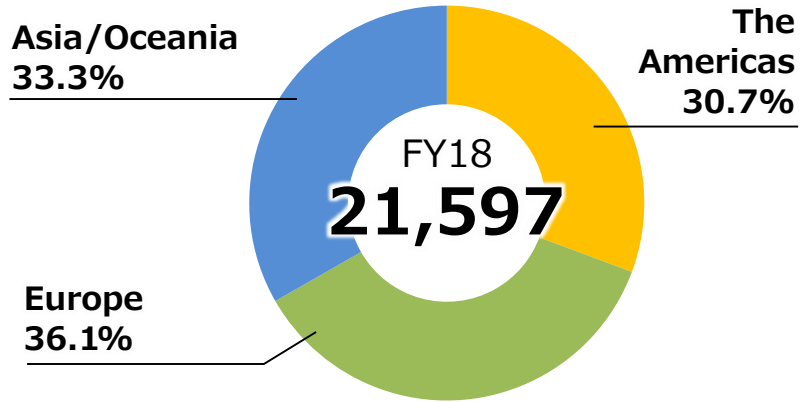
OI ratio: Base : 5.9%, Primary Labels : 5.8%

OI ratio: Base : 6.5%, Primary Labels : 0.6%

Breakdown of Sales and OI by Region

(Millions of JPY)

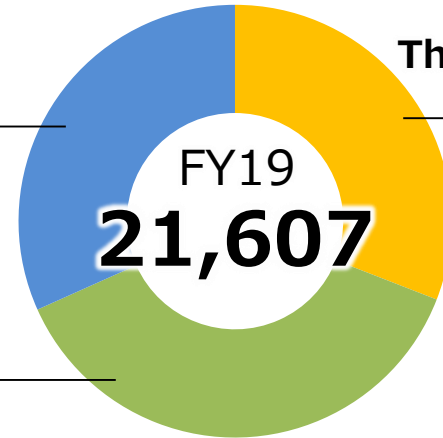
Sales



Asia/Oceania
31.7%

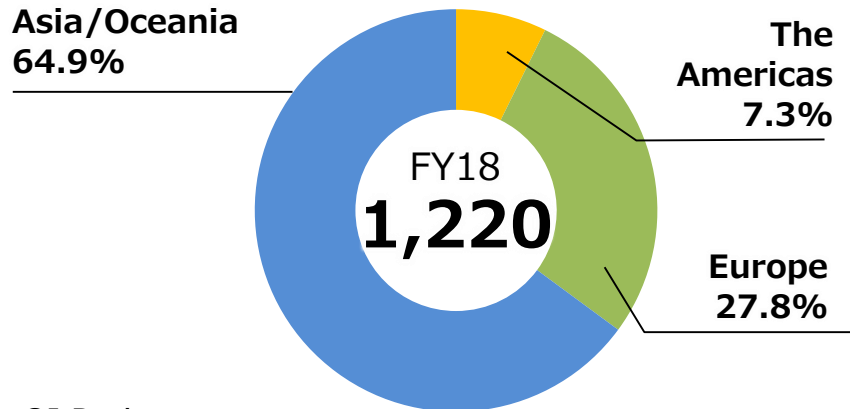
The Americas
30.9%

Europe
37.4%



Operating Income

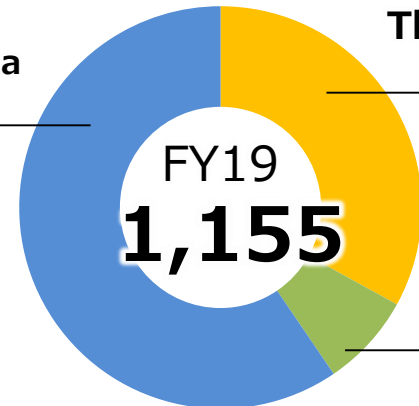
*Ratio excludes eliminations.



Asia/Oceania
59.5%

The Americas
33.0%

Europe
7.5%

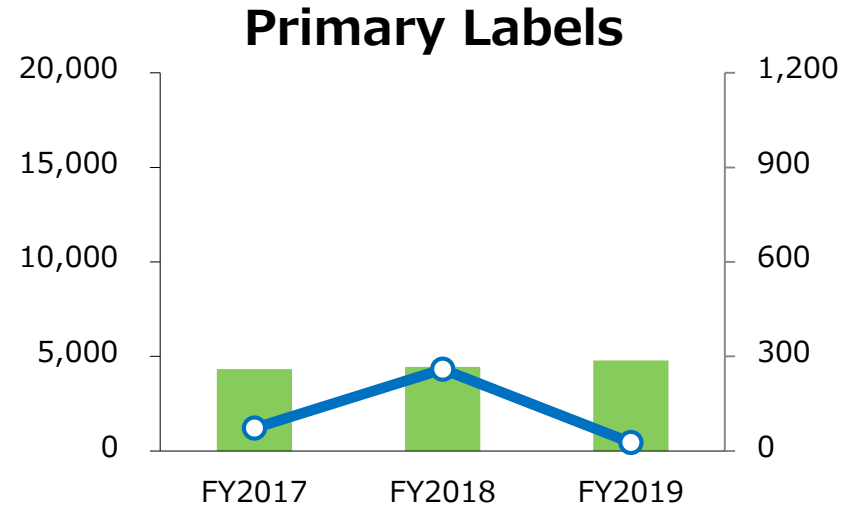
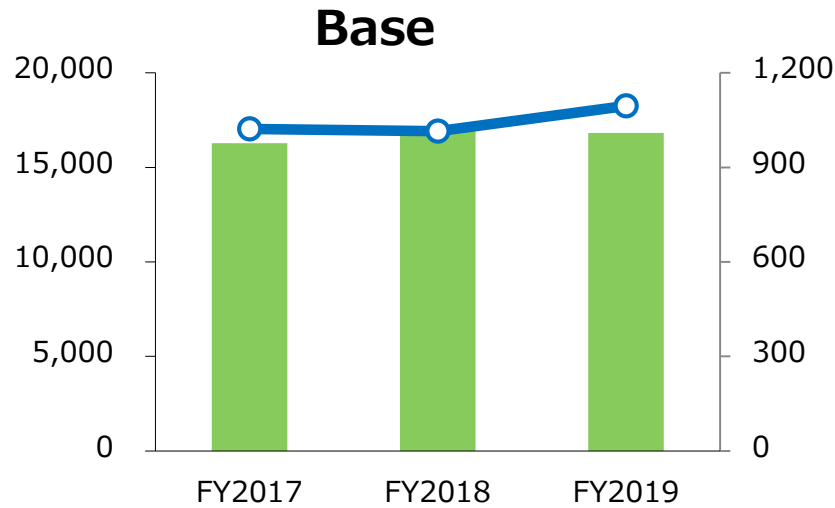


OI Ratio :
The Americas : 1.4%, Europe : 4.6%,
Asia/Oceania : 11.5%

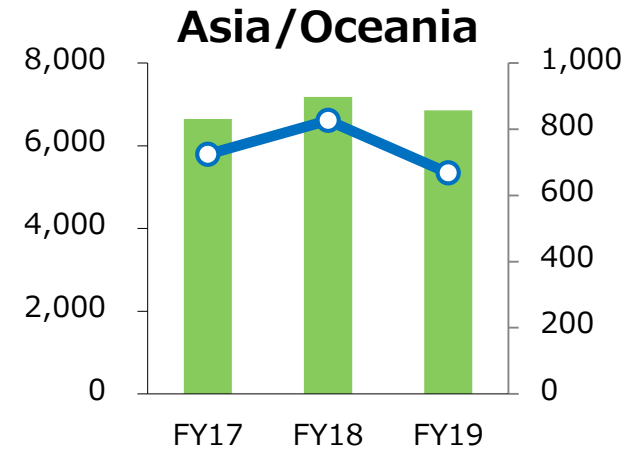
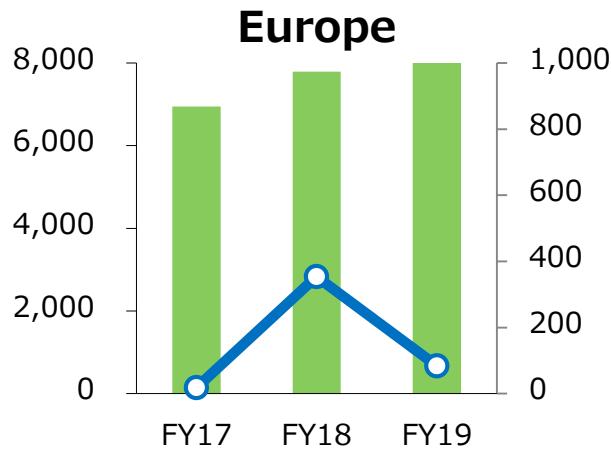
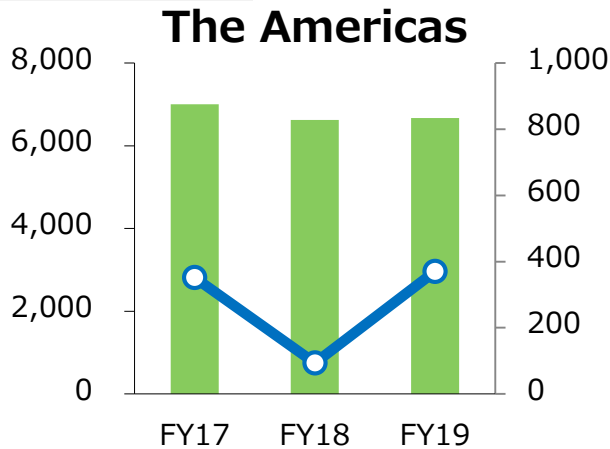
OI Ratio :
The Americas : 5.5%, Europe : 1.0%,
Asia/Oceania : 9.7%

Sales and OI Trends by Business Segment and Region

By Business Segment Sales (Green Bar) OI (Blue Line) (Millions of JPY; Sales (left axis), OI (right axis))



By Region



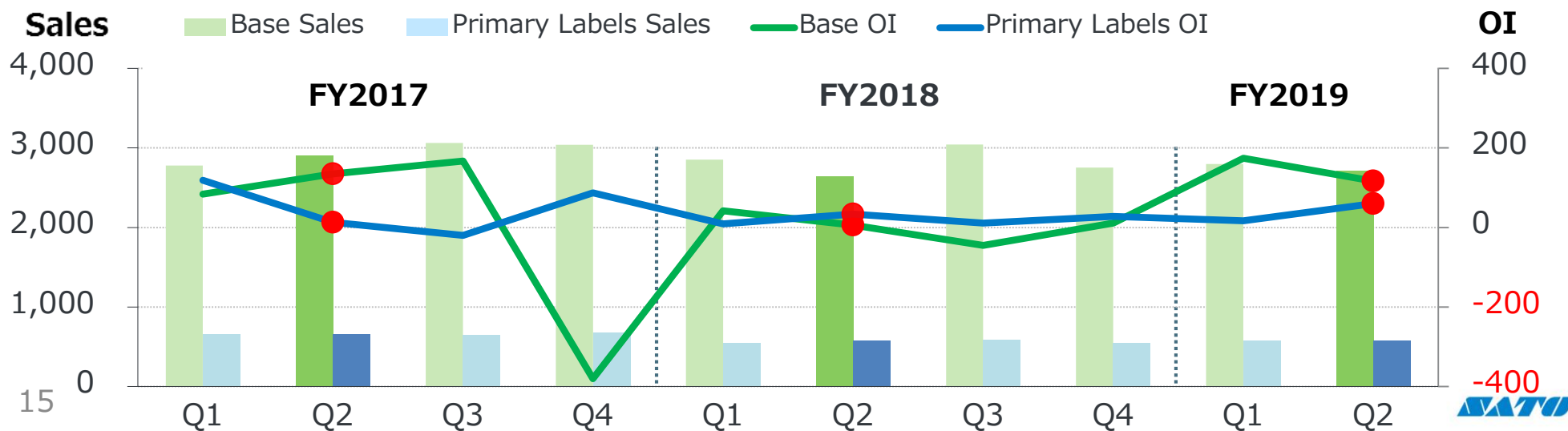
Breakdown by Region: The Americas

Base business: Direct sales business grew at the US subsidiary, but sales remained flat YoY due to factors including adverse FX impact. OI increased significantly due to the elimination of R&D cost from the liquidated US software development subsidiary.

Primary Labels business: Sales and OI both increased, with OI jumping significantly. The latter was particularly driven by Achernar in Argentina, which managed to pass cost increases on to customers.

(Millions of JPY)

		FY2019	FY2018	Change	YoY	excl. FX impact
Base	Total Sales	5,512	5,495	+16	100.3%	103.7%
	Operating Income	291	49	+242	591.4%	619.2%
Primary Labels • Achernar • Prakolar	Total Sales	1,163	1,130	+33	102.9%	129.7%
	Operating Income	78	43	+34	178.8%	322.9%



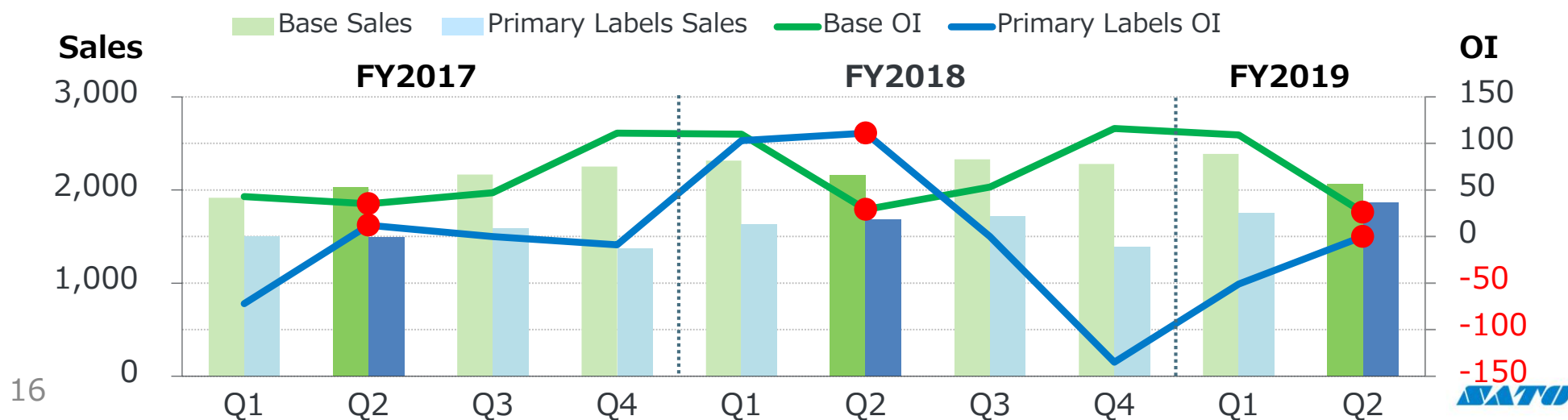
Breakdown by Region: Europe

Base business: Sales remained flat and OI dropped slightly YoY, mostly due to adverse FX impact. The UK sales subsidiary increased sales and turned profitable after securing a large order to address food safety needs.

Primary Labels business: Sales increased thanks to new business engineered by Okil in Russia. However, OI decreased due to higher raw materials cost and adverse FX impact.

(Millions of JPY)

		FY2019	FY2018	Change	YoY	excl. FX impact
Base	Total Sales	4,453	4,475	-22	99.5%	106.5%
	Operating Income	135	139	-4	97.1%	106.3%
Primary Labels • Okil • X-Pack	Total Sales	3,618	3,314	+303	109.2%	112.4%
	Operating Income	-51	215	-266	-	-



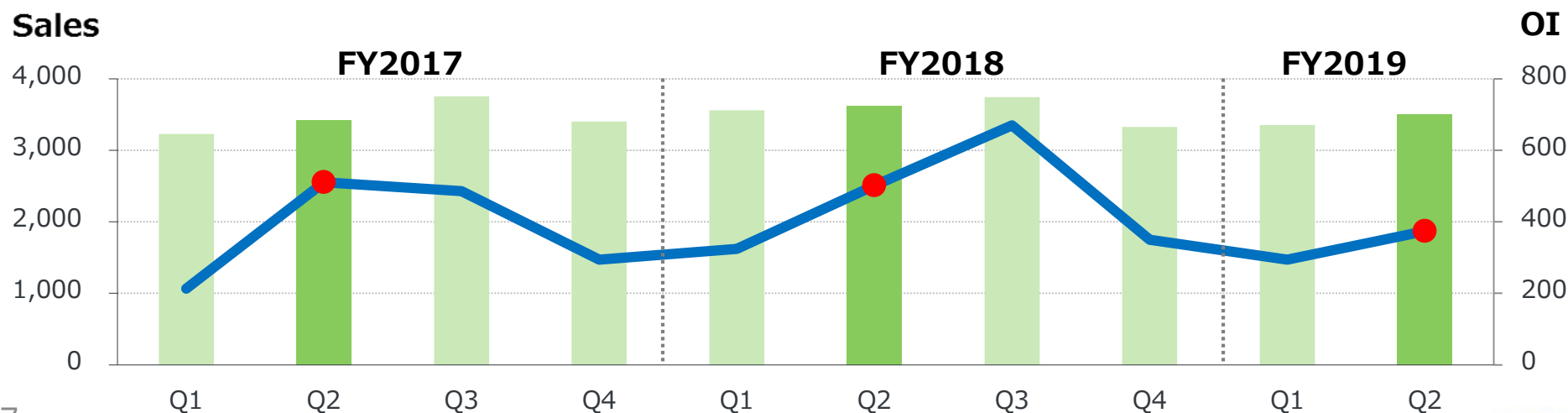
Breakdown by Region: Asia/Oceania

Base business: Sales and OI decreased YoY due to trade conflict resulting in slower business at Chinese sales subsidiaries and the printer subsidiary in Taiwan for which China is the main market. Despite the harsh external business climate, OI posted a quarterly increase in Q2.

(Millions of JPY)

Base		FY2019	FY2018	Change	Change	
					YoY	excl. FX impact
	Total Sales	6,860	7,181	-321	95.5%	99.3%
	Operating Income	668	827	-158	80.8%	82.9%

Sales OI

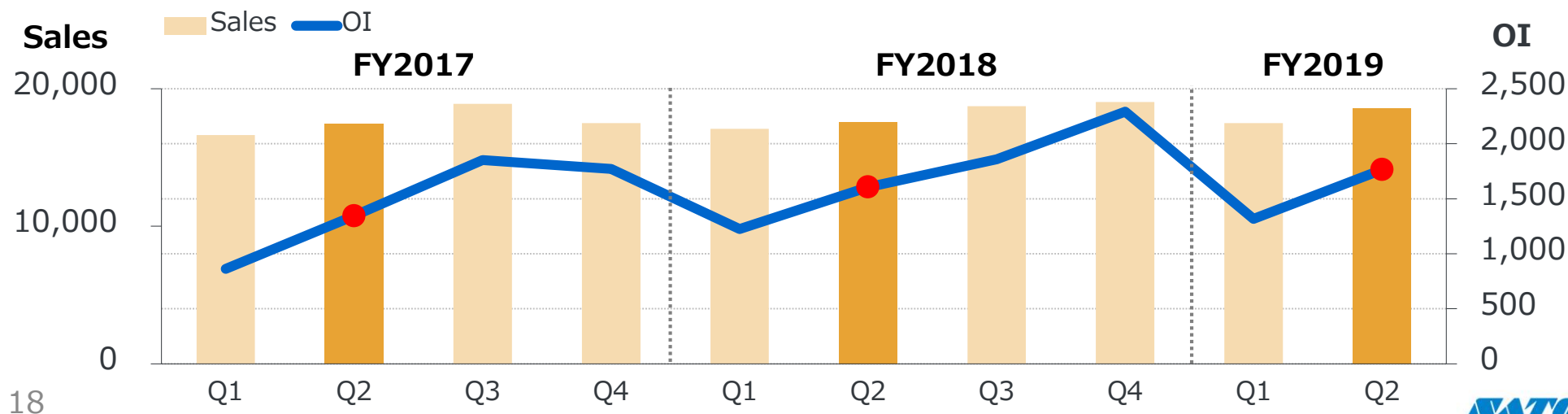


Overview

Sales and OI increased YoY thanks mainly to growth in mechatronics. Profit margins continued to improve due to mix factors.

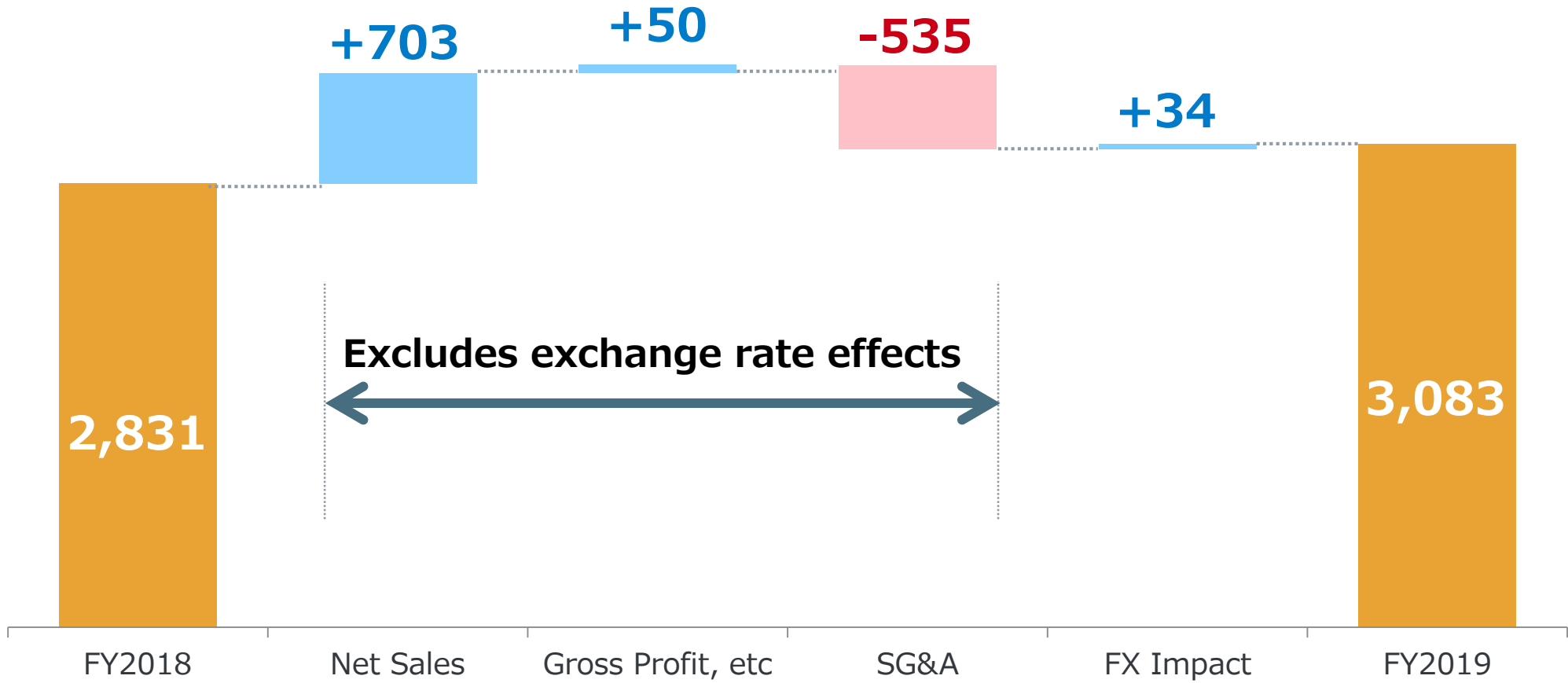
(Millions of JPY)

	FY2019	FY2018	Change	YoY
	Mechatronics Sales	14,630	13,217	+1,412
Consumables Sales	21,443	21,443	+0	100.0%
Total Sales	36,073	34,661	+1,411	104.1%
Gross Profit	18,058	17,269	+788	104.6%
Gross Profit %	50.1%	49.8%	+0.2pt	-
Operating Income	3,083	2,831	+252	108.9%
Operating Income %	8.5%	8.2%	+0.4pt	-



Major Gains/Losses in OI

(Millions of JPY)



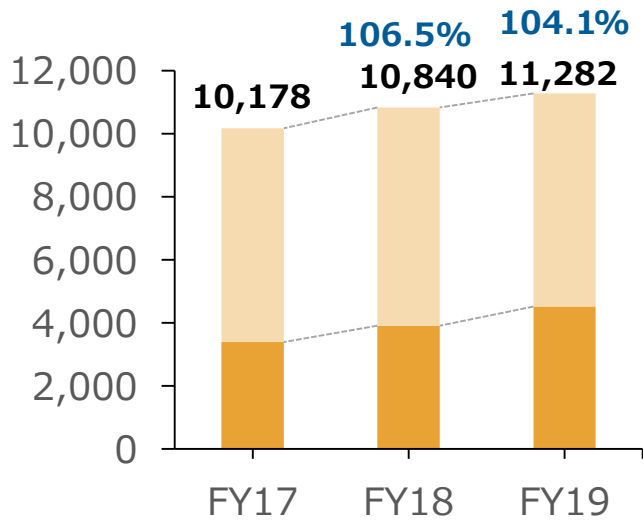
Sales by Vertical (Apr-Sep) [1]

(Millions of JPY)

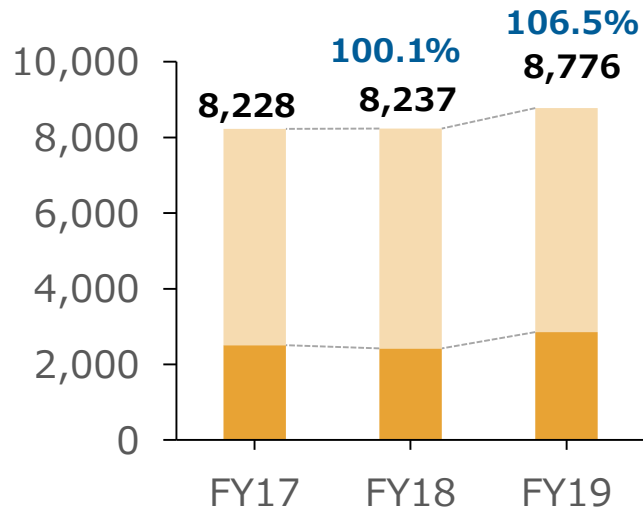
■ : Mechatronics ■ : Consumables

*Figures are total sales; % indicates YoY change

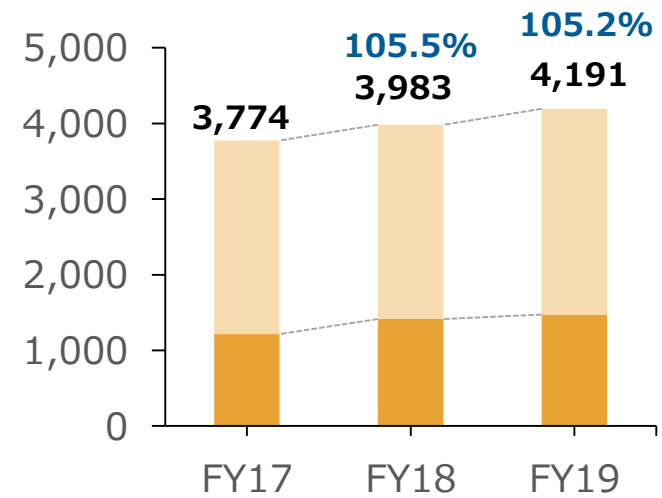
Manufacturing



Logistics



Retail



- The industry of electronic components slumped, but high-performance chemical and steel materials grew. Overall, there was continued willingness to invest in productivity improvements.
- In addition to printer-replacement orders, response has also been good for a variety of solutions involving RFID and location tracking systems.

- Demand was strong mainly due to buoyant e-commerce, as well as labor shortages and regulatory compliance.
- Mechatronics sales performed well as business expanded in solutions, owing to increased demand in automated labeling and carton forming/sealing.

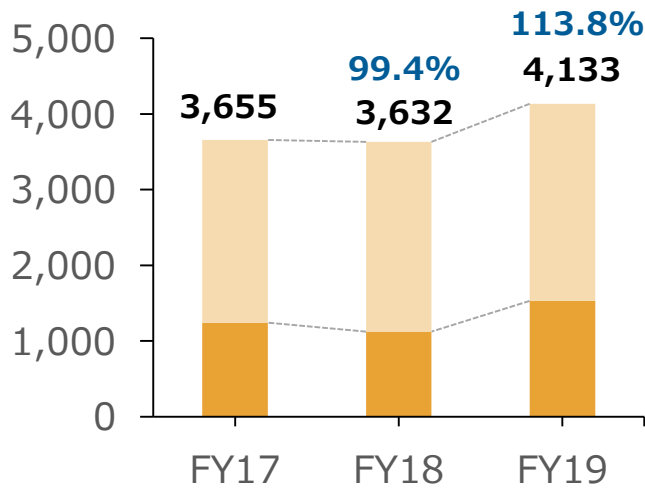
- Logistics volume increased as more retailers entered the e-commerce market. Demand related to regulatory compliance remained strong.
- Increased logistics volume promoted growth in consumables. Sales increased in mechatronics due to progress in providing solutions for HACCP compliance.

Sales by Vertical (Apr-Sep) [2]

(Millions of JPY)

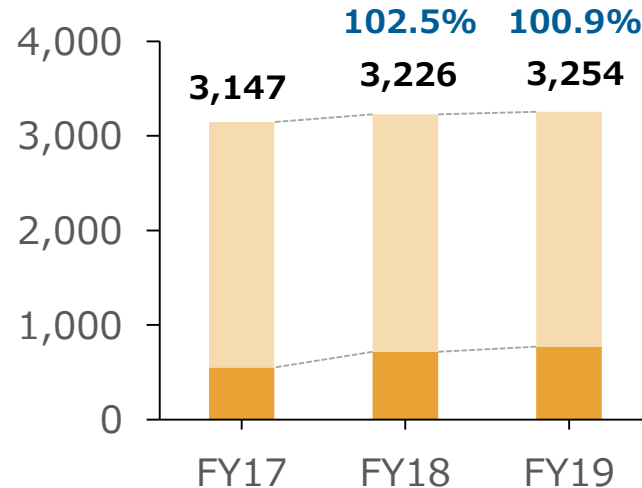
■ : Mechatronics ■ : Consumables *Figures are total sales; % indicates YoY change

Health Care



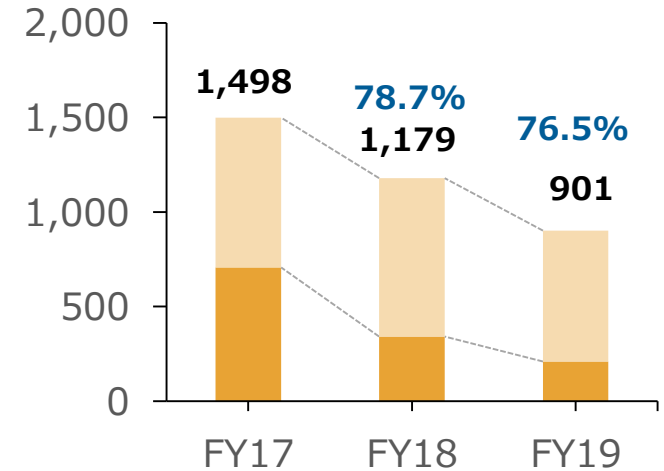
- Business environment remained favorable due mainly to steady demand related to barcode labeling of drugs and medical devices, and labor shortage.
- Sales of solutions utilizing RFID and location tracking technology as well as barcodes performed well.

Food & Beverage



- Business environment remained favorable as the industry sought compliance to amended regulations and enhancement of manufacturing process control.
- Printer-replacement orders and compliance with regulatory revisions led to sales growth in mechatronics. Despite lower sales in consumables, effective measures improved profitability.

Public



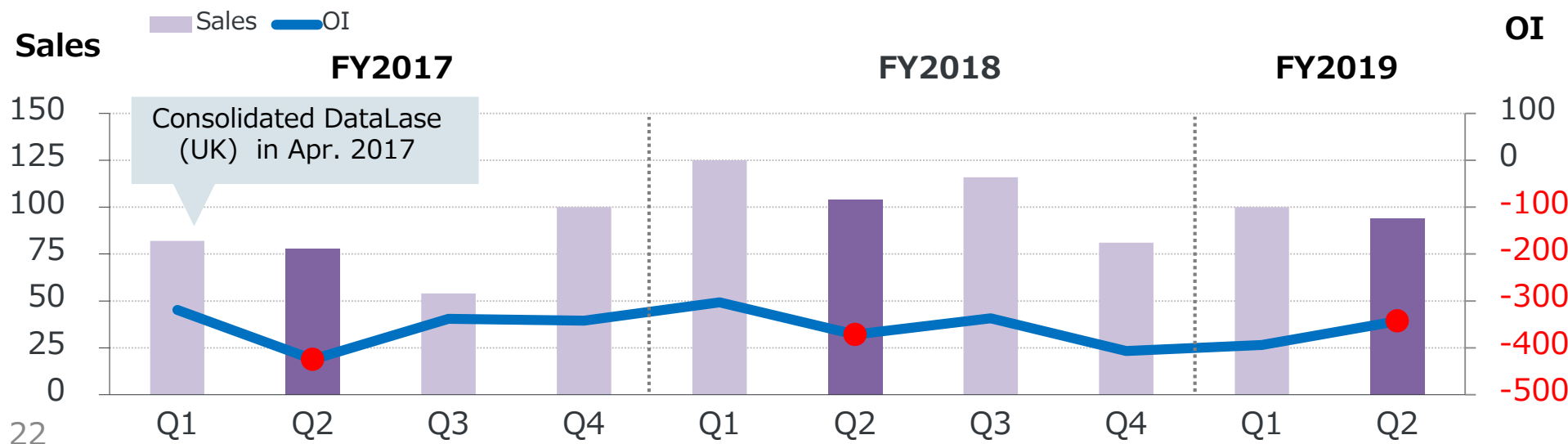
- Business environment remained stable.
- While approaches are being made to new industries, sales dropped as a whole YoY as a volume-order customer adjusted inventories of consumables.

Overview

R&D progressed largely as planned and entered the assessment phase.

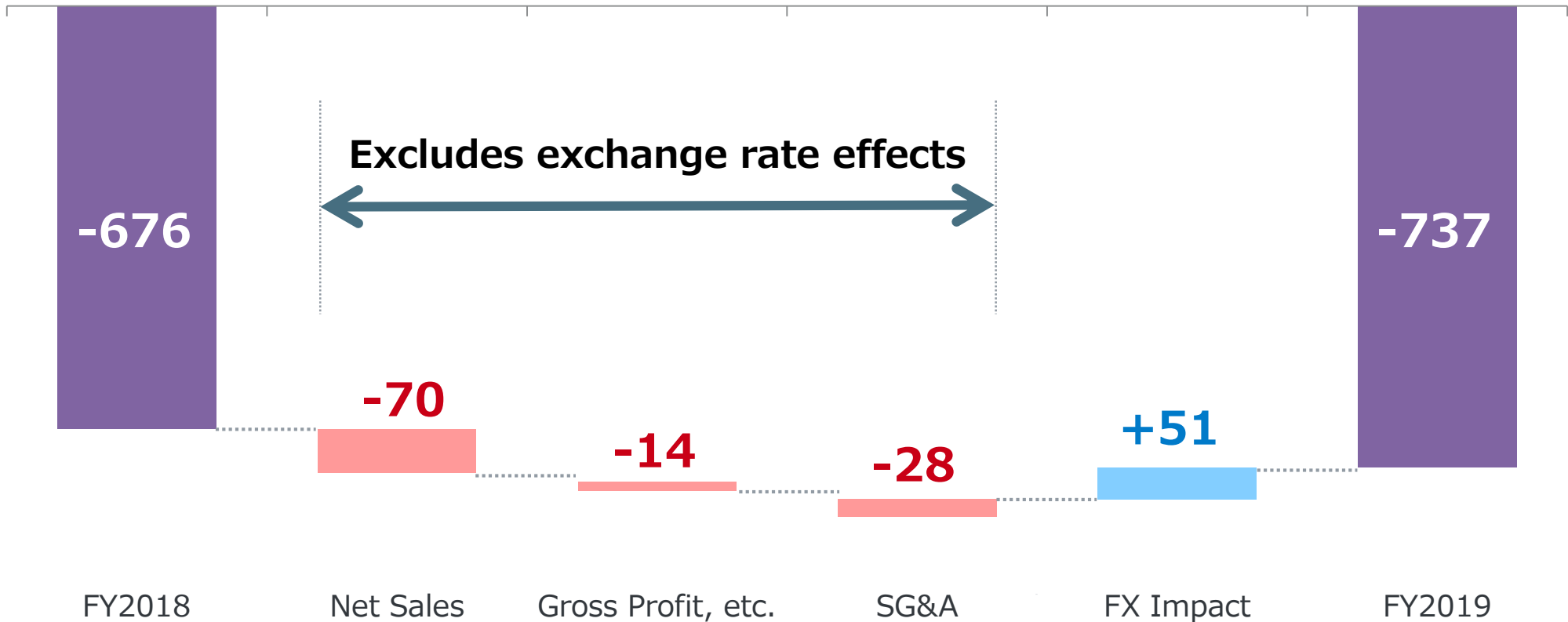
(Millions of JPY)

	FY2019	FY2018	Change	YoY	
					excl. FX impact
Total Sales	194	230	-35	84.5%	90.3%
Gross Profit	137	231	-93	59.6%	-
Gross Profit %	70.9%	100.4%	-29.6pt	-	-
Operating Income	-737	-676	-61	-	-
Operating Income %	-	-	-	-	-



Major Gains/Losses in OI

(Millions of JPY)



• IDP Business Progress in R&D

We have entered the assessment phase for technologies under development. We expect to make a decision on commercialization before the end of FY2019.

Bottles

- Development on lasers is roughly 3 months behind schedule due to spec changes requested by customers.
- Installation to customer's equipment completed in September 2019.
- Currently under assessment with the goal of commercialization.



Cups

- Conducting small-scale, in-store tests overseas from June 2019.
- Currently in talks of running tests with a customer operating a medium-size chain.

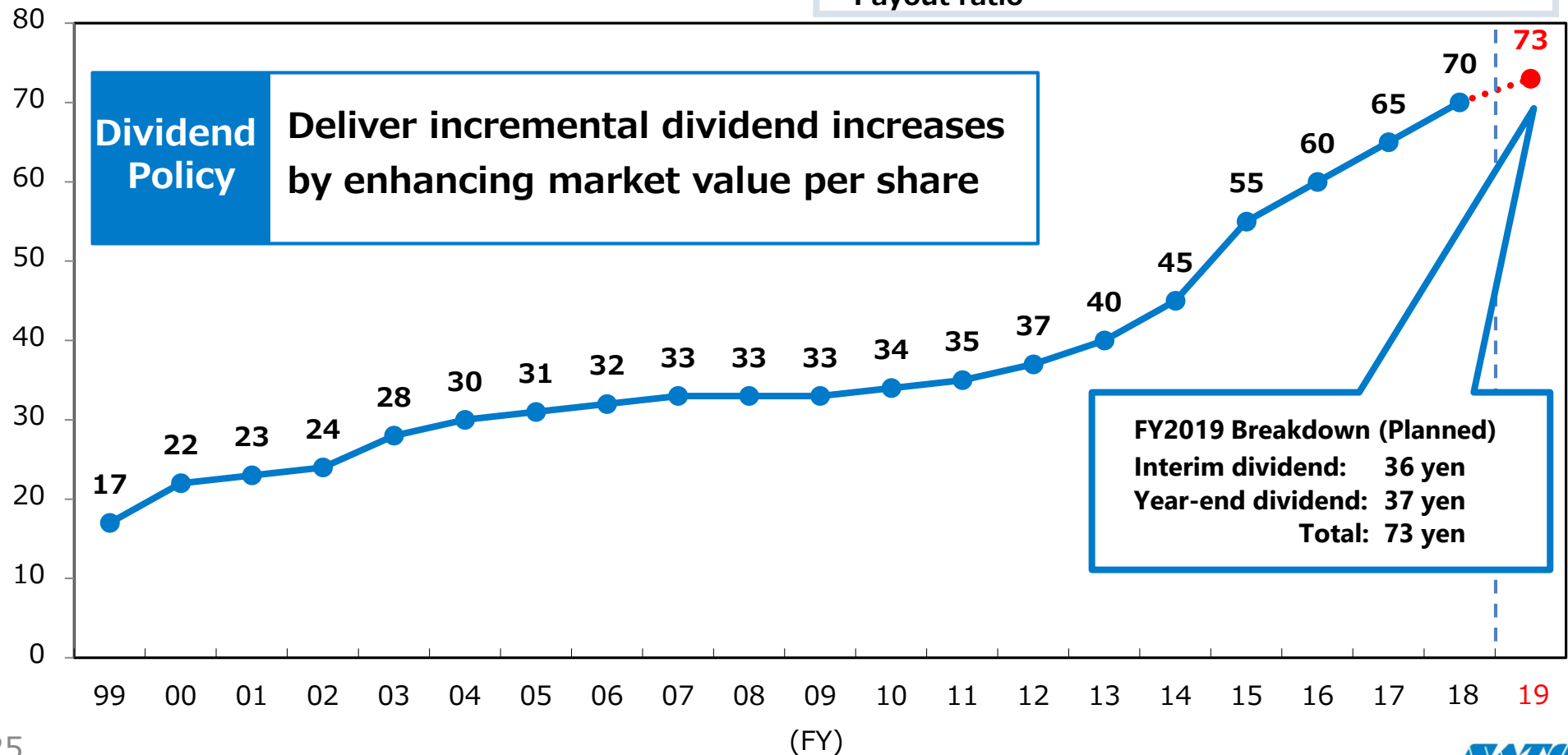


Dividends

Interim dividend payment of 36 yen is scheduled as planned.

	FY2017	FY2018	FY2019 (Forecast)
EPS	¥121.5	¥112.5	¥175.8
ROE	7.6%	6.9%	10.5%
(Ref.) Payout ratio	53%	62%	42%

(JPY per share)



FY2019 Consolidated Forecasts

(Millions of JPY)

	1H		2H		Full Year	
	Results	YoY	Forecast	YoY	Forecast	YoY
Net Sales	57,875	102.5%	62,124	104.1%	120,000 (120,000)	103.3%
Operating Income	3,542	105.9%	4,957	114.3%	8,500 (8,500)	110.7%
Ordinary Income	3,237	101.4%	4,862	109.8%	8,100 (8,300)	106.3%
Profit attributable to owners of parent	2,880	150.0%	3,019	162.9%	5,900 (5,000)	156.3%

<Reference>

* Figures in parentheses are forecasts announced as of May 13, 2019

EBITDA*	13,250	←FY2018 full year	14,100 (14,100)	106.4%
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* EBITDA=Operating Income + Depreciation + Amortization

Exchange rates assumed in FY19 forecast: JPY 108/USD, JPY 120/EUR
Average exchange rates for Apr-Sep FY19: JPY 108.60/USD, JPY 121.40/EUR
Average exchange rates for FY18 : JPY 110.92/USD, JPY 128.44/EUR

Our overseas business's
progress in its medium-term
objectives and strategies

Main strategies

Narrow down focal area/industry for each overseas sales company, set strategies, action plans and investment plans to detail and execute with speed.

- 1. Optimize resources based on focal area & industry**
- 2. Create/enhance products, services and solutions for each industry**
- 3. Enhance sales collaterals/system to support koto-uri (Selling the solution, not the product)**
- 4. Strengthen global alliances**
- 5. Establish CRM (customer relationship management) system and other sales infrastructure**

1. Optimize resources based on focal area & industry

Top priority and focal countries:

**Top
priorities**

India



Vietnam



USA



Focal

Thailand

China

Indonesia

Philippines

Russia

1. Optimize resources based on focal area & industry

To offer optimal solutions that draw on our strength, we need to take industry-specific strategies.

Verticals	Manufacturing	Logistics	Retail	Health care	Food & beverage
Industries	Automotive	Transportation	Supermarkets	Hospitals	QSR
	Robotics/ Machinery	B2B logistics	Specialty stores	Pharmaceuticals	Restaurants
	Electronic components	B2C logistics	Drug stores	Medical equipment	Food manufacturing
	Steel/Metal	Manufacturer logistics	Convenience stores	Medical supplies	Food processing
	Chemicals	3PL	Mass-retailers	Blood testing	Beverage

1. Optimize resources based on focal area & industry

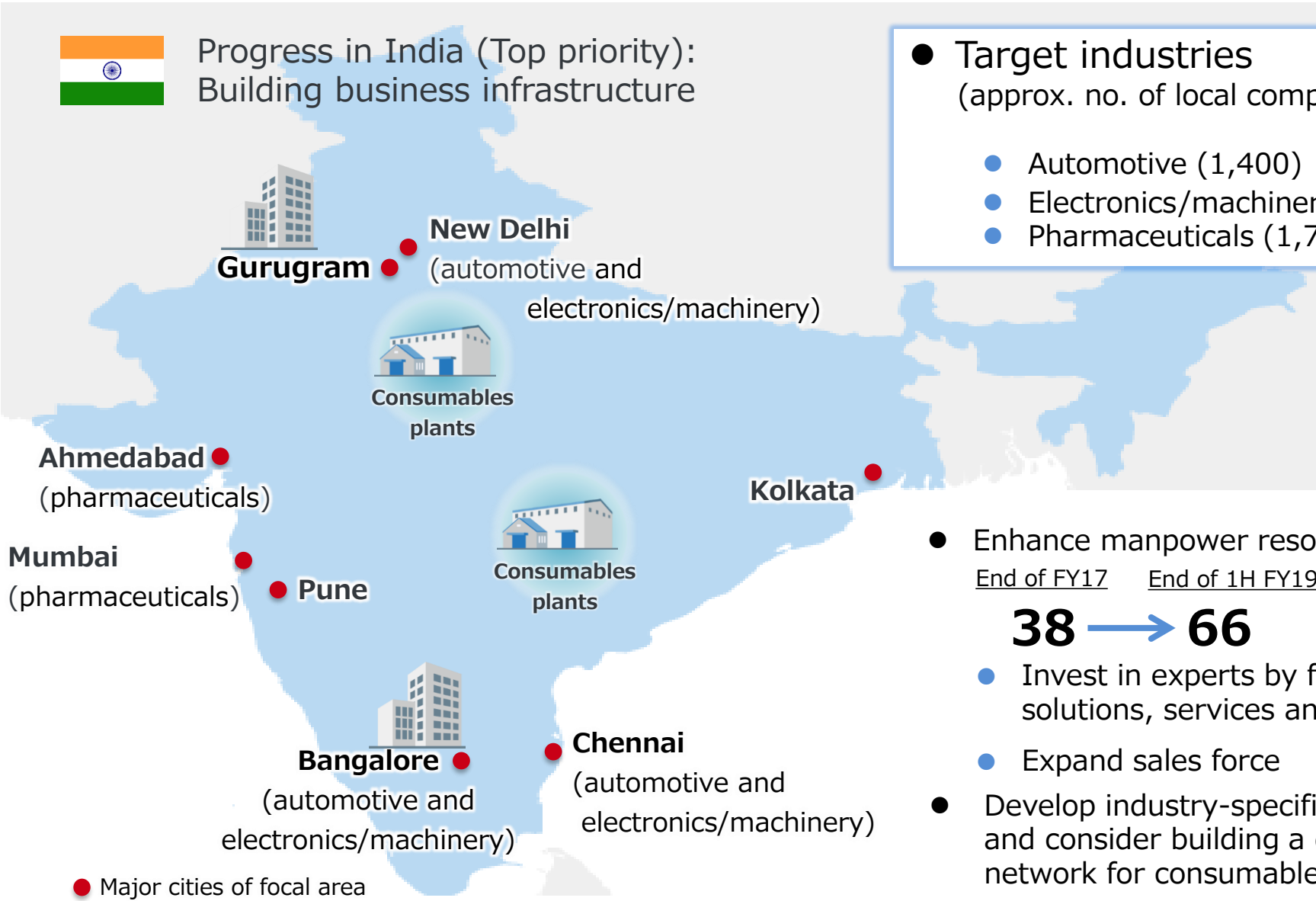
 Progress in India (Top priority):
 Setting target industries

Verticals	Manufacturing	Logistics	Retail	Health care	Food & beverage
Industries	Automotive	Transportation	Supermarkets	Hospitals	QSR
	Robotics/ Machinery	B2B logistics	Specialty stores	Pharmaceuticals	Restaurants
	Electronic components	B2C logistics	Drug stores	Medical equipment	Food manufacturing
	Steel/Metal	Manufacturer logistics	Convenience stores	Medical supplies	Food processing
	Chemicals	3PL	Mass-retailers	Blood testing	Beverage

1. Optimize resources based on focal area & industry



Progress in India (Top priority):
Building business infrastructure



- Target industries (approx. no. of local companies)
 - Automotive (1,400)
 - Electronics/machinery (1,800)
 - Pharmaceuticals (1,700)

- Enhance manpower resources

End of FY17 End of 1H FY19

38 → 66

- Invest in experts by field such as solutions, services and labels.
- Expand sales force
- Develop industry-specific partners and consider building a distribution network for consumables.

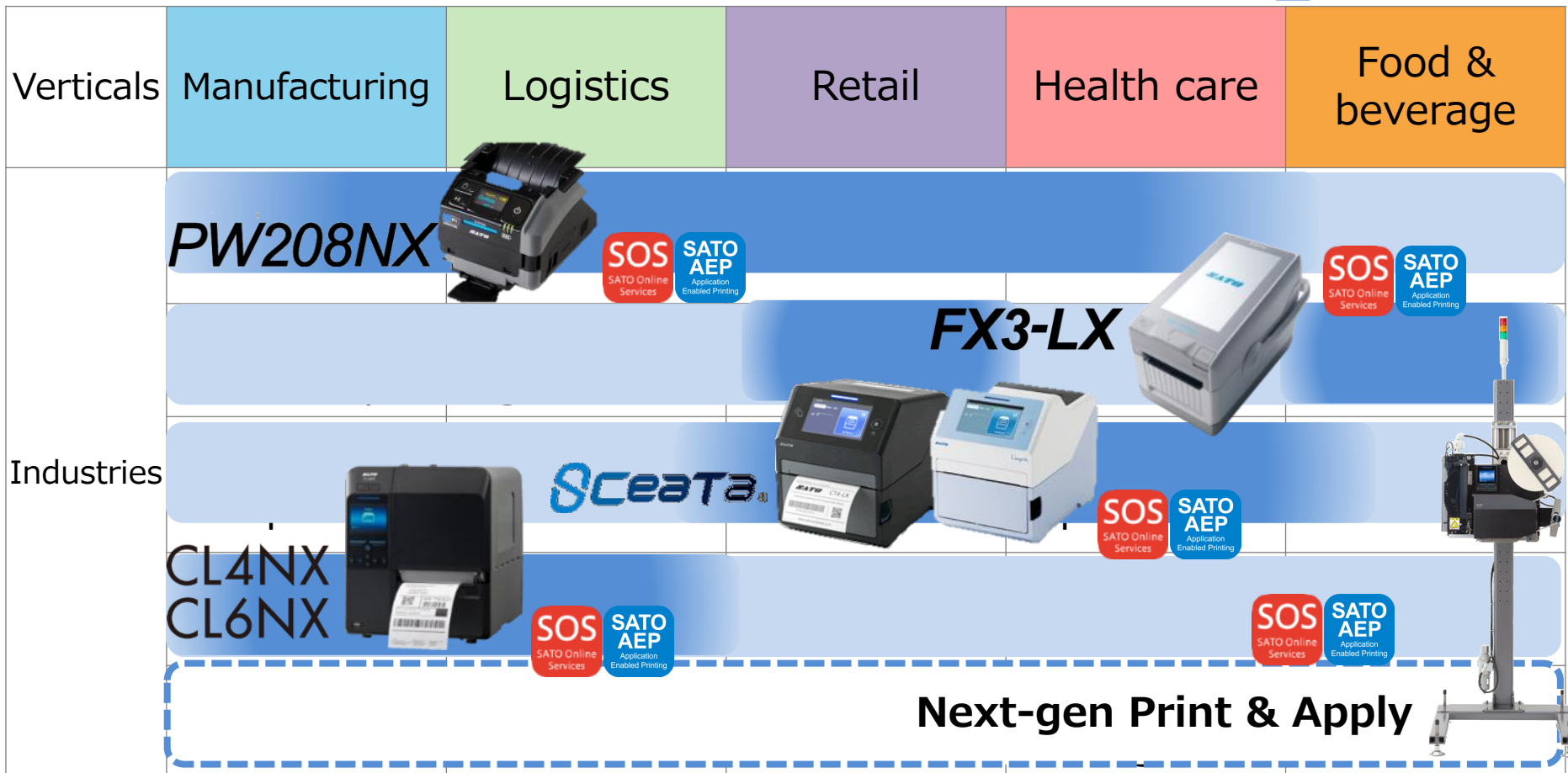
● Major cities of focal area



2. Create/enhance products, solutions and services for each industry

We will further enhance our product portfolio of global strategic printers, which will expand our market/industry coverage and enable us to further promote our koto-uri sales approach.

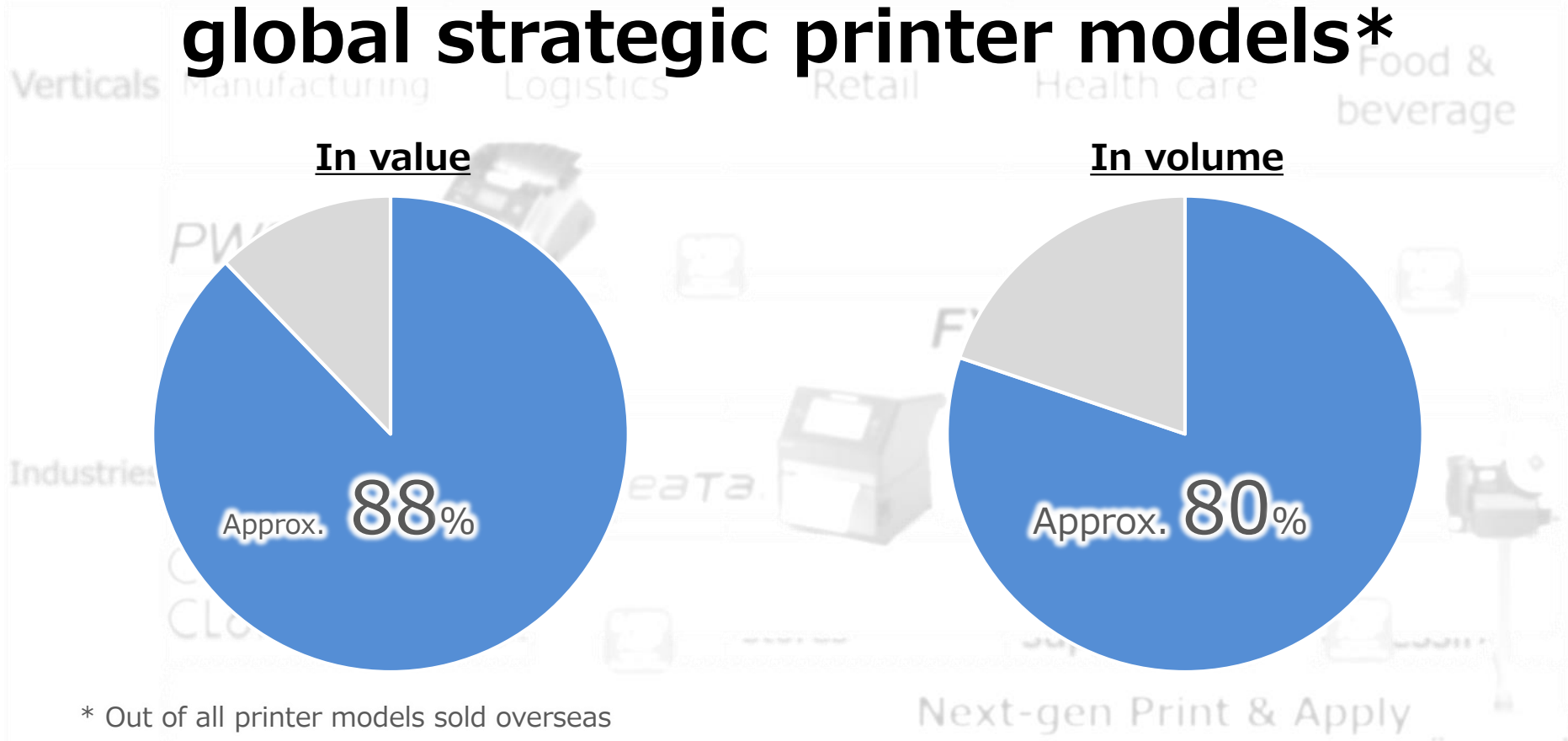
■ Target industries



2. Create/enhance products, solutions and services for each industry

We will further enhance our product portfolio of global strategic printers, which will expand our market/industry coverage and enable us to further promote our koto-uri sales approach

FY18 Overseas business Sales contribution ratio of global strategic printer models*



* Out of all printer models sold overseas
(Excludes Argox-brand printers)

2. Create/enhance products, solutions and services for each industry

Unique features installed in printers offer incomparable value and boost sales



Remote monitoring service for printers, connecting them to the internet



Intelligence inside the printer to optimize label printing

[Value for customers]

- **Minimize downtime (stable operation)**
- **Improve efficiency in asset management**

[Value for customers]

- **Increase productivity**
- **Save space and cost**



2. Create/enhance products, solutions and services for each industry



Progress in the United States (Top priority)

Success in approaching end users directly through the koto-uri approach has led to a number of ongoing deals with major global companies.

E.g., a case with a major supermarket chain



[Customer's pain point]

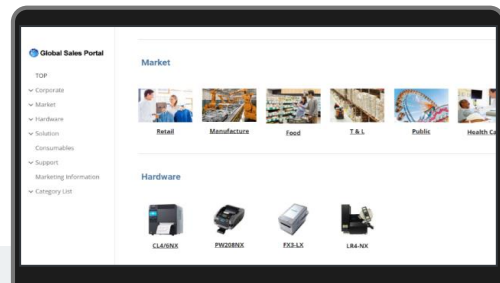
- "When printers at our distribution center break down, we cannot ship products to stores until they recover. Any downtime is a cost, especially during peak seasons such as Christmas."



A deal for several thousands of printers is ongoing

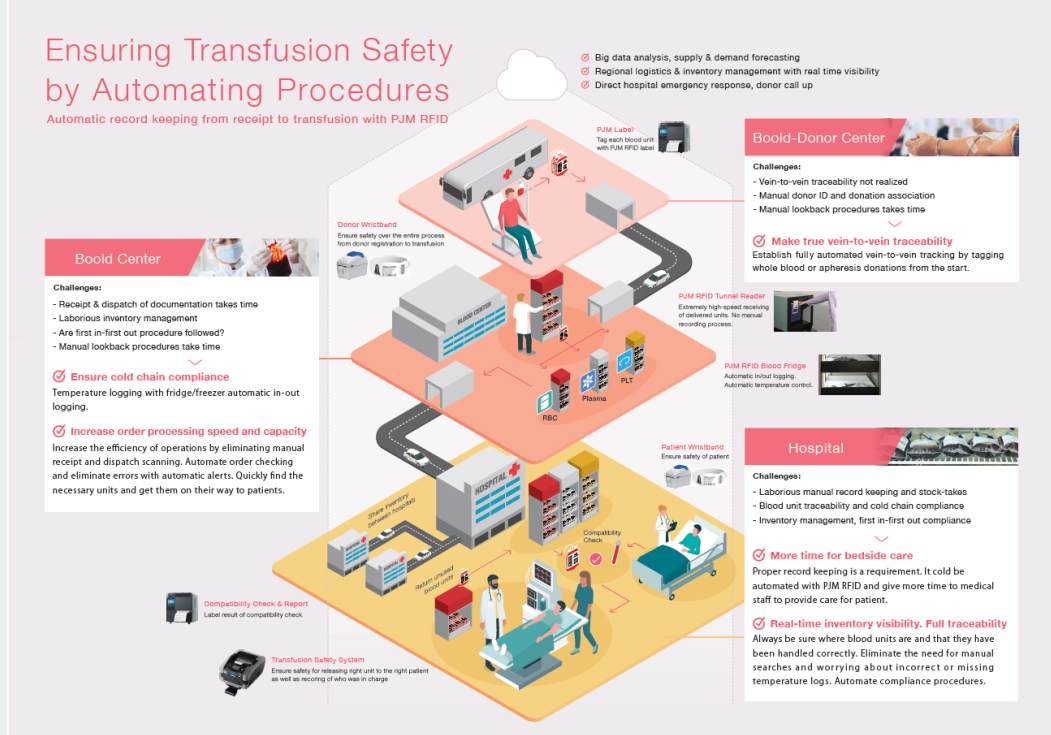
3. Enhance sales collaterals/system to support koto-uri

Make marketing tools available globally and create an information sharing platform



Global-Sales-Portal (Stock collaterals)

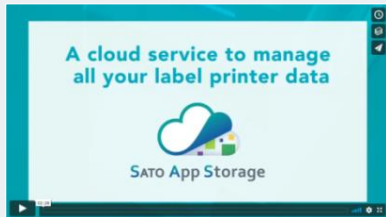
Industry Map



Solution leaflet



Video



3. Enhance sales collaterals/system to support koto-uri

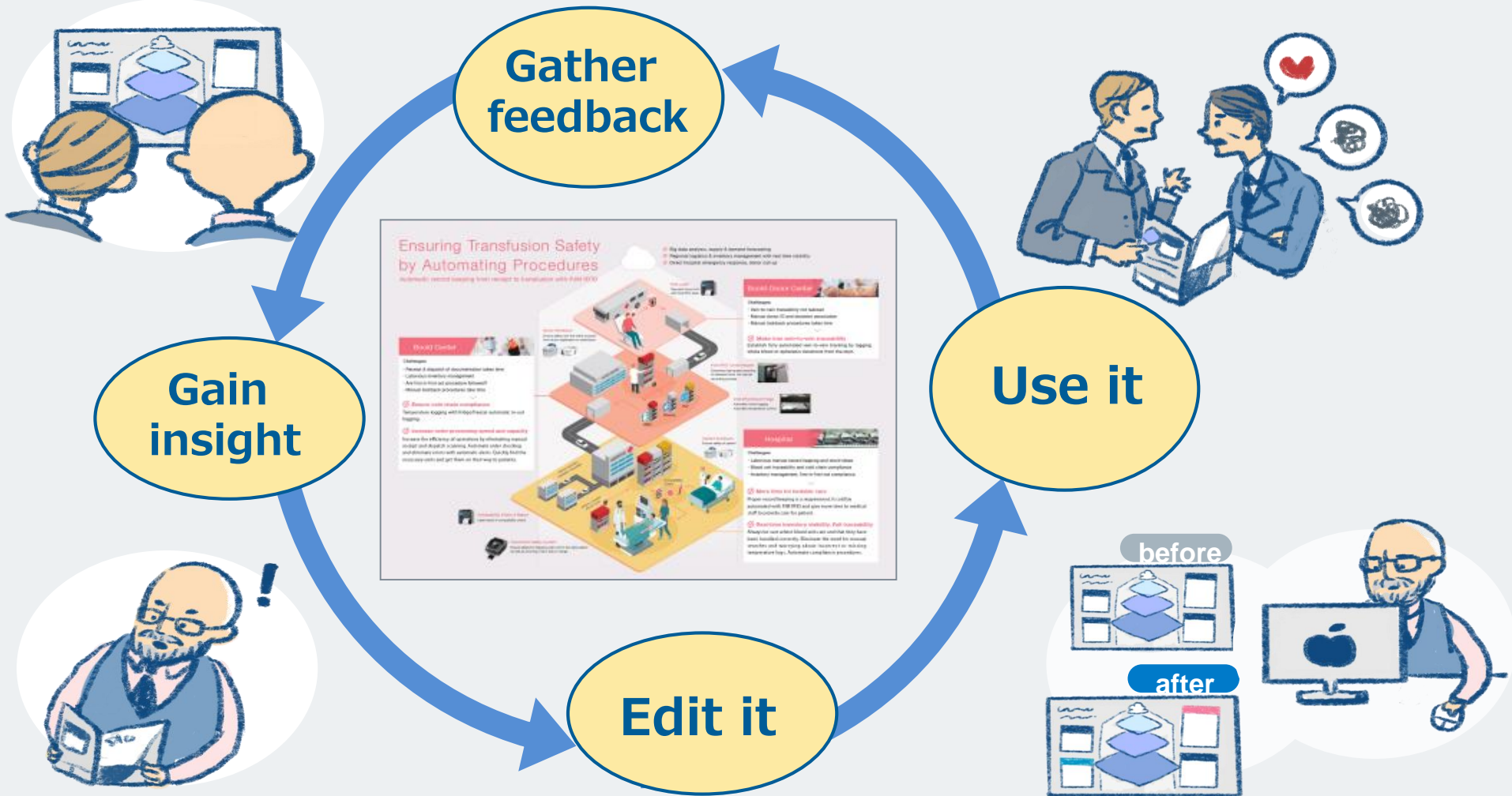
Industry Maps for 14 industries are now available.



Verticals	Manufacturing	Logistics	Retail	Health care	Food & beverage
Industries	Automotive	Transportation	Supermarkets	Hospitals	QSR
	Robotics/Machinery	B2B logistics	Specialty stores	Pharmaceuticals	Restaurants
	Electronic components	B2C logistics	Drug stores	Medical equipment	Food manufacturing
	Steel/Metal	Manufacturer logistics	Convenience stores	Medical supplies	Food processing
	Chemicals	3PL	Mass-retailers	Blood testing	Beverage

3. Enhance sales collaterals/system to support koto-uri

The Global Marketing Headquarters are working closely with our overseas sales companies to ensure the effective use of marketing collateral and cyclically improve the content.



4. Strengthen global alliances

Alliances help generate new businesses globally.



**Automaker A
(Global)**



**Major food
manufacturer
(US)**



**Major
supermarket
chain
(UK)**



**Major apparel
retailer
(EU)**



**Automaker B
(Global)**



**Automaker C
(Global)**



**Steel maker
(Global)**



**Furniture
retailer
(Global)**



5. Establish CRM system and other sales infrastructure

Installed CRM systems in almost all of our subsidiaries, both in Japan and abroad, for efficient and sustainable business practices.

Objectives


Improve visibility

- Understand the status
- Run PDCA cycle for strategies
- Increase the number of deals in the pipeline

Share information

- Customers' pain points and applications
- Proposals and sales approaches

<u>Timeline</u>	FY17	FY18	FY19
Japan	→		
US	→		
EU	→		
Asia Pacific	→		



Appendix

SATO Terminologies Page 43–46

SATO Terminologies (1/4)

SATO-unique business concepts/initiatives		Description*
1	Auto-ID Solutions business	Our business that carries out <u>DCS & Labeling +One</u> . It is specifically about integrating barcode printers/labels, software and services designed in-house with products and technologies from partners to resolve customers' worksite issues. This business is separated into Overseas and Japan segments, with the former comprised of the <u>Base</u> and the <u>Primary Labels</u> businesses.
2	Base business	Business of <u>tagging</u> variable information at customer's site of operations.
3	Primary Labels business	Overseas business of <u>tagging</u> fixed information via product labels and other media. This business operates from SATO Group companies; <u>Achernar</u> (Argentina), <u>Prakolar</u> (Brazil), <u>Okil</u> (Russia) and <u>X-Pack</u> (Russia).
4	IDP business	Develops, manufactures and sells materials used mainly in Inline Digital Printing (<u>IDP</u>). A reporting segment formerly named "Materials business."
5	Koto-uri (Selling the solution, not the product)	Sales approach of selling not the product but combinations of products in the form of solutions that include hardware, <u>consumables</u> , maintenance services and software, together with ROI and other value propositions for the customer.
6	Tagging	The process of physically attaching to something data that identifies and/or locates it. This involves digitizing information of the things it is tagged to so that the tagged data can be fed to and processed by core IT systems.
7	DCS & Labeling +One (DCS: Data Collection Systems)	SATO's business model that incorporates auto-ID technology (such as barcodes and <u>RFID</u>) with barcode printers and labels/labeling services to (a) systematically collect data on people and things at business sites and (b) offer <u>tagging</u> /labeling of information, using accurate, efficient and optimized solutions. In line with increasingly sophisticated user needs, SATO also pursues a policy of open innovation and partnerships to provide value-added "+One" technologies such as image/voice recognition, location tracking and sensors to its legacy business model to better solve customer challenges.
8	Matching data with people and things	Connecting people and things at customer sites with information. Ever since our days of pioneering in hand labelers that attached price and other information to products, this concept has remained central to SATO's business.

(*) Underlined terms are described under its own heading

SATO Terminologies (2/4)

SATO-unique business concepts/initiatives		Description
9	Genbaryoku	Our core competency of going to customer sites to understand their operations and identify the essence of issues to offer optimized solutions. It is our ability to (1) integrate products, services and technologies into solutions, working together with strategic partners, (2) address a wide range of market, industry and application needs with our expertise in sites of operations, and (3) offer maintenance services and solutions continuously to build trust and establish lasting relationships with customers.
10	Teiho	Teiho is SATO's unique system of reports and proposals in effect since 1976. Employees share new information and ideas they come across on-site every day to top management via the Teiho system. Teiho helps top management gain immediate insight into the internal/external business situation to facilitate quick decision-making and execution of initiatives, while allowing "participation by all" in the management of the company. As Teiho reports are directly addressed to top management, it is also an effective means of compliance monitoring to prevent malpractice and other inappropriate behavior and assist in corporate governance. Some of our global offices have also started Teiho, with more to follow.
11	AAP (Area Alliance Partner)	Our initiative in Japan to segment regions into smaller divisions and form alliances with partners having strong presence in areas/industries that we have yet to cover.
Products, services, technologies		Description
1	Mechatronics	All products not <u>consumables</u> , including hardware (e.g., printers, automatic labelers, scanners, hand labelers), software and maintenance services. They generate higher gross profit margin than <u>consumables</u> . Printers are manufactured in Malaysia, Vietnam and Taiwan.
2	Consumables	"Consumable" products such as <u>variable information labels</u> , <u>RFID tags</u> , primary labels (product labels) and ribbons. They generate lower gross profit margin than <u>mechatronics</u> , but incur low SG&A expenses as they are typically sold through repeat business.
3	Auto-ID Solutions	Combination of products such as printers, labels, software and maintenance services using auto-ID technologies to carry out <u>DCS & Labeling +One</u> . To meet ever complex and diverse customer challenges, SATO also looks beyond its own resources and interests by pursuing partnerships, for example, to enable location technologies to track items by tags and inventory/worker movements in real time for managing manufacturing processes and visualizing productivity on-site.

SATO Terminologies (3/4)

Products, services, technologies		Description
4	SOS (SATO Online Services)	<p>A cloud-based monitoring service for printers that enables preventative maintenance and on-the-spot troubleshooting.</p> <p>With SOS, users can view the status of their cloud-connected printers at a glance and manage them centrally with ease, while SATO can increase productivity of its service personnel, allowing for even small service teams (as is often the case overseas) to provide improved support.</p>
5	AEP (Application Enabled Printing)	<p>A powerful on-board intelligence which enables customization of printer operation. Printers can link to other systems on a stand-alone basis, without going through any computers.</p>
6	Variable information labels	<p>Blank or pre-printed labels used to print information elements such as barcode, product price and manufactured or expiry date that vary with every customer's site of operation. Unlike fixed information labels that are identical and printed at large quantities in a single run, variable information labels can be printed on-demand as and when needed.</p>
7	RFID (Radio Frequency Identification)	<p>A type of auto-ID technology that uses radio waves to read/write data from/to an RFID tag without making contact. RFID offers faster read rates (from reading multiple tags at the same time) and greater read range than traditional barcode technology. Also, unlike barcodes, RFID tags can be read when covered by another object or stained, and are read/write-capable to enable updates to the encoded data. Because of these key benefits, RFID can significantly improve operational efficiency.</p>
8	IDP (Inline Digital Printing)	<p>A revolutionary, direct marking technology comprised of a special heat-sensitive pigment that can be applied as a coating to virtually any substrate and exposed to a laser beam to create a color change.</p> <p>As IDP uses no ink or labels at the point of printing, it eliminates the need for labeling, minimizes stock keeping units (SKUs) and reduces waste, while shortening time spent on hardware maintenance. Besides delivering cost savings, productivity improvements and environmental benefits, IDP allows the printing of variable data for late stage customization/personalization of products and packaging, making it ideal for real-time, consumer-directed marketing. Development for multicolor capability — crucial for enhancing marketing effectiveness — is currently underway with commercialization targeted for FY 2021.</p>

SATO Terminologies (4/4)

Key acquisitions since 2012		Description
1	Argox Information Co., Ltd. (Taiwan)	[2012] Company engaging in the development, production and sales of entry level printers.
2	Achernar S.A. (Argentina)	[2012] Company specializing in primary labels.
3	Magellan Technology Pty Ltd. (Australia)	[2013] Company from which SATO acquired its healthcare business for PJM (Phase Jitter Modulation), a highly superior <u>RFID</u> technology that can quickly and accurately identify large volumes of tagged items stacked or stored in any physical orientation even in the presence of metals and liquids. Now SATO Vicinity Pty Ltd.
4	Okil-Holding, JSC (Russia)	[2014] Primary labels company in which SATO acquired 75% ownership stake. <u>X-Pack</u> is affiliated with Okil.
5	Prakolar Rótulos Autoadesivos LTDA. (Brazil)	[2015] Company specializing in primary labels.
6	DataLase Ltd. (UK)	[2017] Company engaging in the development, production and sales of the <u>IDP</u> color-change pigment and related products. Now a SATO consolidated subsidiary.
Overseas subsidiary founded after 2017		Description
1	X-Pack (Russia)	[2017] A subsidiary owned 60% by SATO Holdings in <u>Primary Labels business</u> producing and selling shrink sleeves, in-mould labels and soft packages.
2	SATO Healthcare Switzerland AG	[2018] A subsidiary owned 100% by SATO Holdings specializing in health care.



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