

Nomura Investment Forum 2019 Financial Information

HORIBA, Ltd.

December 2, 2019

Contents

- 2019 First Half / 3Q Results
- 2019 Forecast
- Outlines by Business Segments
- Shareholder Return
- Other Topics
- Financial Data
- Corporate Profile

Review of 2019 First Half

<h2>External Events</h2>	<ul style="list-style-type: none"> ◆ The accelerating US-China trade conflict and the deteriorating Japan-South Korea relationship ◆ Intensified Brexit uncertainties ◆ Slowdown in capital spending for semiconductors ◆ Automotive electrification trend and tighter emission regulations
<h2>Internal Events</h2>	<ul style="list-style-type: none"> ◆ Continually-enhanced R&D bases on a global level ◆ Aggressive launch of new products ◆ Selected as a “Nadeshiko Brand” and for the “Health & Productivity Stock Selection Program” by METI and the Tokyo Stock Exchange <div style="text-align: right;">   </div>

Summary of 2019 First-Half Results

Significant year-on-year decrease in sales and profit due to a slowdown of the Semiconductor segment

P&L

- ◆ Year-on-year decrease in sales and profit of the Semiconductor segment
- ◆ Decline in profitability of the Automotive segment due to a change in geographical sales mix and other factors

B/S

- ◆ Total assets were ¥273.6bn, down ¥3.6bn, mainly due to collection of accounts receivable
- ◆ Total liabilities were ¥111.6bn, down ¥3.6bn, mainly due to decrease in accounts payable and loan repayment
- ◆ Equity ratio: 58.9% (Compared to the end of Dec. 2018)

CF

- ◆ Operating CF: Cash in ¥13.8bn due to operating profit and collection of accounts receivable
 - ◆ Investing CF: Cash out ¥4.2bn due to acquisition of tangible fixed assets
 - ◆ Financial CF: Cash out ¥7.2bn due to dividend payment
- } Free CF +¥9.5bn

2019 First Half Results

(Billions of Yen)

	2018 1st Half	2019 1st Half			
	Results	Forecast (as of Feb.12)	Results	vs 2018	vs Forecast
Sales	99.9	96.0	91.6	- 8.3	- 4.3
Operating Profit	14.0	10.5	8.2	- 5.7	- 2.2
OP %	14.1%	10.9%	9.0%	-5.1p	-1.9p
Ordinary Profit	13.7	10.3	8.0	- 5.6	- 2.2
Net Profit attributable to Owners of Parent	10.5	7.0	5.7	- 4.7	- 1.2
USD / JPY	108.67	110.00	110.06	+1.39	+0.06
EUR / JPY	131.55	125.00	124.32	-7.23	-0.68

2019 First Half Results by Segment

(Billions of Yen)

★ : Record-high	Sales					Operating Profit				
	2018 1st Half	2019 1st Half				2018 1st Half	2019 1st Half			
	Results	Forecast (as of Feb. 12)	Results	vs 2018	vs Forecast	Results	Forecast (as of Feb. 12)	Results	vs 2018	vs Forecast
Auto	32.7	36.0	★ 34.3	+1.6	-1.6	2.4	3.0	1.5	-0.8	-1.4
P&E	9.2	10.0	9.1	-0.0	-0.8	0.8	1.0	0.6	-0.2	-0.3
Medical	13.1	14.0	12.6	-0.4	-1.3	1.0	1.0	0.7	-0.2	-0.2
Semi	32.3	23.0	22.7	-9.6	-0.2	10.2	5.5	5.3	-4.8	-0.1
Scientific	12.5	13.0	★ 12.6	+0.1	-0.3	-0.5	-	-0.0	+0.4	-0.0
Total	99.9	96.0	91.6	-8.3	-4.3	14.0	10.5	8.2	-5.7	-2.2

2019 3Q (Jan.-Sep.) Results

(Billions of Yen)

	2018 3Q	2019 3Q	vs 2018
	Results	Results	
Sales	146.0	137.0	- 9.0
Operating Profit	17.8	12.0	- 5.8
OP %	12.2%	8.8%	-3.4p
Ordinary Profit	17.5	11.5	- 5.9
Net Profit attributable to Owners of Parent	13.4	8.4	- 5.0
USD / JPY	109.60	109.12	-0.48
EUR / JPY	130.87	122.62	-8.25

(by Segment)

	Sales			Operating Profit		
	2018 3Q	2019 3Q	vs 2018	2018 3Q	2019 3Q	vs 2018
	Results	Results		Results	Results	
Auto	48.3	52.0	+3.7	1.7	2.7	+1.0
P&E	13.4	13.8	+0.3	1.1	0.9	-0.2
Medical	19.2	18.7	-0.5	1.3	1.0	-0.2
Semi	45.4	33.5	-11.8	14.0	7.4	-6.6
Scientific	19.5	18.8	-0.7	-0.4	-0.2	+0.1
Total	146.0	137.0	-9.0	17.8	12.0	-5.8

Contents

- 2019 First Half / 3Q Results
- **2019 Forecast**
- Outlines by Business Segments
- Shareholder Return
- Other Topics
- Financial Data
- Corporate Profile

Market Assumptions for 2019

Auto		Strong appetite for investment in the global automotive sector due to tighter emission regulations mainly in Asia and innovation for electrification & autonomous driving. Global investment slowdown
P&E		Increase in demand due to tighter environmental regulations in emerging countries Recovery in investment in the oil industry
Medical		Japan: Favorable sales to doctors in private practice Overseas: Increase in demand for blood testing equipment in emerging countries
Semi		Subdued capital spending by semiconductor manufacturers Anticipate a pick-up in investment, on the background of robust demand for semiconductor devices from a mid- to long-term perspective
Scientific		Robust corporate R&D spending Accelerating research on new materials for secondary batteries

Exchange rate

(Yen)

	2018 Results			2019							
	1sf Half	Jan.-Sep.	Full year	Forecast (as of Feb. 12)	Results					Forecast (as of Aug. 6)	Forecast (as of Nov. 11)
					1Q	2Q	1st Half	3Q	Jan.-Sep.		
USD	108.67	109.60	110.44	110	110.22	109.90	110.06	107.24	109.12	110	110
EUR	131.55	130.87	130.35	125	125.16	123.48	124.32	119.22	122.62	125	122

1 yen O.P. sensitivity for 2019 Forecast (Yen appreciation/Full year)

USD -230 million yen

EUR -20 million yen

2019 Forecast

(Billions of yen)

	2018	2019				
	Results	Forecast (as of Feb. 12)	Forecast (as of Aug. 6)	Forecast (as of Nov. 11)	vs 2018	vs Previous Forecast
Sales	210.5	218.0	213.0	207.0	-3.5	-6.0
Operating Profit	28.8	29.0	25.0	23.0	-5.8	-2.0
OP %	13.7%	13.3%	11.7%	11.1%	-2.6p	-0.6p
Ordinary Profit	28.3	28.5	24.5	22.5	-5.8	-2.0
Net Profit attribute to Owners of Parent	22.3	20.0	17.5	16.0	-6.3	-1.5
Net profit per share (Yen)	529	474	414	379	-150	-35
ROE	14.3%	11.9%	10.5%	9.7%	-4.6p	-0.8p

2019 Forecast by Segment

(Billions of yen)

	Sales						Operating Profit					
	2018	2019					2018	2019				
	Results	Forecast (as of Feb. 12)	Forecast (as of Aug. 6)	Forecast (as of Nov. 11)	vs 2018	vs Previous Forecast	Results	Forecast (as of Feb. 12)	Forecast (as of Aug. 6)	Forecast (as of Nov. 11)	vs 2018	vs Previous Forecast
Auto	79.6	85.0	85.0	83.0	+3.3	-2.0	7.7	9.0	8.0	7.0	-0.7	-1.0
P&E	19.3	20.0	20.0	20.0	+0.6	-	2.0	2.0	2.0	2.0	-0.0	-
Medical	26.0	28.0	28.0	26.0	-0.0	-2.0	1.8	2.0	2.0	1.5	-0.3	-0.5
Semi	57.7	55.0	50.0	50.0	-7.7	-	17.0	15.0	12.0	12.0	-5.0	-
Scientific	27.7	30.0	30.0	28.0	+0.2	-2.0	0.2	1.0	1.0	0.5	+0.2	-0.5
Total	210.5	218.0	213.0	207.0	-3.5	-6.0	28.8	29.0	25.0	23.0	-5.8	-2.0

Contents

- 2019 First Half / 3Q Results
- 2019 Forecast
- **Outlines by Business Segments**
- Shareholder Return
- Other Topics
- Financial Data
- Corporate Profile

First Half Results and 2019 Forecast

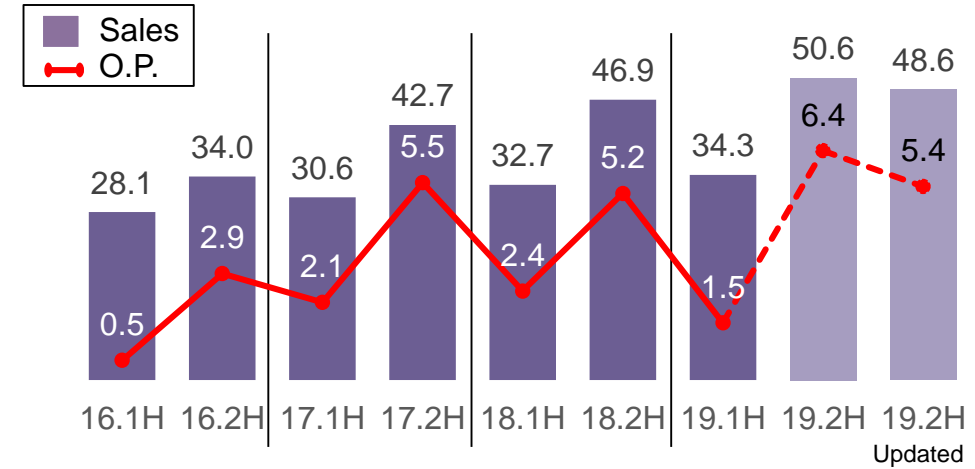
(Billions of yen)

2019 First Half Results

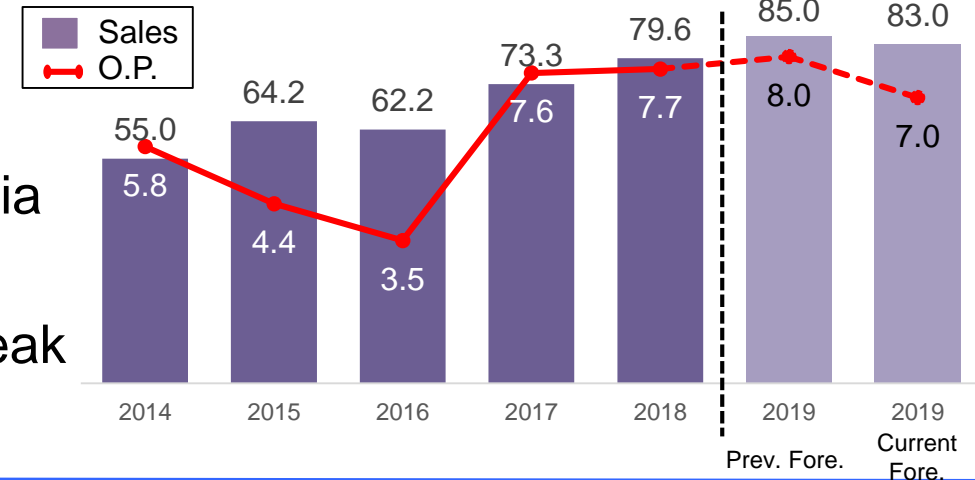
- + EMS** Higher demand in China and India, driven by adoption of new regulations
Robust demand in Europe continued even after the introduction of new regulations WLTP
- + MCT¹** Increase in projects in Japan and Europe
- + ECT²** Business expansion in the next-gen automotive technology development field

1: Mechatronics 2: Engineering Consultancy & Testing

【Half year】Sales and O.P.



【Full year】Sales and O.P.



2019 Full Year Forecast

(comment updated as of Nov. 11)

- + EMS** Weak shipment amid an economic slowdown in Asia
- + MCT** Increase in demand for fuel cell test systems
- + ECT** Aggressive investment to accelerate growth but weak sales. Operating expense on an increasing trend

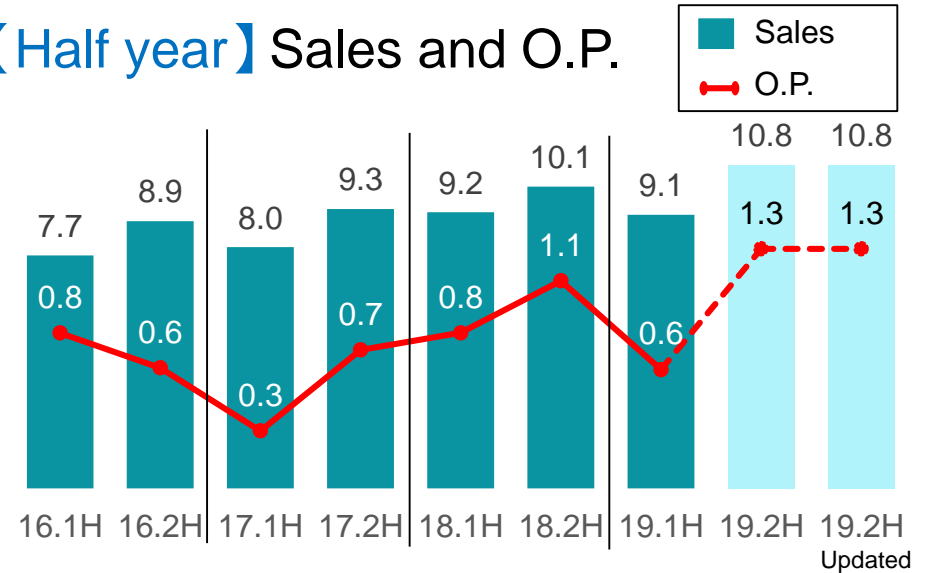
First Half Results and 2019 Forecast

(Billions of yen)

2019 First Half Results

- +** 【Stack gas analyzers】
Strong sales in Japan
- + -** 【Air quality monitoring】
Decline from last year when a large project was recorded in Asia
Increase in demand in Europe
- +** 【Water quality monitoring】
Sales increase due to business growth in emerging countries

【Half year】 Sales and O.P.

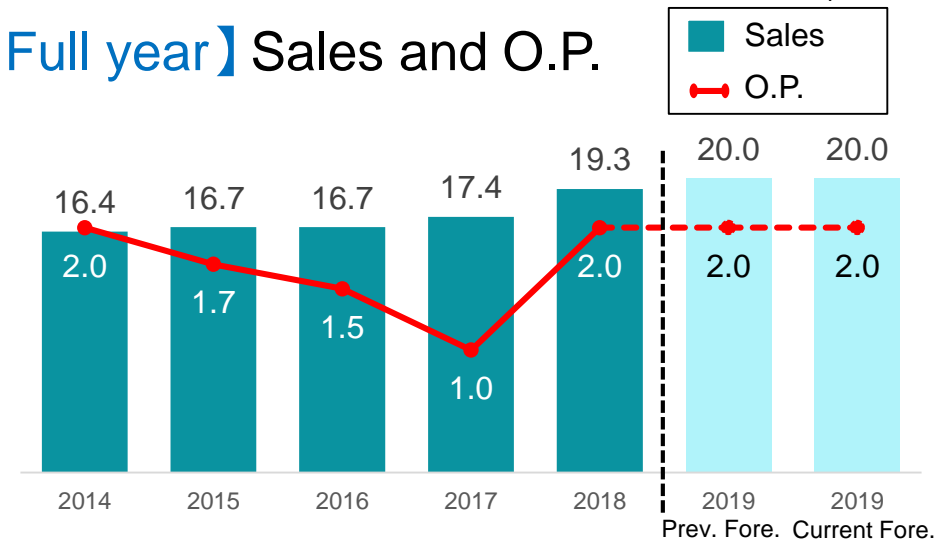


2019 Full Year Forecast

(comment updated as of Nov. 11)

- +** 【Stack gas analyzers】
Anticipate business expansion in emerging countries, including China and India
- +** 【Process measurement equipment】
Robust demand due to rising crude oil prices
- +** 【Water quality monitoring】
Robust sales of a new product, the water quality monitoring system for ships

【Full year】 Sales and O.P.



First Half Results and 2019 Forecast

(Billions of yen)

2019 First Half Results

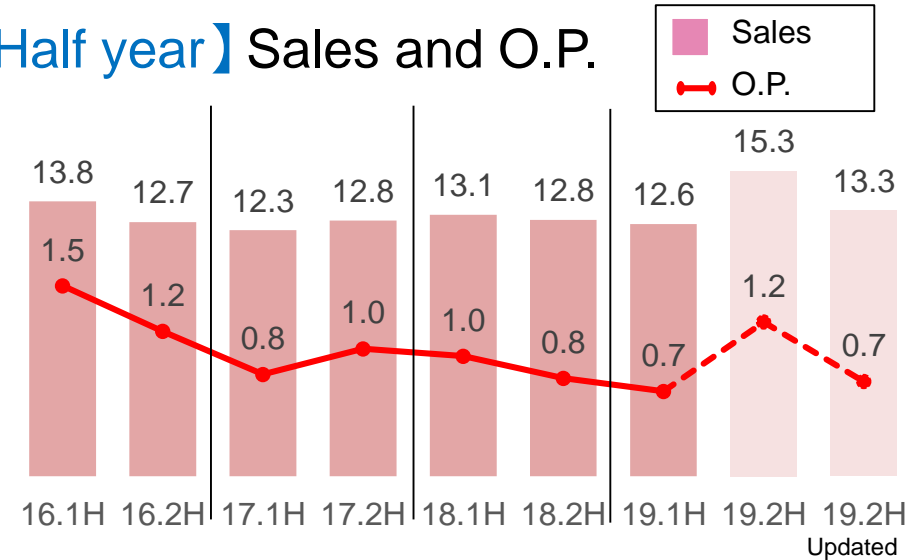
- Decrease in sales from Europe in yen terms due to the euro's depreciation against the yen
- + Business expansion in emerging countries, including China and India
- +/- Enhanced sales of the new product but new entrants in the market in Japan

2019 Full Year Forecast

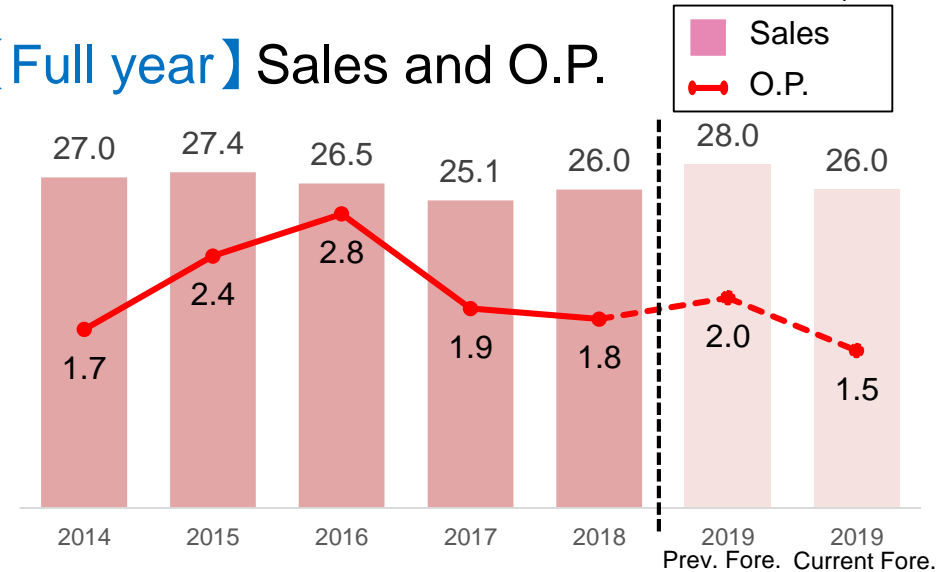
(comment updated as of Nov. 11)

- + Anticipate growth in micro-blood analysis system business, driven by a new product launch
- +/- Further business expansion in emerging countries due to an increase in demand
- +/- Operating expense on an increasing trend

【Half year】Sales and O.P.



【Full year】Sales and O.P.



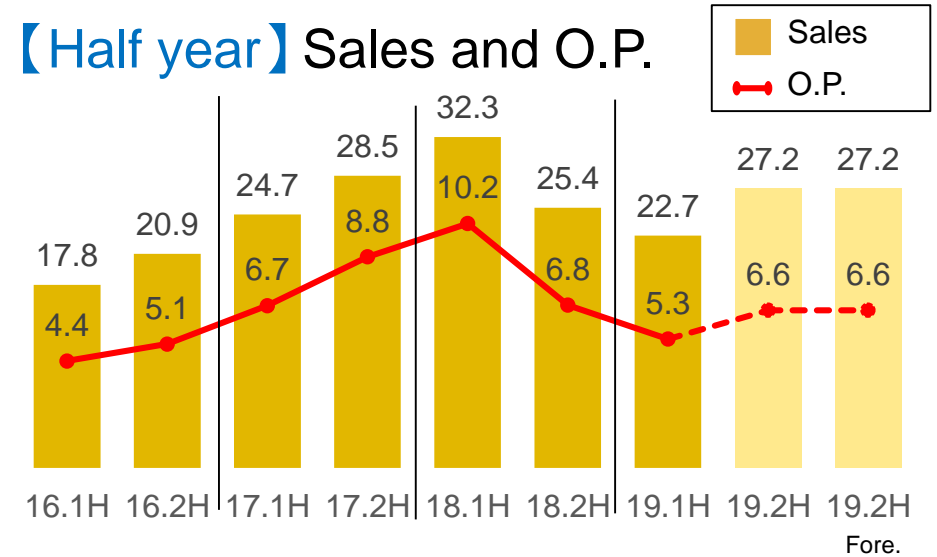
First Half Results and 2019 Forecast

(Billions of yen)

2019 First Half Results

- Decline in both sales and operating profit comparing with the previous year
- Semiconductor manufacturers' capital expenditure adjustment continued.

【Half year】 Sales and O.P.

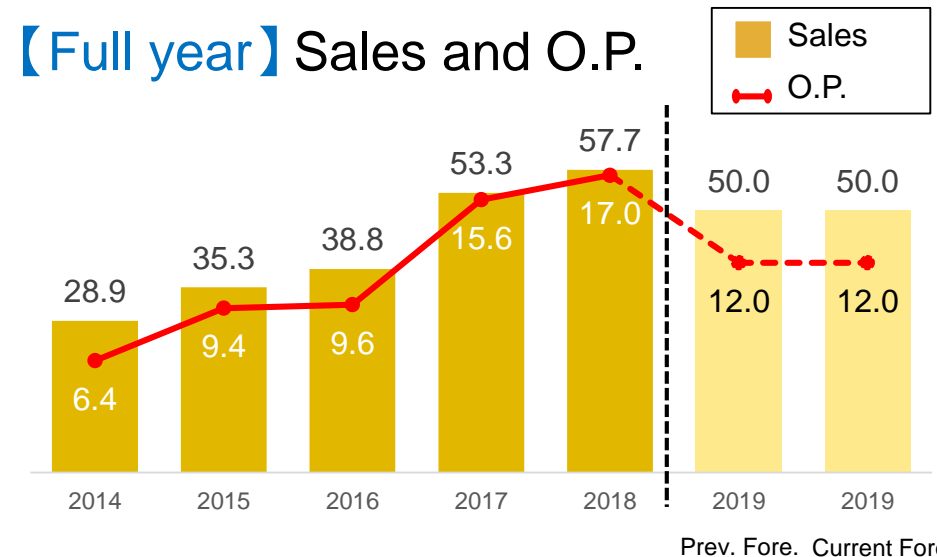


2019 Full Year Forecast

(comment updated as of Nov. 11)

- + - Anticipate the current condition to continue despite some signs of investment recovery by semiconductor manufacturers
- + Expect an increase in demand in the medium- to long-term

【Full year】 Sales and O.P.



First Half Results and 2019 Forecast

(Billions of yen)

2019 First Half Results

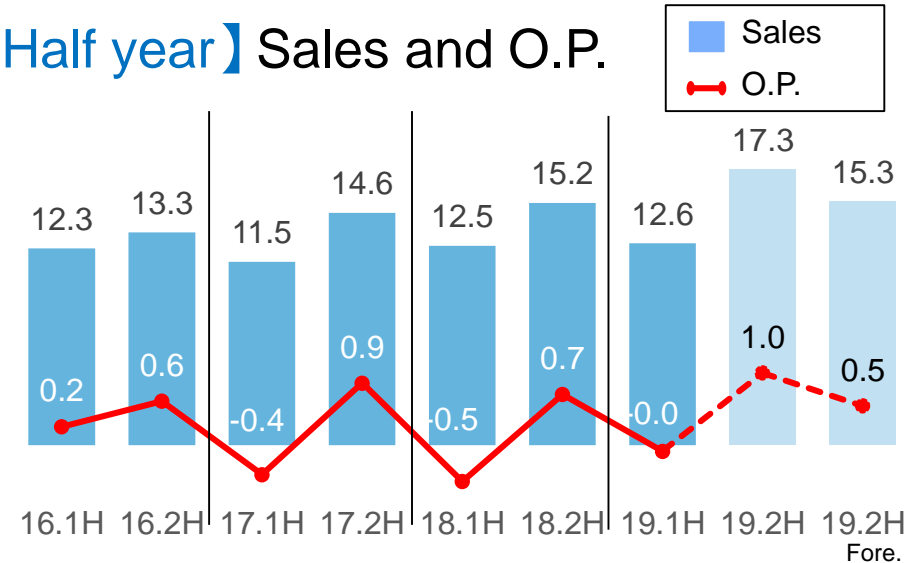
- + Sales increase in Asia and Americas on the background of robust corporate R&D spending
- + Improvement in profitability compared to last year when one-off expenses were recorded in Americas

2019 Full Year Forecast

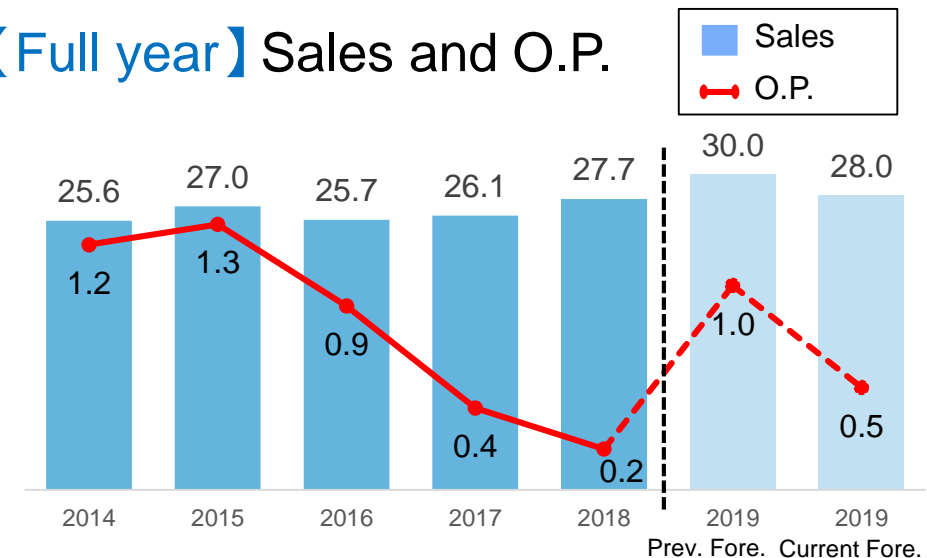
(comment updated as of Nov. 11)

- + Enhance initiatives aimed for business expansion in the materials analysis of secondary battery
- + Product customization increased, but the expense increased in order to approach new customer
- Weak sales in Asia

【Half year】Sales and O.P.



【Full year】Sales and O.P.



Contents

- 2019 First Half / 3Q Results
- 2019 Forecast
- Outlines by Business Segments
- **Shareholder Return**
- Other Topics
- Financial Data
- Corporate Profile

Shareholder Return

Basic policy

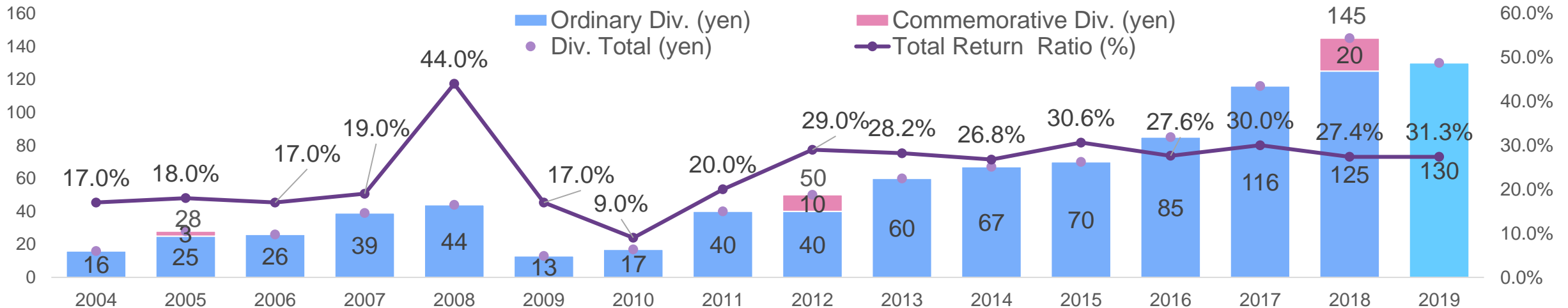
- Dividend payment + Share buyback = 30% of Consolidated net profit to be targeted
- Remaining earnings are retained internally for strategic investment (i.e. facilities, M&A)

Dividends per share and Share buybacks

- 2017 Results 116yen [Interim 40yen/Year-end 76yen]
- 2018 Results 145yen [Interim 50yen/Year-end 95yen]
- 2019 Forecast 130yen [Interim 50yen/Year-end 80yen]

Ordinary dividend: 125yen
 Commemorative dividend for the 65th anniversary of the company foundation: 20yen

Per-share dividend (from 2004 to 2019 Forecast)



Renewed record-highs in dividend in 9 years

Contents

- 2019 First Half / 3Q Results
- 2019 Forecast
- Outlines by Business Segments
- Shareholder Return
- **Other Topics**
 - Financial Data
 - Corporate Profile

Withdrawal from the ITS* business

*ITS: Intelligent Transport Systems

- Developed and provided total management systems that enabled monitoring of commercial vehicle driving information
- Commoditization of onboard devices made it hard to differentiate the products
- Will end to sell products and offer services by 2024
- Recorded non-operating income and expense in the second quarter of 2019 but the impact was immaterial.

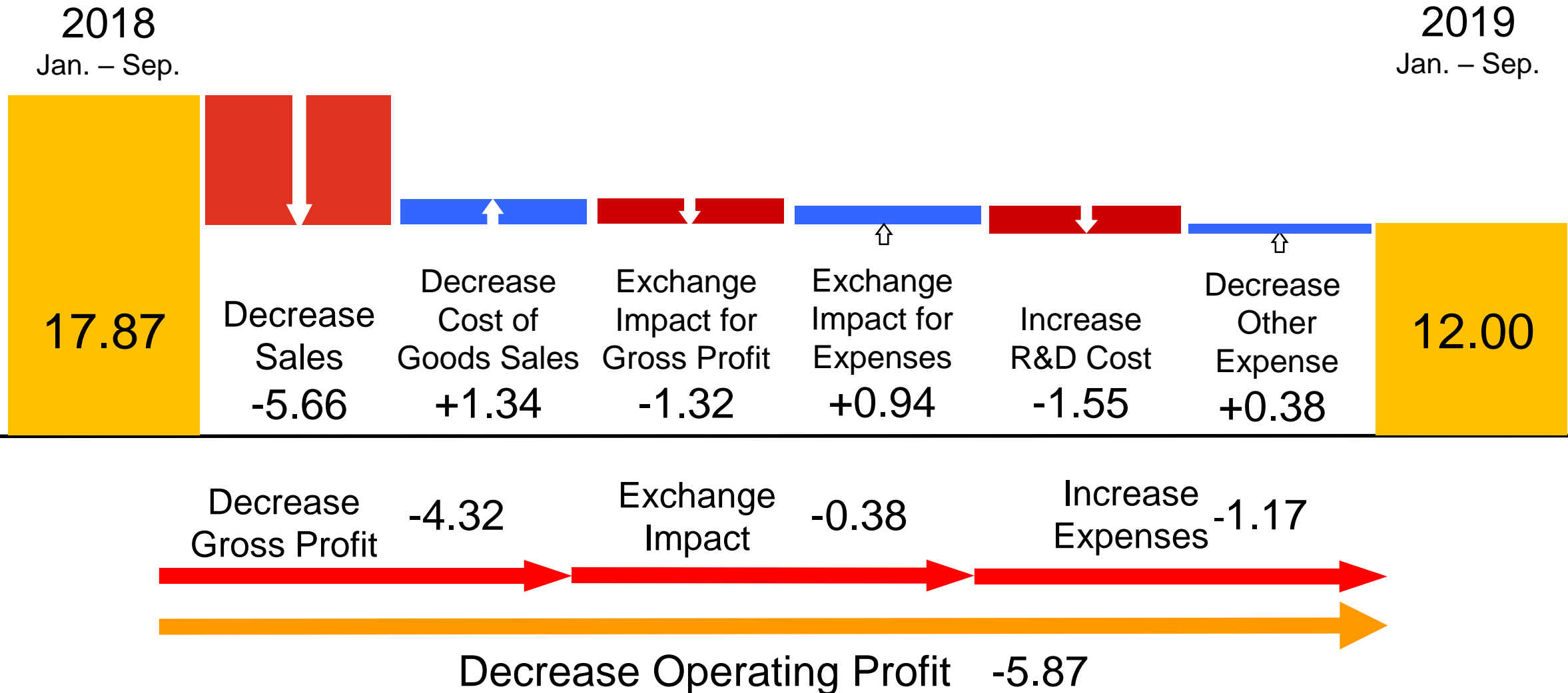
Make use of knowledge of R&D/operation of cloud system services, obtained in the ITS business, to develop new businesses.

Contents

- 2019 First Half / 3Q Results
- 2019 Forecast
- Outlines by Business Segments
- Shareholder Return
- Other Topics
- **Financial Data**
- Corporate Profile

Operating Profit Analysis (vs 2018)

(Billions of yen)



Impact of Fluctuation in Foreign exchange

(Billions of yen)

Exchange rate impact (2019 First Half results)

Sales -¥1.63bn O.P. -¥0.14bn

2019 First Half results	vs 2018
Decrease Sales	- 1.63
Decrease Cost of Goods Sales	+ 1.01
Decrease Expenses	+ 0.47
Impact to Operating Profit	- 0.14

(Yen)	2018 1st Half	2019 1st Half	Diff.
USD	108.67	110.06	+ 1.39
EUR	131.55	124.32	-7.23

Exchange rate impact

for 2019 Forecast

1 yen impact of Sales and O.P.
(Yen appreciation)

Sales

USD -¥0.44bn
EUR -¥0.37bn

Operating Profit

USD -¥0.23bn
EUR -¥0.02bn

(JPY)	2019 Forecast
USD	110.00
EUR	125.00

Capital Investment, Depreciation, R&D

(Billions of yen)

	2018	2019				2018	2019	
	Result	Forecast (as of Aug 6)	Forecast (as of Nov. 11)	vs 2018	vs Previous Forecast	3Q	3Q	vs 3Q
Capital Investment	10.2	16.0	14.0	+3.7	-2.0	7.4	8.3	60%
Depreciation	7.2	8.0	8.0	+0.7	-	5.2	6.4	81%
R&D	15.1	16.0	16.0	+0.8	-	10.9	12.2	77%
(To Net Sales)	7.2%	7.5%	7.7%			7.5%	9.0%	

2019 Topics	<p>-PP&E Enhancement of Asia bases, Investment to HORIBA MIRA, Battery evaluation testing facility (HORIBA BIWAKO E-HARBOR)</p> <p>-R&D Increase in Automotive and Semiconductor segments</p>
------------------------	---

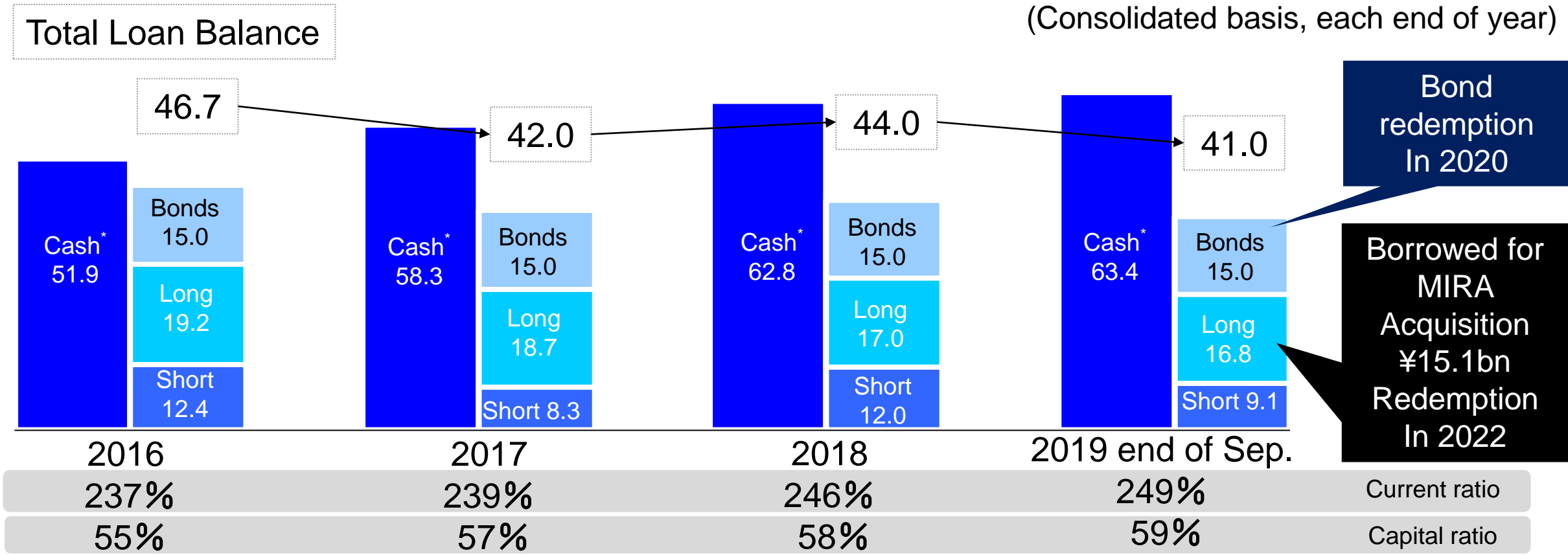
Consolidated Cash Flows (First Half)

(Billions of yen)

	2019 1st Half	2018 1st Half	Variation
Cash flows from operating activities	+13.84	+12.40	+1.44
Cash flows from investing activities	-4.26	-4.43	+0.16
Cash flows from financing activities	-7.26	-4.31	-2.94
Cash and cash equivalents at end of year	+64.64	+61.47	+3.17
Free cash flows	+9.58	+7.97	+1.60

Cash Balance

(Billions of yen)

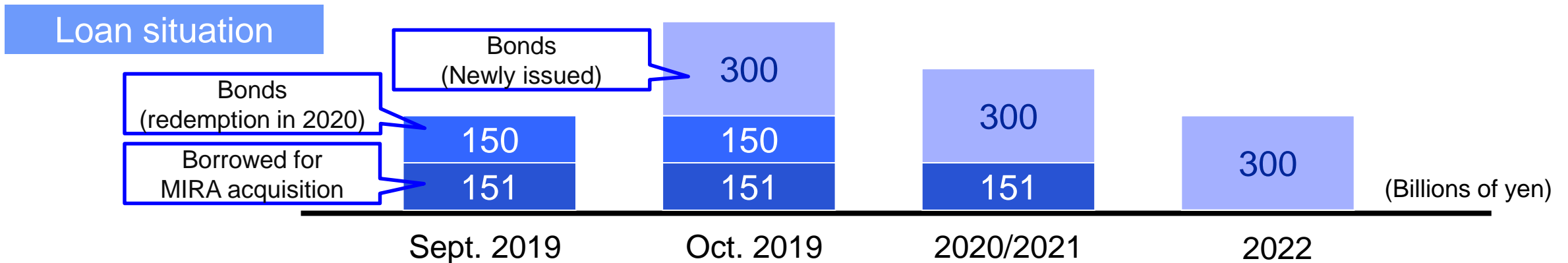


- Recent issuer rating : R&I “A” (Jul. 2019), JCR “A+” (Oct. 2019)

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

Issue of Unsecured Straight Bonds

	5 th Unsecured Straight Bonds	6 th Unsecured Straight Bonds
Total amt. of issue	15 billion yen	15 billion yen
Interest rates	0.18% per annum	0.27% per annum
Date of Issue	October 17, 2019	
Maturity Date	October 16, 2026 (7 years)	October 17, 2029 (10 years)
Purposes	Bond redemption, CAPEX, other investments, repayment of borrowings and working capital	



Contents

- 2019 First Half / 3Q Results
- 2019 Forecast
- Outlines by Business Segments
- Shareholder Return
- Other Topics
- Financial Data
- **Corporate Profile**

Business Segments

Automotive Test Systems



Process & Environmental



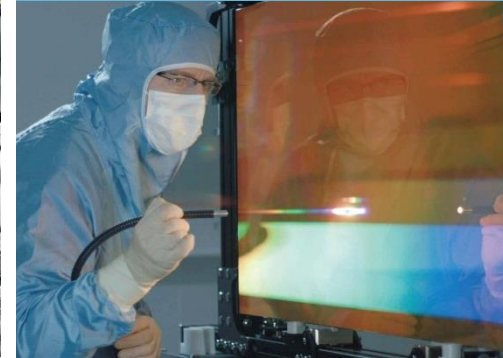
Medical



Semiconductor

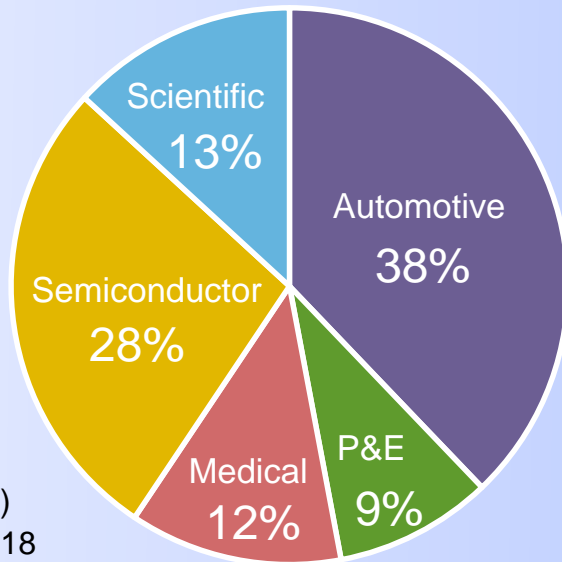


Scientific



Net Sales
210.5 billion yen

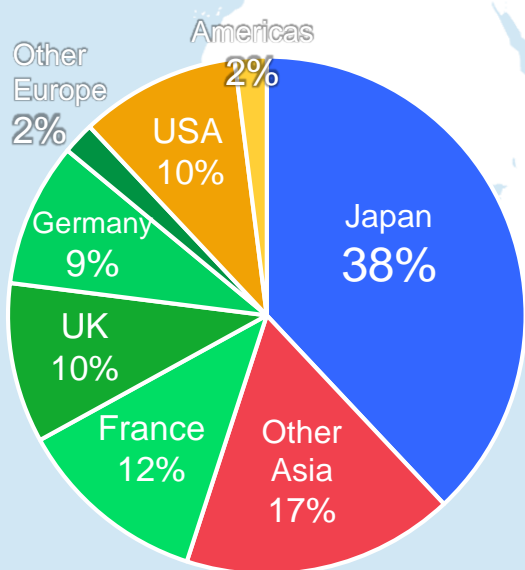
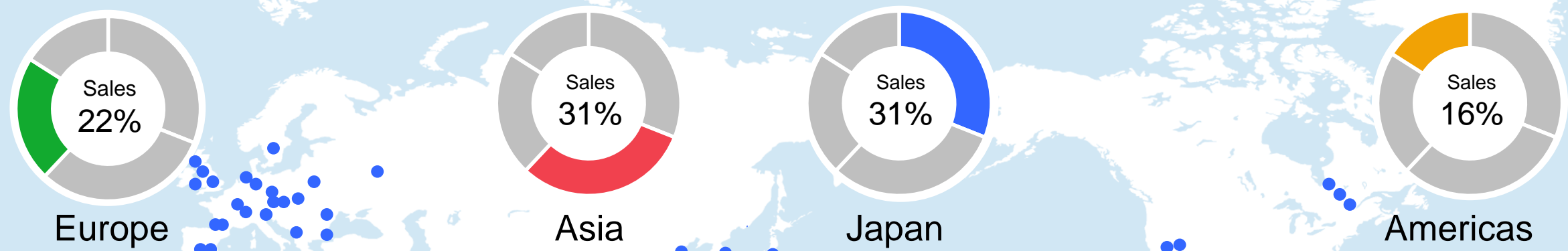
Sales by business segment (%)
Fiscal 2018



Expanding in New Domains
and
Moving onto a New Stage

Global Network

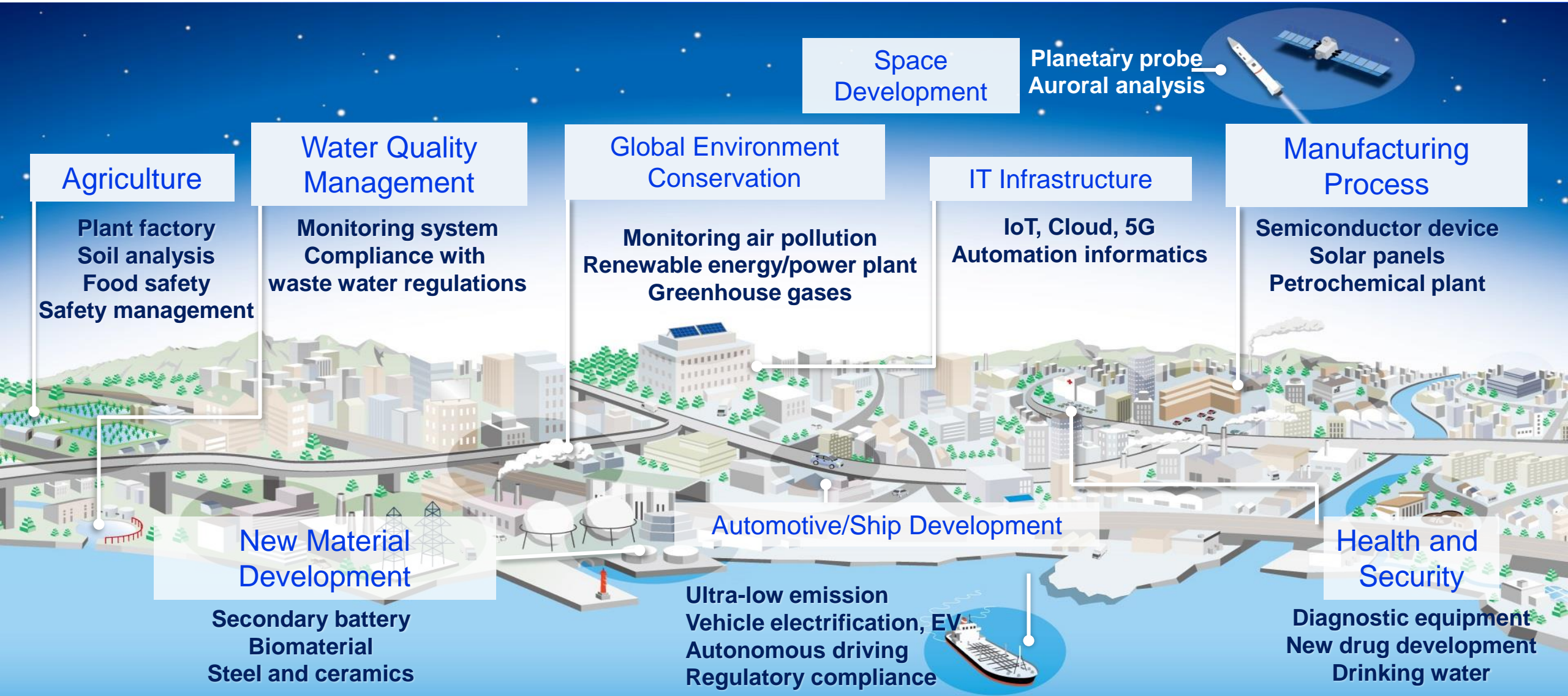
(As of December 31, 2018)



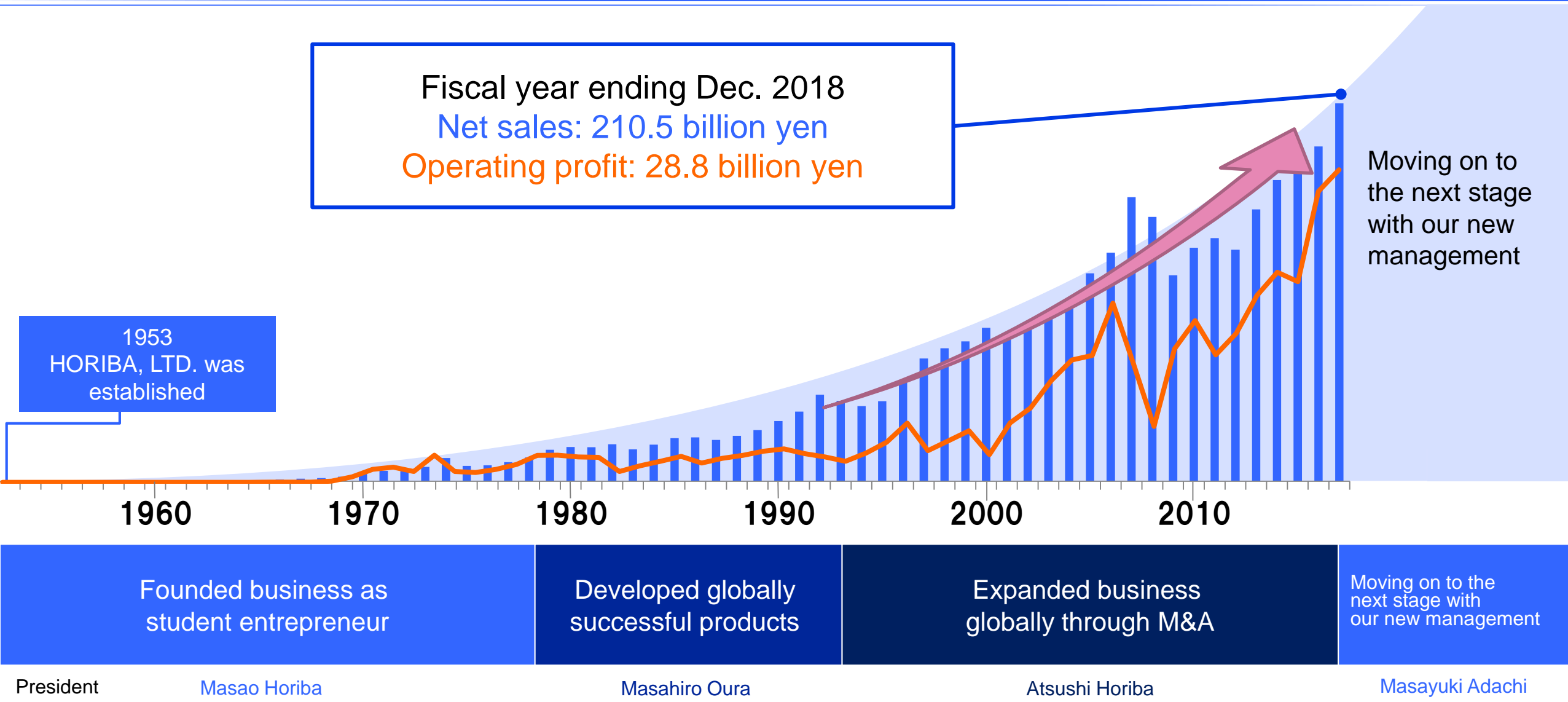
	Employees by Region	The number of companies
Americas	991 (12%)	9
Europe	2,637 (33%)	22
Asia	4,315 (55%)	18 (4 in Japan, Including HORIBA, Ltd.)
Total	7,943	49

HORIBA's Business Domain

from Nano- to Cosmic-Level Analysis



HORIBA's Steady Growth: x10 Net Sales and x18 Op. Profit in 30 years



HORIBA BIWAKO E-HARBOR

HORIBA BIWAKO E-HARBOR

- Consolidating development, design, and production operations of gas measurement equipment at a single location
- Doubling of production capability and shortening delivery time to one-third by using a new production methodology
- Comprehensive engineering services from sales to development, production, and maintenance in the Automotive testing laboratory



- Profitability improvement of exhaust gas analyzers
- Presenting cutting edge automotive development technology



Total investment: 10.0 billion yen, Location: Otsu City, Shiga Prefecture, Full operation : May 2016

HORIBA BIWAKO E-HARBOR





E-LAB

xEV system test cell

CELL 0

Performance evaluation of battery / fuel cell

Powertrain test cell

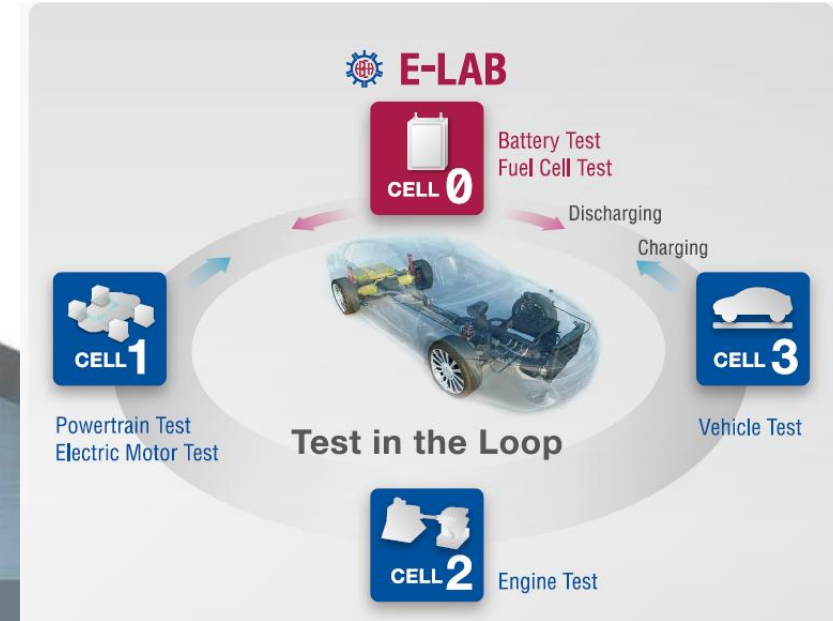
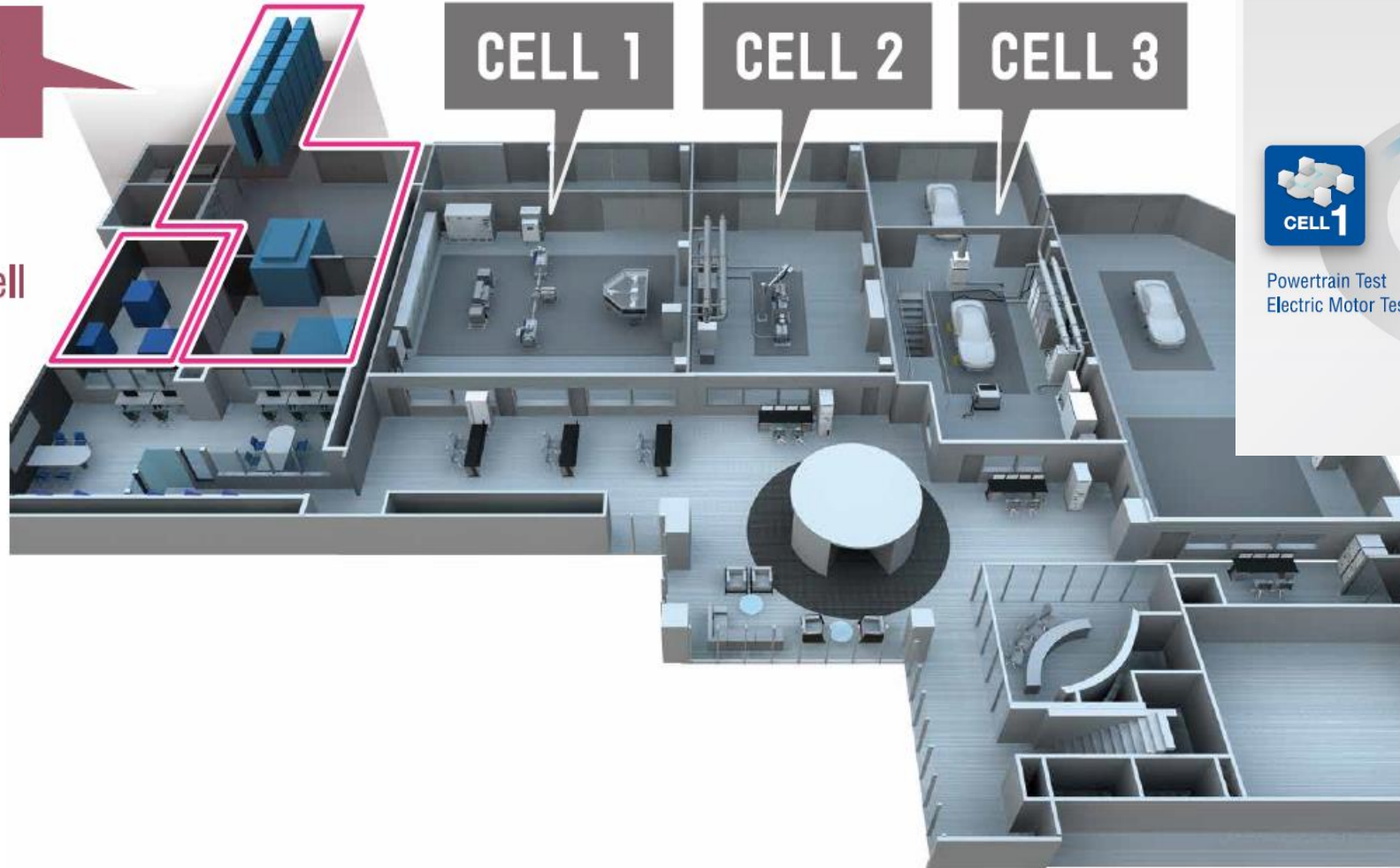
CELL 1

Engine test cell

CELL 2

Vehicle test cell

CELL 3

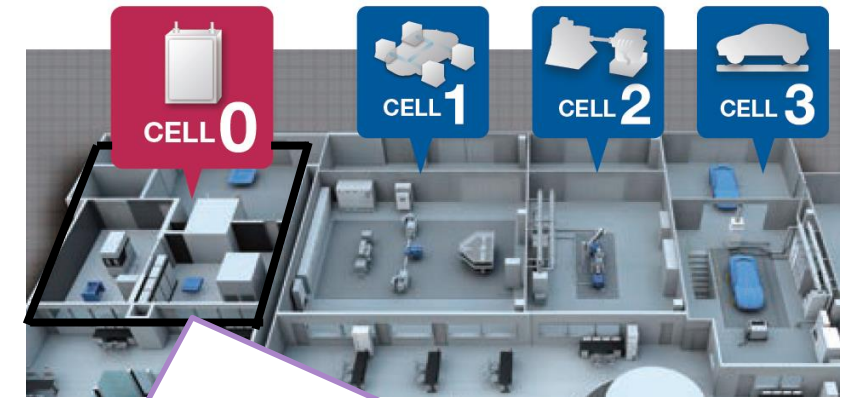


Expansion of E-LAB for xEV Technology (CELL Zero)

Expanding E-LAB to add test facility for secondary batteries and fuel cells

【Features of facility】

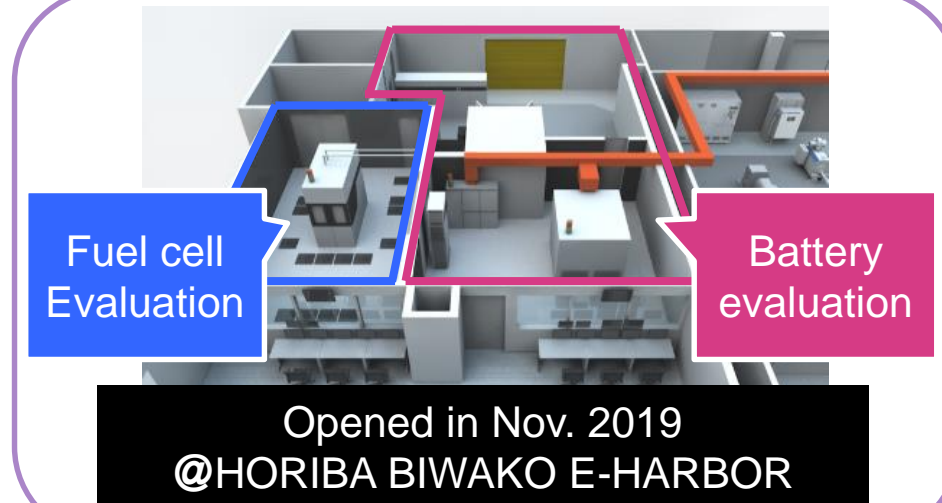
- Providing a wide temperature range of test environment
 - To be used for xEV and fuel cell evaluation
- CELL Zero to be connected with CELL 1, 2 and 3
 - Total evaluation system “Test in the Loop”



Objective of “Test in the Loop”

Proposal of a highly-efficient R&D environment for electric vehicles

- Data measurement in virtual environment of a real vehicle
- Performance verification, using a real vehicle with the embedded simulation model





HORIBA MIRA

Information on page 40 to 41 are as of acquired the company.

HORIBA MIRA Ltd.

Providing Engineering Service with World Leading Mobility Development Capability and R&D Location with Dedicated Facilities and Proving Ground

Business Offering

1. Vehicle development engineering
2. Test engineering
3. MIRA Technology Park
(Providing Unique R&D Location)

Established

1946

Head office

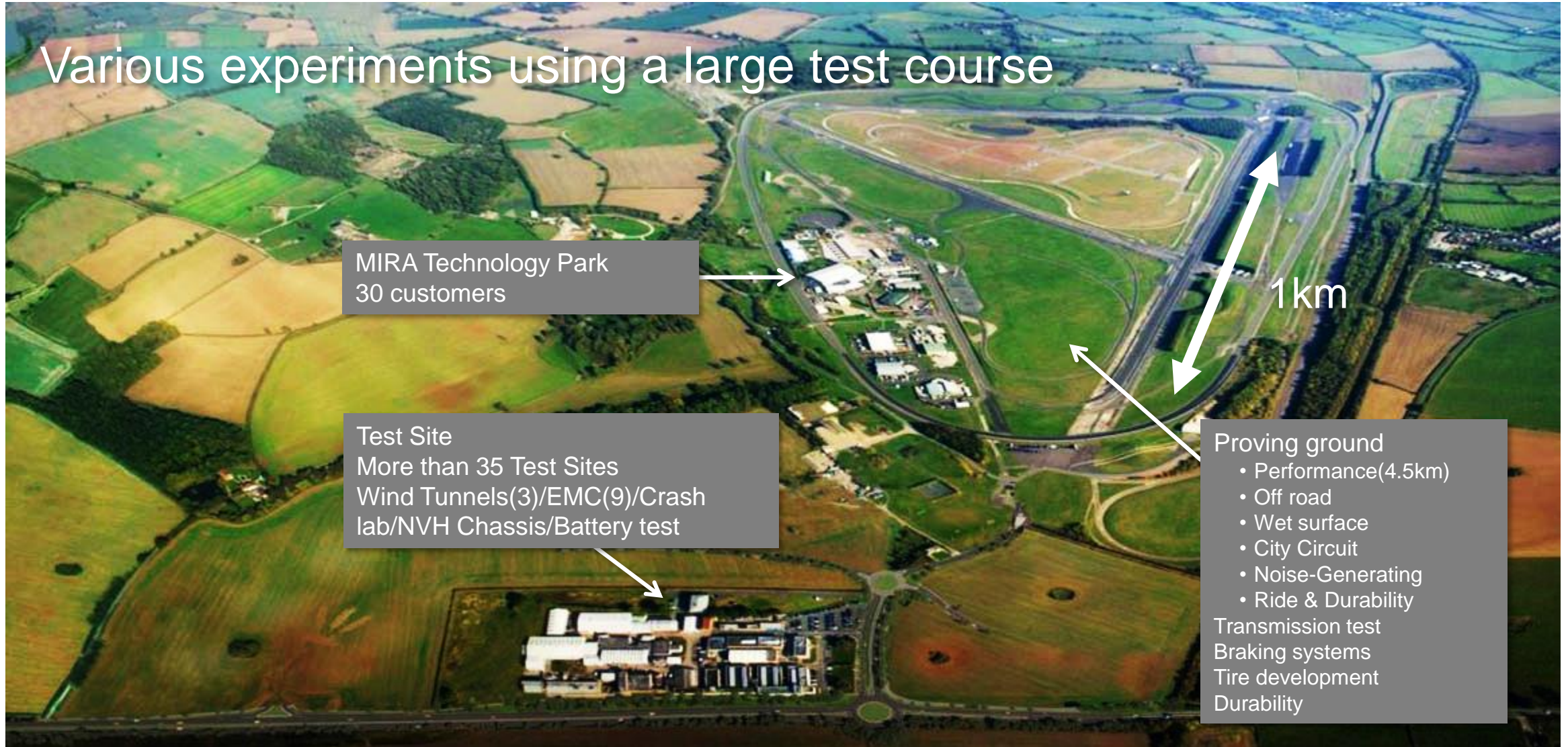
Nuneaton, Warwickshire, UK

Major locations

U.K., China, and India



MIRA Technology Park



Masao Horiba Awards Award Ceremony (Oct. 17, 2019)

Contribute to accelerating innovation
through supporting young researchers and engineers globally

Theme of
this year

Cutting-edge analysis and measurement technologies for efficient control
in order to optimize energy and battery utilization

【Award ceremony】

- Presentation and poster session
 - ◆ Introduced research themes by awardees
 - ◆ Discussion with awardees about themes directly
- Many experts from governments and academic institutions attended

【Purposes for future】

- Strengthen relationship with research institutions
- Realize results from researches and lead to enlarge HORIBA's business related to electrification



Dr. Akira Yoshino, who was awarded the Nobel Prize in Chemistry 2019, attended the ceremony as the chairperson of the award

Thank you