

HORIBA, Ltd.

Nomura Investment Forum 2016

December 1, 2016
Hotel Chinzanso Tokyo

Contents

- Review of Nine Months of 2016
- 2016 Full Year Forecast
- Business Segment Outline
- Shareholder Return
- Financial Data
- Corporate Profile

[Disclaimer]

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Review of Nine Months of 2016

External Events

- ◆ Earthquakes in Kumamoto
- ◆ Brexit (U.K.'s decision to leave EU)
- ◆ Exhaust gas and fuel economy testing problems
- ◆ Appreciation of the yen

Internal Events

- ◆ “HORIBA BIWAKO E-HARBOR,” a new R&D /production base, opened in May 2016.
- ◆ Full year results with the first inclusion of HORIBA MIRA performance since its acquisition
- ◆ Changed a revenue recognition policy in Jan. 2016: Shipment base → Delivery/installation base.

Review of Nine Months of 2016

The 2016 Kumamoto Earthquake (occurred on April 14 and 16)

HORIBA STEC, Co., Ltd., Aso Factory

- Location: Nishihara-mura (village), Kumamoto Prefecture
- Major products: Mass flow controller in the Semiconductor segment
- Damage: No damage on people but some damage to the building
(Recorded an extraordinary loss of 925mil yen in 2Q)
- Measures taken: Gradually resumed operation since the end of April.
Shifted a part of production into the Kyoto factory.
 ➔ Recovered the pre-earthquake production volume by early May.
- Current state: Renewed a record-high level of the production in June.



Aso Factory



Production Line

(Photos as of July 30)

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Sales, OP (Jan.-Sept. Results and Full year forecast)

(Billions of yen)

Sales	2015	2016	2015 vs 2016	2015	2016	2015 vs 2016	2016 Full year	
	Jan.-Sept.	Jan.-Sept.		Results	Forecast		Previous forecast	vs revised
Auto	40.7	39.4	-3.2%	65.4	64.0	-2.2%	65.0	-1.0
P&E	11.9	11.8	-0.8%	16.7	16.5	-1.2%	16.5	-
Medical	20.7	19.7	-4.8%	27.6	26.5	-4.2%	26.5	-
Semi	27.7	27.7	+0.1%	35.3	37.0	+4.7%	35.0	+2.0
Scientific	19.2	18.1	-5.7%	26.7	26.0	-2.8%	27.0	-1.0
Total	120.3	116.9	-2.9%	171.9	170.0	-1.1%	170.0	-

OP	2015	2016	2015 vs 2016	2015	2016	2015 vs 2016	2016 Full year	
	Jan.-Sept.	Jan.-Sept.		Results	Forecast		Previous forecast	vs revised
Auto	2.4	0.0	-97.4%	5.2	3.5	-32.7%	4.0	-0.5
P&E	1.1	1.1	-3.5%	1.7	1.5	-14.6%	1.3	+0.2
Medical	2.0	2.2	+9.6%	2.5	2.7	+5.5%	2.5	+0.2
Semi	7.6	7.1	-6.2%	9.4	9.0	-4.6%	8.7	+0.3
Scientific	0.6	0.1	-84.0%	1.1	0.8	-33.2%	1.0	-0.2
Total	13.8	10.6	-23.2%	20.1	17.5	-13.1%	17.5	+0.0

[Jan.-Sept. Result]

- Yen appreciation
→ Decreased sales and OP.

Auto

- Full-year result of HORIBA MIRA
- Yen appreciation
- MCT slow sales
→ Decreased sales and OP
- E-HARBOR full operation
→ Increased expenses

Semiconductor

- Volume increased but yen appreciated
→ Sales same as last year

[Full year forecast]

- Total Sales/OP no change
- Auto and Scientific
→ Downward revision
- Semiconductor
→ Upward revision
- P&E and Medical
→ Upward revision of OP

※2015 results are restated numbers. The same shall apply hereinafter

Sales, OP (Quarterly Results and Forecast)

(Billions of yen)

	2015					2016				
	1Q	2Q	3Q	4Q	Full year	1Q	2Q	3Q	4Q Forecast	Full year forecast
Sales										
Auto	14.1	12.5	14.0	24.7	65.4	14.9	13.1	11.2	24.5	64.0
P&E	4.2	3.9	3.6	4.8	16.7	4.1	3.6	4.0	4.6	16.5
Medical	7.2	6.6	6.8	6.8	27.6	6.9	6.8	5.9	6.7	26.5
Semi	10.3	8.7	8.6	7.6	35.3	8.6	9.2	9.8	9.2	37.0
Scientific	6.9	6.1	6.1	7.5	26.7	6.5	5.8	5.7	7.8	26.0
Total	43.0	38.0	39.2	51.5	171.9	41.2	38.7	36.9	53.0	170.0
OP										
Auto	2.2	0.7	-0.5	2.7	5.2	1.1	-0.5	-0.4	3.4	3.5
P&E	0.6	0.2	0.2	0.5	1.7	0.6	0.2	0.2	0.3	1.5
Medical	0.8	0.4	0.7	0.5	2.5	0.8	0.7	0.6	0.4	2.7
Semi	2.7	2.4	2.4	1.8	9.4	2.3	2.1	2.6	1.8	9.0
Scientific	0.5	0.0	0.0	0.5	1.1	0.2	0.0	-0.1	0.6	0.8
Total	6.9	4.0	2.8	6.2	20.1	5.1	2.6	2.8	6.8	17.5

[4Q forecast]

Auto

- Yen appreciated but volume increase
- OP increase (500 m.yen of moving expense for E-HARBOR in 4Q of 2015)

Semiconductor

- Yen appreciated but volume increase
- Large volume of shipment in 3Q was covered a temporary drop in 2Q (earthquake impact)
- Expected continue large volume of shipment in 4Q

Bookings trend

(Billions of yen)

	Bookings				Backlog	
	2015	2016			2016	2016
	4Q	1Q	2Q	3Q	2Q end	3Q end
Auto	16.2	12.3	14.7	18.6	42.1	49.5
P&E	4.1	3.4	4.1	3.6	4.5	4.2
Medical	7.1	7.6	6.4	5.6	3.9	3.5
Semi	6.9	9.5	9.6	10.4	4.4	5.0
Scientific	7.5	5.6	5.3	5.8	7.8	7.9
Total	42.0	38.6	40.3	44.2	63.0	70.3

3Q Bookings
3Q Backlog

Semi hit Record-high, Auto was recovered
Increased even in a yen appreciation trend






Full Year Forecast

(Billions of yen)

	Jan.-Sept.		Jan.-Dec.				
	Results		Results	2016 Forecast			
	2015	2016	2015	Fore. as of May 11	Previous Fore. as of Aug. 3	Forecast	vs Fore. as of Aug. 3
Sales	120.3	116.9	171.9	175.0	170.0	170.0	-
O.P.	13.8	10.6	20.1	17.5	17.5	17.5	-
Ordinary profit	13.4	10.3	19.6	16.5	17.0	17.0	-
Net Income attributable to Owners of Parent	8.6	7.2	13.2	10.8	10.8	10.8	-
Dividend (Yen)			70	75	75	75	

No change in P&L and dividend from previous forecast.

2017 market environment

<p>Auto</p>		<p>Expect steady R&D investment by automotive manufacturers thanks to a tightening of emission regulations in EU/Japan and RDE in EU.</p>
<p>P&E</p>		<p>U.S.: Expect firm investment demand from petrochemical companies. China: Closely monitor in demand is likely due to the new regulation from 2016.</p>
<p>Medical</p>		<p>Japan: Continuing favorable sales to doctors in private practice. Overseas: Closely monitor of medical budget decrease trend.</p>
<p>Semi</p>		<p>Impact from miniaturization and multi patterning of semiconductor production processes. Closely monitor of transition trend to the next generation production process.</p>
<p>Scientific</p>		<p>Japan: Expect an increase in the private sector capital spending. Overseas: Closely monitor government budgets and spending in EU and the U.S.</p>

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Nine Months Results and Forecast for 2016

(Billions of Yen)

2016 Nine Months Results

- EMS + Steady R&D investment by auto manufacturers
- MCT - Decrease in sales and profit in Japan and EU
- ECT + Incremental sales due to acquisition of MIRA

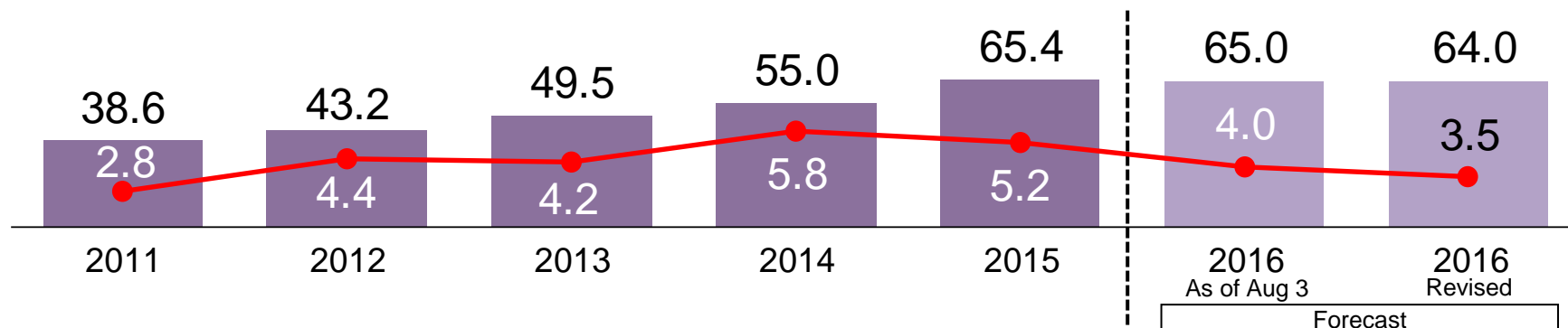
	2016 Nine Months Sales (prior year)
EMS	25.1 (25.2)
MCT	7.4 (12.2)
ITS	1.2 (1.2)
ECT	5.5 (2.0)

2016 Full-Year Forecast

- EMS + Sales to grow toward year-end
- MCT - Downward revision. Expect a rebound in 2017
- ECT - Sales decrease in yen terms.

	2016 Full-year Forecast Sales(prior year)
EMS	41.4 (39.8)
MCT	13.7 (19.7)
ITS	1.7(1.7)
ECT	7.2 (4.2* half year)

Sales and O.P. (Full-year) Sales O.P.



EMS Business

Solid sales in Japan (automakers, parts makers)

➡ Steady investment in Japan

WLTP*(unified emission regulations by the UN)

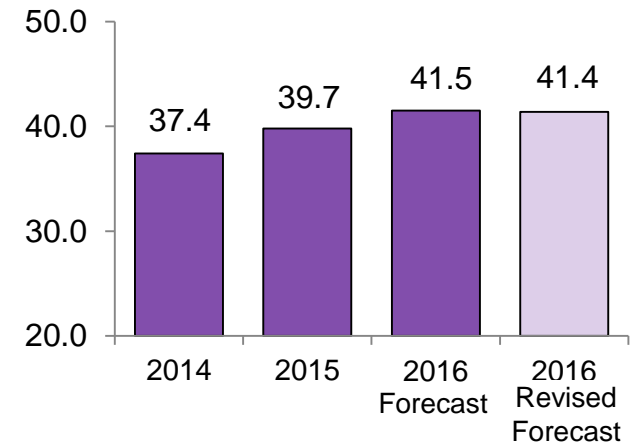
➡ Start in Sep. 2017 in EU and in 2018 in Japan

RDE (Real Driving Emission; on-road test) regulation

➡ Start in Sep. 2017 in EU

*WLTP: Worldwide-harmonized Light-vehicles Test Procedure

EMS Sales (Billions of Yen)



HORIBA BIWAKO E-HARBOR in full operation

Open: May 2016

Location: Shiga Prefecture

Function: - Development and production base of gas measurement technologies
 - Automotive testing laboratory

Objectives: Improve profitability with production efficiency; accelerate development



Automotive testing laboratory

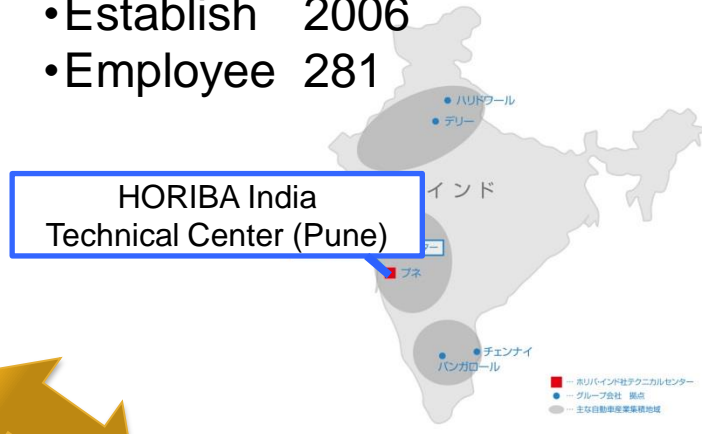
Auto Investment in Emerging Countries

Opening HORIBA India Technical Center (Pune) in Nov. 30, '16



HORIBA India Private, Ltd.

- Establish 2006
- Employee 281



- 9th Automotive Test Laboratory in HORIBA Gr.
- Coordination with Biwako E-HARBOR
 - > Providing global R&D support
- Comprehensive facility including Product demonstration, Testing, Workshop and so on.



Sales Target in 2020 (Auto, India) : 3.0bn yen (1.5times from 2015)

Auto

46th Machinery Design Award's Grand Prix

Portable Emission Measurement Systems(OBS-ONE Series)



“Machinery Design Award”

- ◆ Prestigious design award given to industrial products
- ◆ Received the Minister of Economy, Trade and Industry Award (Grand Prix) for the first time

Portable Emission Measurement Systems



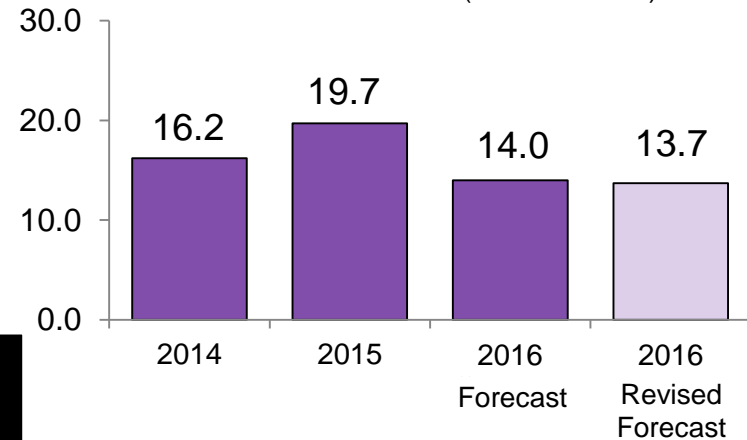
MCT Business (Mechatronics)

- Sep. 2017: WLTP/RDE regulations to start in EU
 ➔ Auto manufactures investment in 2016 is sluggish
- Strategic projects are increasing in China
 ➔ Aim to receive orders for market share expansion
 Profit is temporarily decreasing

From 2017

Expand turn-key projects and pursue synergies with the EMS business

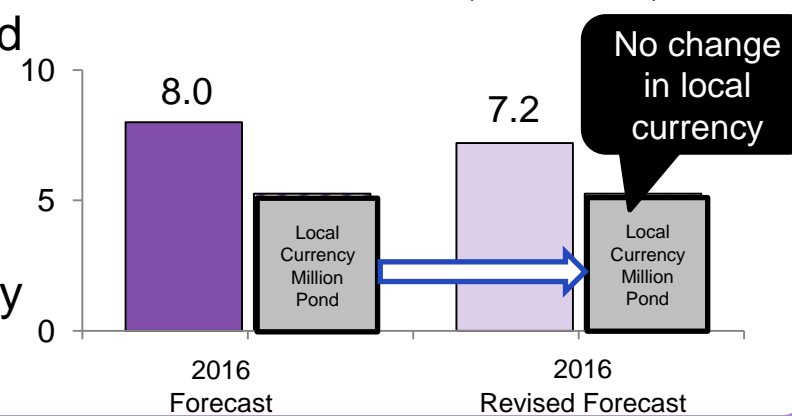
MCT Sales (Billions of Yen)



ECT Business (Engineering/HORIBA MIRA)

- Sales decreased due to the strong yen/weak pound
- Brexit impacts to be closely monitored
 ➔ Continue investment in HORIBA MIRA
 ✓ Some investment projects will be carefully considered

ECT Sales (Billions of Yen)



Nine Months Results and Forecast for 2016

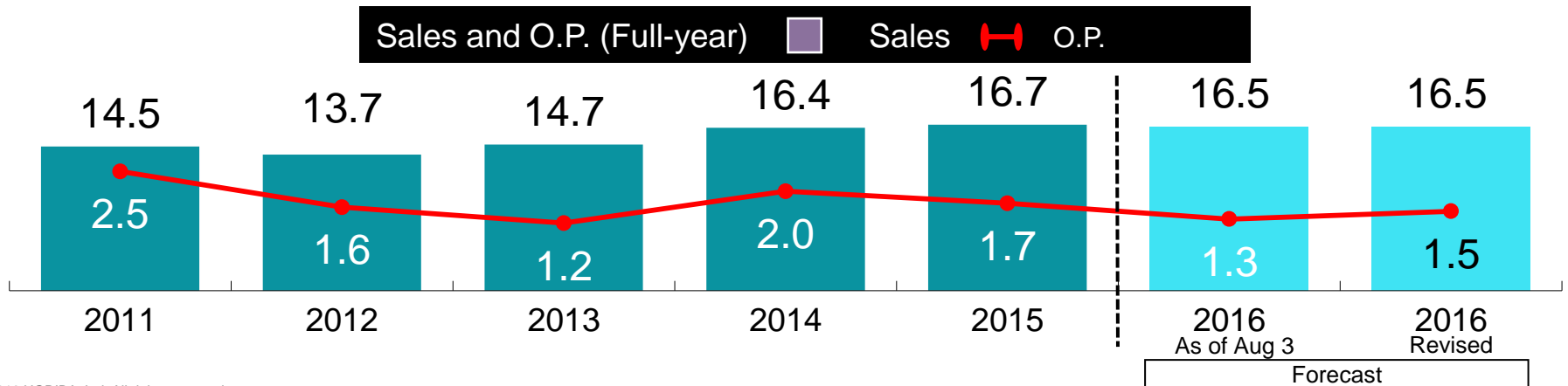
(Billions of Yen)

2016 Nine Months Results

- Weak sales of stack gas analyzers in Asia (mainly in China)
- Weak sales of water measurement systems in Japan

2016 Full-Year Forecast

- + Expect firm investment by semiconductor manufacturer in Asia
- New regulation began in China in 2016 → Sales may temporarily depress in the cautious market
- + Water measurement systems to the government/private sectors → Aim for replacement demand



Shift from product sales to system sales

Expand business opportunity by providing business solutions

Case of the process analytical measurement business in Texas, U.S.

Oil refining/
petrochemical
plant makers

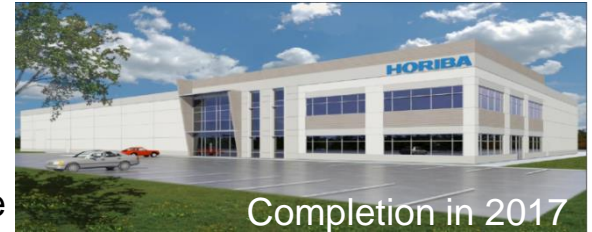


Target: Oil refining and petrochemical plant companies

HORIBA: Sales of systems that combine gas or water analyzers

Sales: Approximately 1.5bn yen (results in 2015)

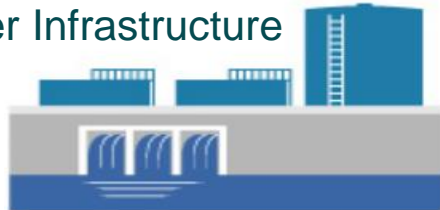
Plan: Relocate and expand the base in Texas



Blueprint of new Texas base

Measurement device sales → Also promote solution proposals with products in other markets

Water Infrastructure



Environment Policy



Electronics/Energy



Revised anti-pollution act: VOC regulations

Details: Regulations on source of VOC (Volatile Organic Compounds)

Start: 2016

Shanghai city preceded other regions in adopting the regulations.

➔ Gradually expand industries to cover by Jan. 2017

➔ The market takes wait-and-see attitude to the regulations.

HORIBA

has prepared the product line-up
to fully respond to VOC
regulations in Shanghai

Hydrocarbon Analyzer



Application

THC, NMHC, and CH₄ in
ambient air

Nine Months Results and Forecast for 2016

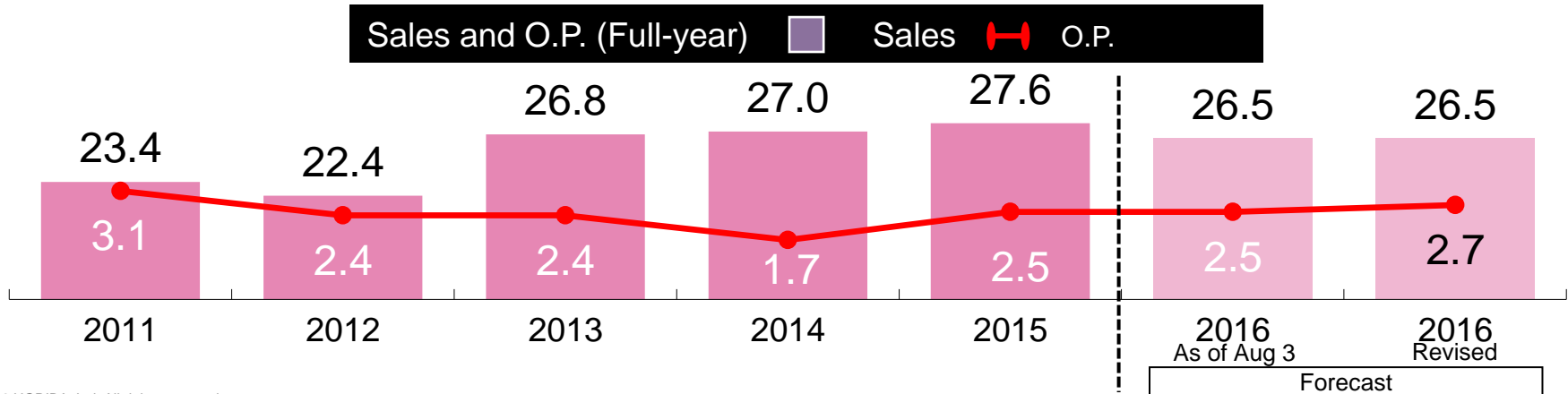
(Billions of Yen)

2016 Nine Months Results

- Sales decrease in yen terms due to appreciation of yen
- + Firm sales of Hematology and CRP analyzers in Japan

2016 Full year Forecast

- Expect cost increase due to FDA approval expenses and new product promotion expenses
- + Firm sales of Hematology and CRP analyzers in Japan



Accelerating product development

Accelerating development
by sharing technology of HORIBA bases in Japan and France



New brand “Yumizen” (medium-sized)
Launched in July 2015 (in EU)
 Medium/large-sized hematology analyzers
 Target hospitals and diagnosis centers

“Microsemi LC-767CRP” (small-sized)
Launched in March 2015 (in Japan)
 The latest version of Blood cell + CRP analyzers
 Measure all items in 4 minutes.
 Use of a small amount of blood makes it optimal for diagnosis of children.



The first global brand product
“Yumizen”



Microsemi LC-767CRP

Medical Expanding product line-up

Alliance with JEOL Ltd. to sell clinical chemistry devices in EU and U.S.



Outline: OEM sales of automatic biochemistry analyzers
Target: Hospitals and diagnosis centers in EU and U.S.
Release: In the EU market in 1Q of 2017
Objective: Increase products for the biochemical test market, so as to expand business in EU and U.S.

Alliance with Tosoh Corporation to sell HbA1c measuring devices in Japan



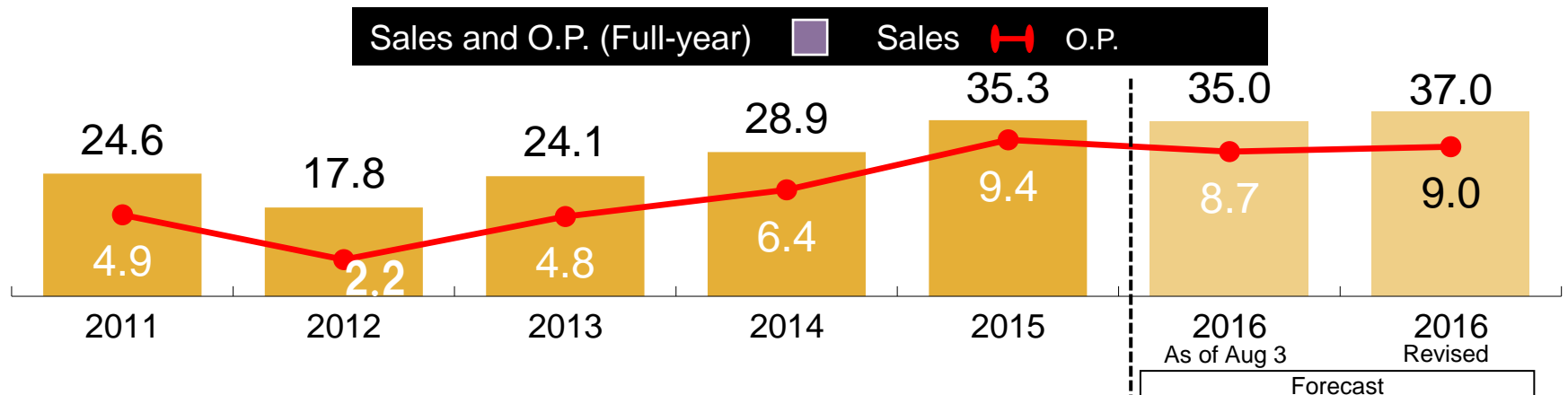
Outline: Sales of diabetes diagnosis devices
 (measurement of HbA1c)
Target: Clinics specialized in diabetes in Japan
Release: June 2016
Objective: Provide total solutions to diagnose diabetes by combining small-sized glucose analyzers and automated blood cell counters

2016 Nine Months Results

- Sales decrease in yen terms due to the weaker U.S. dollar
- Aso Factory's damage from the Kumamoto earthquake in April 2016
- + Expansion in demand of investment from semiconductor manufacturers

2016 Full-Year Forecast

- Sales decrease in yen terms due to the weaker U.S. dollar
- + Expect continuous investment by semiconductor manufacturers in Asia
- + Record-high monthly production volume of mass flow controllers in June



Aso Factory's Investment for expansion / Mass flow controller (MFC) market share

Investment in the Aso Factory

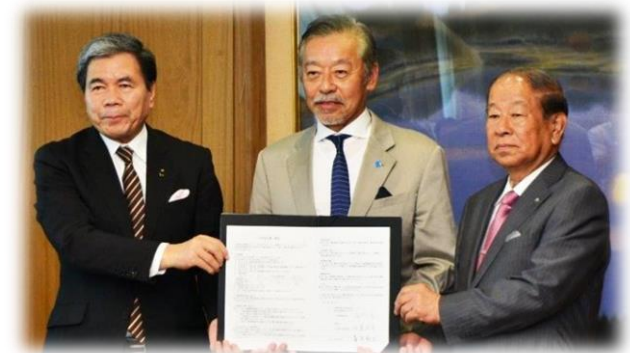
Outline: Expansion of HORIBA STEC's Aso Factory

Amount: 2.2bn yen

Groundbreaking: December 2016

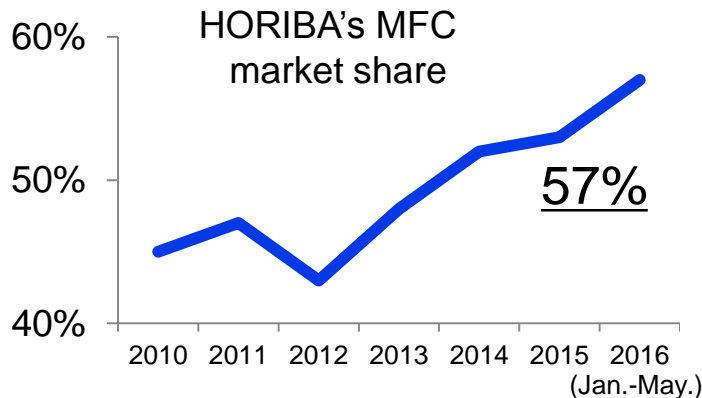
Purpose: Improve production capacity of MFC

The first company which made an investment agreement with Kumamoto Prefecture after the earthquake



Signing ceremony with Nishihara-mura (at Kumamoto prefectural office on July 30)

Mass flow controller market trend and share



<Market trend>

Miniaturization, 3D-NAND, double-patterning

↳ Brisk investment ↳ Increase in demand for etching devices

<HORIBA>

Establish a supply system of MFC with embedded cutting-edge "differential pressure sensors"

Nine Months Results and Forecast for 2016

(Billions of Yen)

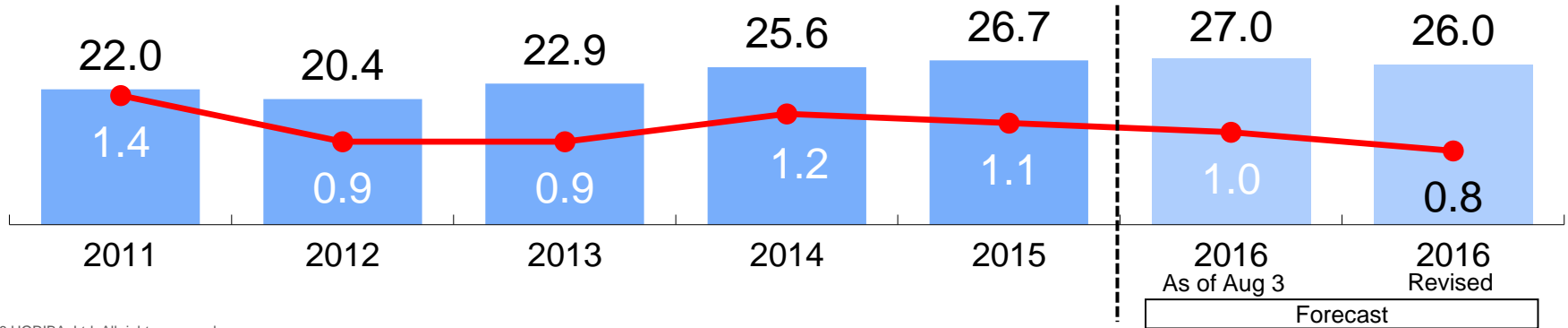
2016 Nine Months Results

- Sales decrease in yen terms due to the appreciation of yen
- Weak sales to universities in U.S.

2016 Full-Year Forecast

- Sales decrease in yen terms due to the appreciation of yen
- + Seek to explore new markets with customized products

Sales and O.P. (Full-year) Sales O.P.



HORIBA products play an active part in space

HORIBA Gratings Business

- Core parts of spectroscopy devices
- Top market share in the world
- Developed by [HORIBA Jobin Yvon](#) (France)

Gratings' consolidated sales
3.4bn yen
(2015 results)



Loaded on several space probes, incl. Juno which orbited Jupiter

- Has developed gratings for space experiment for nearly a half century
- Contributed to several countries' space development projects
- HORIBA's grating product has been loaded on over 20 space probes up to now



HORIBA's products were loaded on NASA's Juno space probe.

Integrate water measuring resources to HORIBA Advanced Techno Ltd. (Kyoto)

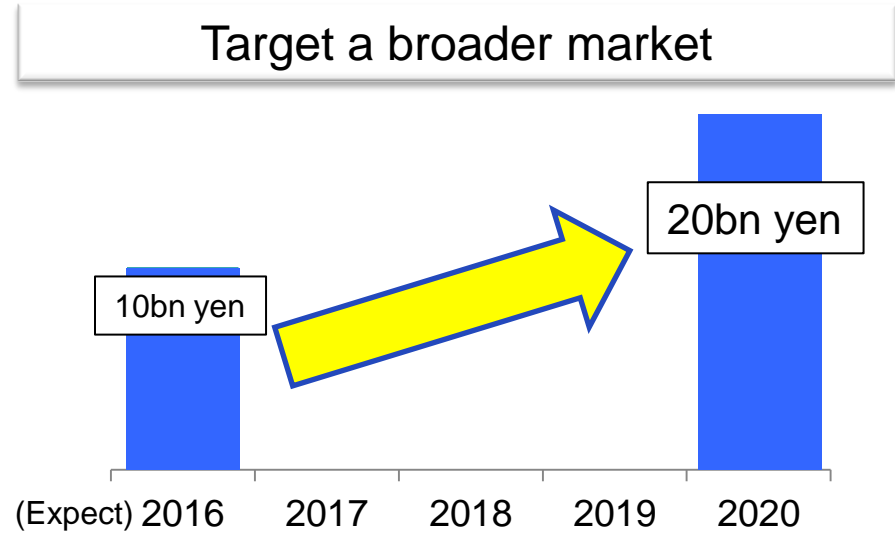
Jan. 2017

The water business of HORIBA, Ltd. will be succeeded to

HORIBA Advanced Techno

(by simplified absorption-type company split)

- Develop products closer to the market
- Improve customer satisfaction



<Existing target markets>

P&E: Factory wastewater; water and sewerage

Semi: Process management in factory

Scientific: Private labs and universities

<Future target markets>

1) Reinforce the present strong areas

2) Target the entire water flow cycle:

Water supply ⇒ industrial processes

⇒ wastewater ⇒ sewerage

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Shareholder Return

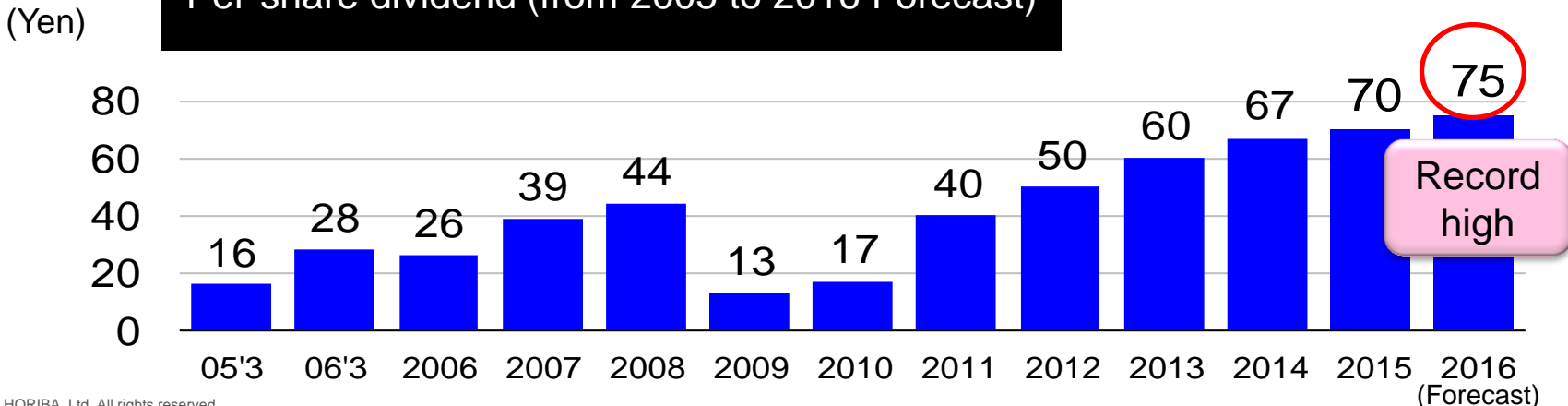
Basic policy

- Dividend payment + Share buyback = 30% of Consolidated net profit to be targeted
- Remaining earnings are retained internally for strategic investment (i.e., facilities, M&A)

Dividends and Share buybacks

- 2014 Results 67 yen per share
- 2015 Results 70 yen per share + Share buybacks (0.99bn yen)
- **2016 Forecast 75 yen per share (No change from previous forecast)**

Per-share dividend (from 2005 to 2016 Forecast)



Symbol of MLMAP2020



ONE STEP AHEAD - To create a next stage of HORIBA -

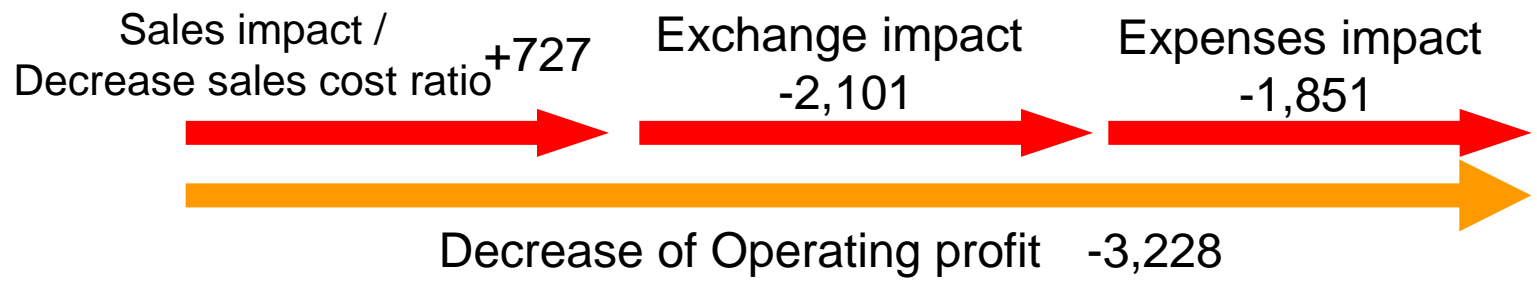
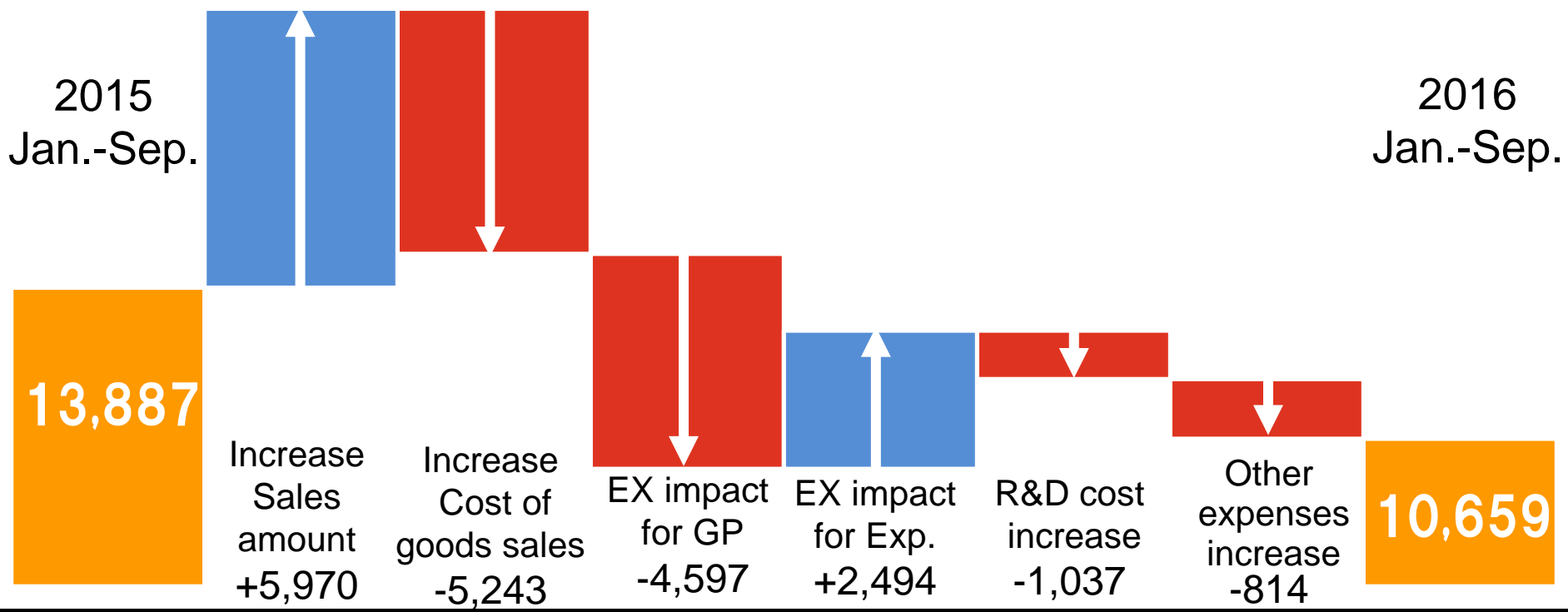
Step out of the existing business fields and pursue further expansion.
Take a new perspective and overcome technological/market/organization barriers.
Be flexible, think outside the box, and move up to the next stage.

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Operating profit analysis (vs. 2015)

(Millions of Yen)



※2015 results are restated numbers. The same shall apply hereinafter

Capital Investment, Depreciation, R&D

(Billions of Yen)

		2014	2015	2016			Previous Forecast (12months)
		12months Results	12months Results	Jan.-Sep. Results	Oct.-Dec. Fore.	Forecast (12months)	
	PP&E	9.1	14.9	8.5	6.8	15.3	15.3
	Intangibles	1.8	1.4	0.2	0.5	0.7	0.7
Capital Investment		11.0	16.3	8.7	7.3	16.0	16.0
Depreciation		4.9	6.1	4.9	1.6	6.5	6.5
R&D		11.9	12.3	9.4	3.6	13.0	13.0
(To net sales)		7.8%	7.2%	8.1%	6.7%	7.6%	7.6%

No change from previous forecast.

Impact of fluctuation in foreign exchange

Exchange rate impact (2016 Nine Months Results)

(Millions of Yen)	Sales			
	Total	USD	EUR	GBP
Auto	-3,401	-723	-928	-1,479
P&E	-643	-305	-104	-22
Medical	-1,899	-566	-886	-62
Semi	-2,013	-1,368	-110	-7
Scientific	-1,472	-757	-551	-100
Total	-9,430	-3,721	-2,581	-1,672

(Millions of Yen)	Operating Profit			
	Total	USD	EUR	GBP
Auto	-42	-148	-4	99
P&E	-214	-68	-52	-10
Medical	-237	-103	90	-10
Semi	-1,541	-1,198	-95	70
Scientific	-65	-38	4	-74
Total	-2,101	-1,557	-58	75

Exchange rate for 2016 Forecast
 USD/JPY:107 , EUR/JPY:120
 (4Q : USD/JPY:102, EUR/JPY:115)

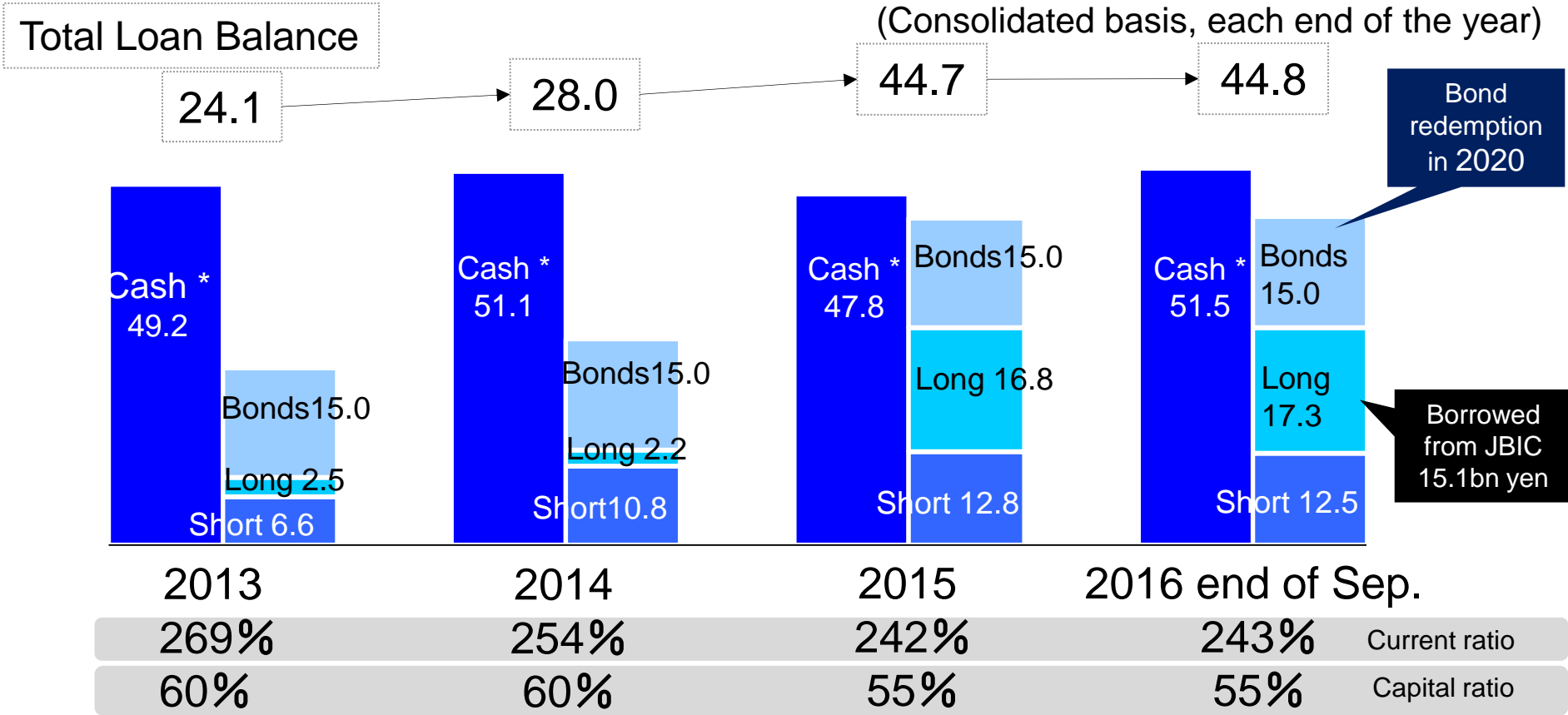
Exchange rate impact
 for 2016 Forecast
 1 yen impact of Sales and O.P.
 (Yen appreciation)

Sales
 USD -420 millions of yen
 EUR -317 millions of yen
 GBP -69 millions of yen

Operating Profit
 USD -175 millions of yen
 EUR -22 millions of yen
 GBP -1 millions of yen

Cash Balance

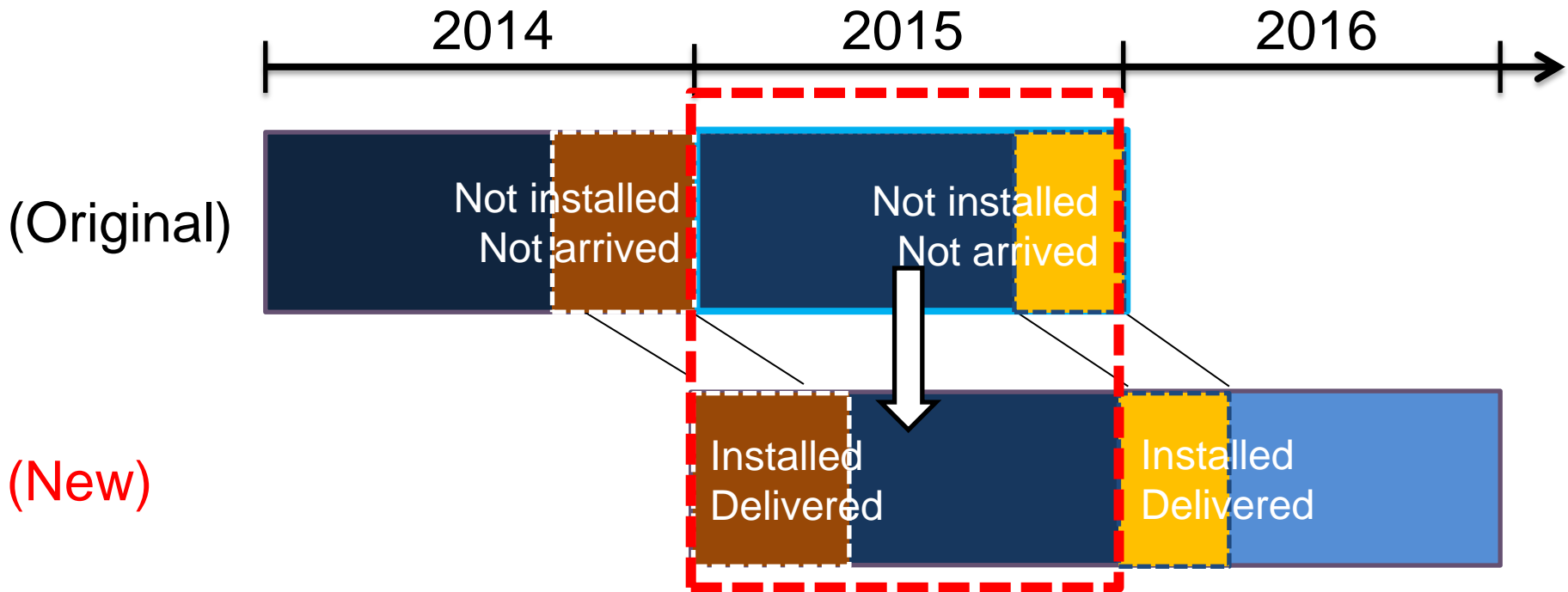
(Billions of yen)



- Conclusion of liquidation of receivable contract with 2 banks.
- Recent issuer rating : R&I [A-] (July 2016), JCR [A] (September 2015)

Cash*...Cash and Cash Equivalents at End of Period

Changed the accounting policy for revenue recognition



Changed points: Original Shipment base
 New The date of delivery or installation based on contractual arrangements

Applied timing: January 2016

Reason for change: Triggered by the introduction of a new ERP implementation, to harmonize with international accounting standards.

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Corporate Profile

- Head office Kyoto, Japan
- Founded 1945
- Incorporated 1953
- CEO Atsushi Horiba
- Fiscal year end December 31

Atsushi Horiba
President & CEO



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- Corporate motto -

JOY and FUN

To have interest and pride
in our work to enjoy our lives



Business Segments



Automotive Test Systems

- Emission Measurement Systems (EMS)
- Mechatronics Devices (MCT)
- Driving Control Systems (ITS)
- Engineering Consultancy & Testing (ECT)



Process & Environmental

- Environmental Systems
- Environmental Radiation Monitor
- Environmental Regulation & Process Business



Medical

- In-Vitro Diagnostic (IVD) Systems
- Integration of HORIBA ABX's Technology & Marketing Know-How



Semiconductor

- Mass Flow Controller
- In-situ Analysis
- Synergy among HORIBA HQ, HORIBA STEC and HORIBA Jobin Yvon's Technologies



Scientific

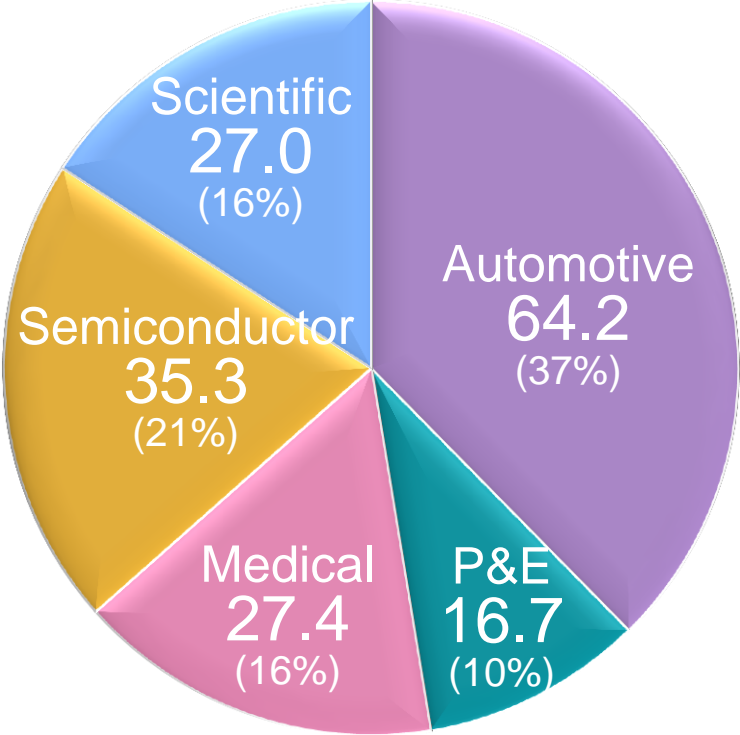
- Synergy of HORIBA and HORIBA Jobin Yvon's Technologies
- Raman, Grating, and Fluorescence



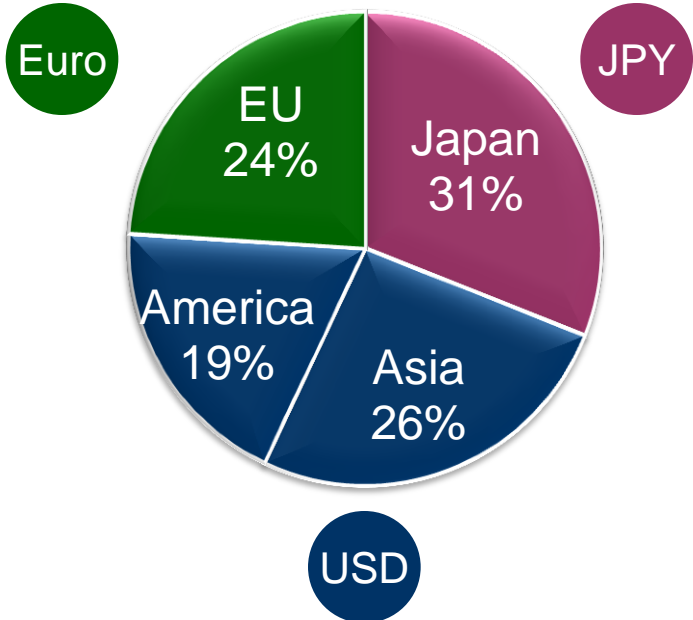
Well Balanced Business Operation -Five Business Segments-

Business & Geographic Composition of Sales(2015)

Sales 170.8 Billions of Yen



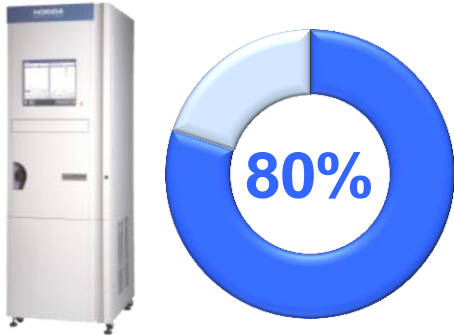
(Billions of Yen)



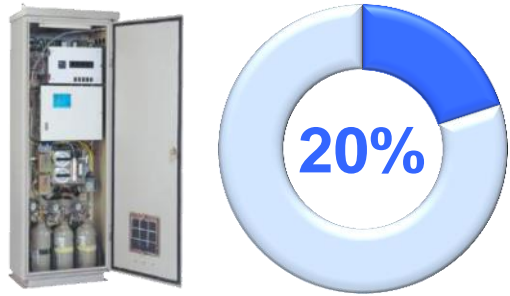
Reduce Country Risk and Exchange Risk

Global Market Share

Emission Measurement Systems



Stack Gas Analyzers

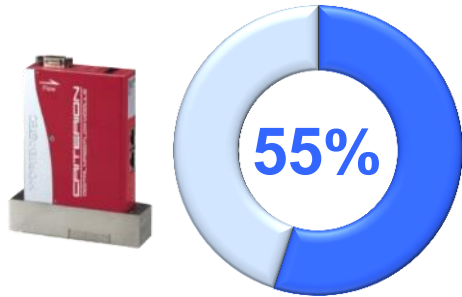


Automatic Blood Cell Counter plus CRP

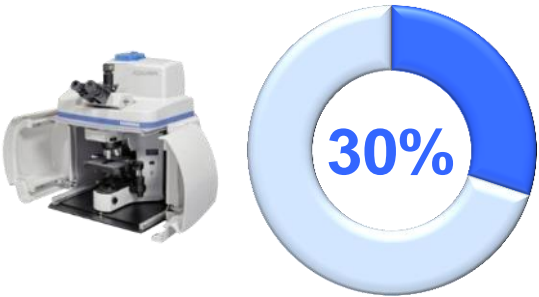


(Only in Japan)

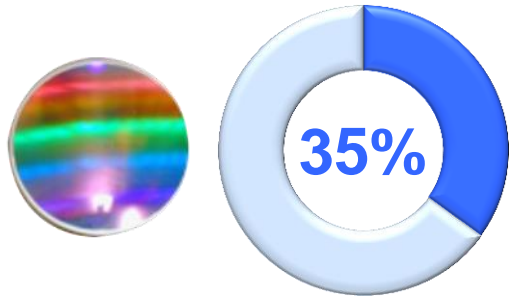
Mass Flow Controllers



Raman Spectrophotometers



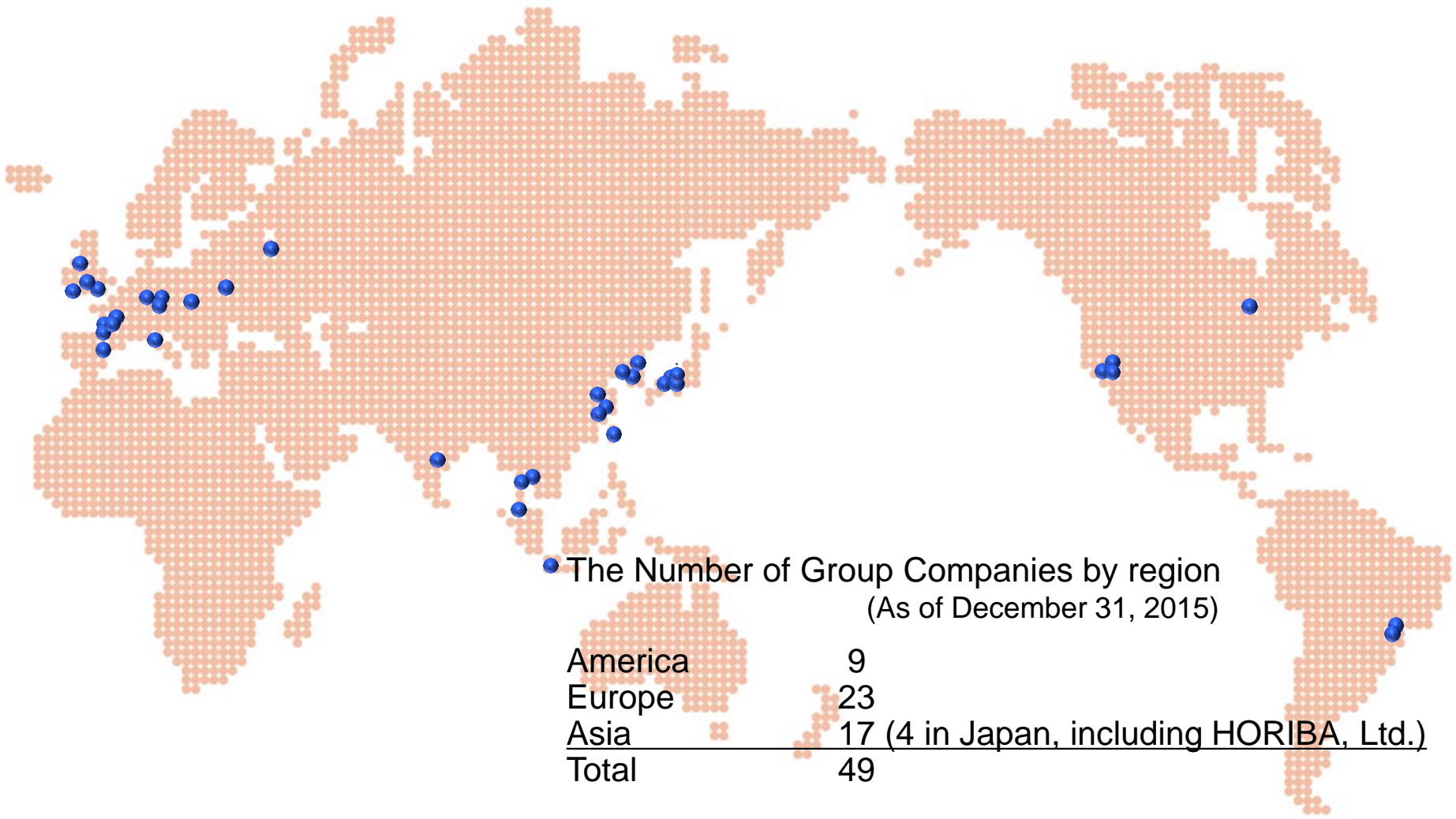
Gratings



※Market shares quoted are estimates by HORIBA.

HORIBA Worldwide

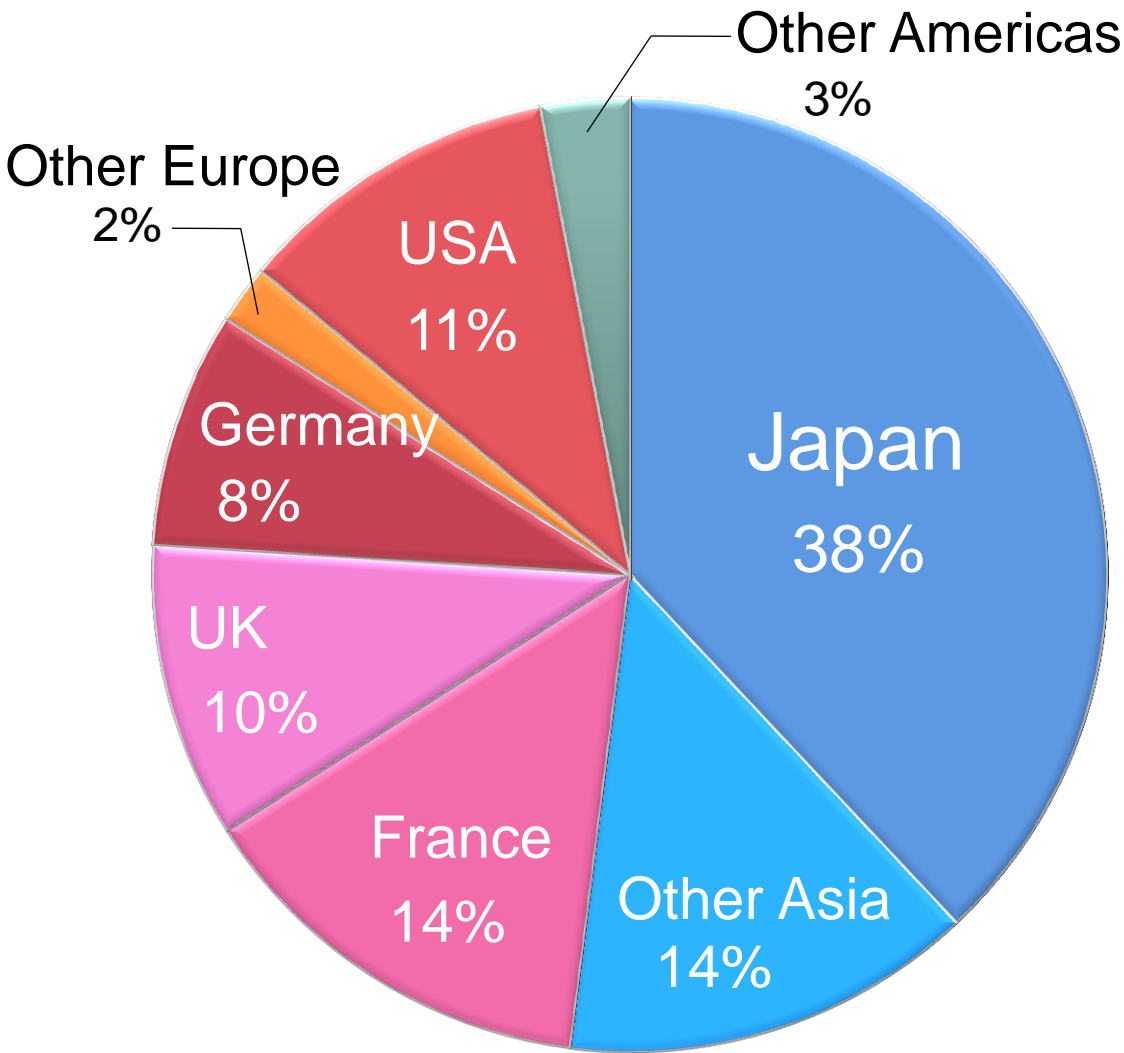
Sales of FY2015: 170.8 BJPY



• The Number of Group Companies by region
(As of December 31, 2015)

America	9
Europe	23
Asia	17 (4 in Japan, including HORIBA, Ltd.)
Total	49

Employees by Region



Total Number of Employees

6,831

Total Asia: 3,545

52%

Total Europe: 2,356

34%

Total Americas: 930

14%

Thank you very much for your attention.