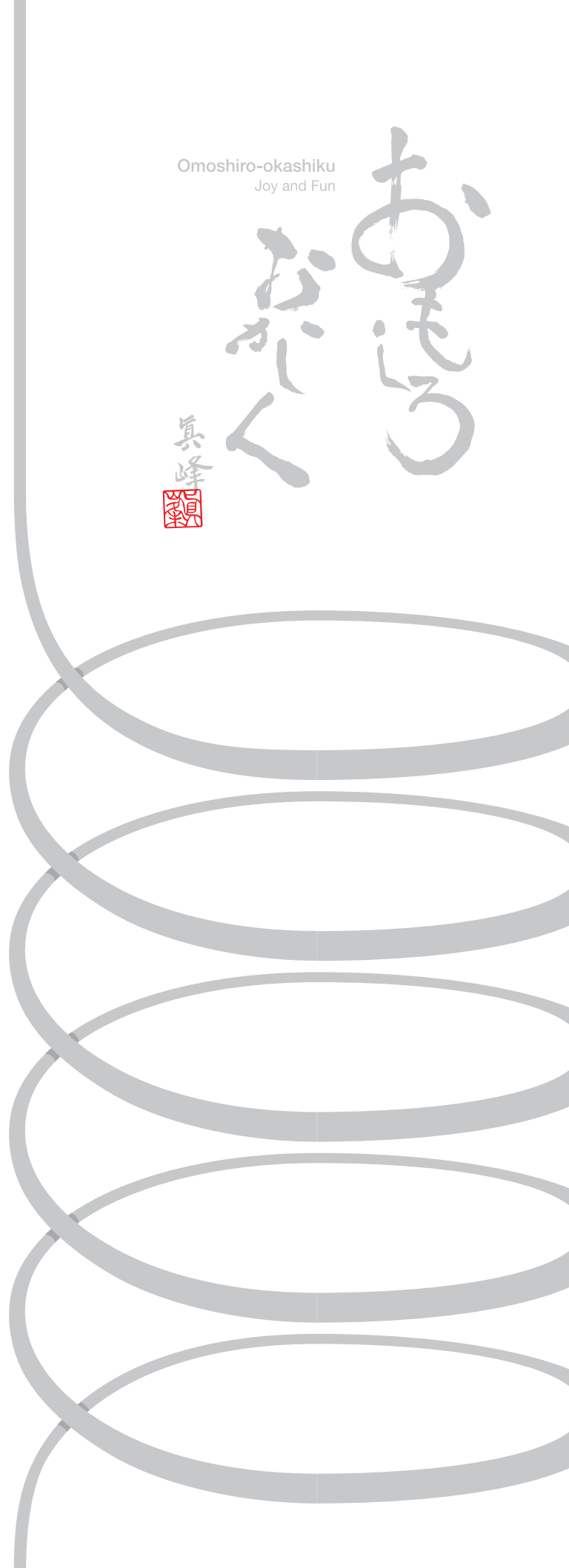


Omoshiro-okashiku
Joy and Fun



HORIBA Report 2016

[Year ended December 31, 2016]



Everything begins with measurement



Automotive Test Systems

Sustainable growth in society is established through technological innovation.

Engineers' dreams, passions, and persistent efforts are intertwined with the conditions that enable them, including investment opportunities and social demand.

“Measurement Technologies” that resolve unknown materials and phenomena help accelerate innovation by engineers.

Everything begins with measurement. HORIBA's “Measurement Technologies” and analysis solutions are always at the frontlines of innovation.



Scientific

HORIBA



Medical-Diagnostic



Process & Environmental



Semiconductor

Global growth through acquisitions

HORIBA, has achieved continuous growth since its foundation, by specializing in “Measurement Technologies” and entering new markets. We intend to continue to grow by globally promoting HORIBA’s corporate culture, expressed in the corporate motto “Joy and Fun.”

□ Sales outside of Japan ■ Sales in Japan — Operating income

Results up to 1977 are on a nonconsolidated basis and results from 1978 are on a consolidated. Sales are divided into overseas sales and domestic sales from 1991.

1950 

HORIBA pioneers the first made-in-Japan glass electrode pH meters.



1970 

OLSON-HORIBA, INCORPORATED, a joint venture company, was established in the U.S. HORIBA begins overseas expansion.



1975 

Emission gas analyzers were delivered to the United States Environmental Protection Agency (EPA).



1945 HORIBA RADIO LABORATORY was established.
1953 HORIBA, Ltd. was established.

Net sales exceeded ¥10 billion



1988



HORIBA Korea Ltd. was established in South Korea.

2005



MCT (Mechatronics) business of Carl Schenck AG was acquired in Germany.

2015



MIRA, Ltd. (now HORIBA MIRA, Ltd.) was acquired in the U.K.

1996



ABX S.A. (now HORIBA ABX S.A.S.) was acquired in France.



2014



The reagent plant for hematology analysis, the first in India, began operation.



2016



HORIBA India Technical Center was opened.



1997



Jobin Yvon S.A. (now HORIBA France S.A.S.) was acquired in France.



Net sales
¥170
billion

Sales outside of Japan
¥113.5
billion

Net sales exceeded
¥150 billion

Operating income
¥18.4
billion

Net sales exceeded
¥100 billion

Net sales exceeded
¥50 billion

Sales outside of Japan

Sales in Japan

Sales in Japan
¥56.5
billion

1985

1990

1995

2000

2005

2010

2016

HORIBA's value-creating



Automotive Test Systems



Process & Environmental



Medical-Diagnostic



Semiconductor



Scientific



Omoshiro-okashiku
Joy and Fun

おもしろい
が
人
真峰

spiral

Creation of social value (Outcome)

Customers

HORIBA helps improve the quality of life in a sustainable society by providing products and services to customers. We think it is important to provide solutions in addition to supplying hardware (instruments). In order to achieve this goal, we collaborate with suppliers and group companies in Japan and overseas to improve the quality of our products and services.

Organizational structures

HORIBA operates five business segments in 27 countries. We believe it is important that each business is promoted from the local region. With that aim, we are extending our "Joy and Fun" corporate motto throughout our global operations while promoting balanced management, matrix organization, and the HORIBA Stained Glass Project to build a Super Dream Team.

* See HORIBA's thoughts on each project and management on pages 35 and 36.

Talents

At HORIBA, employees are our most important assets. In order for all employees to achieve "Joy and Fun," we work to realize HORIBA's five "Omoi" shown below. HORIBA's organizational success is due to our highly diversified employees' practice of HORIBA's five "Omoi."

HORIBA's five "Omoi"

- 1 To be a part of a collaborative community, at the forefront of new ideas and creations.
- 2 To achieve goals and make life memorable by fostering the highest intellectual potential.
- 3 To reach across the globe to expand learning that captures key business developments, wherever they occur.
- 4 To be proud of sharing what I do and what HORIBA delivers.
- 5 To be helpful to the world and its people.

Technologies

Technological development is one of the most important drivers for value creation and the lifeline of a manufacturer such as HORIBA. To make an analogy, technical capability is a form of basic physical fitness, which cannot be maintained without continual training and exercise. Using this analogy, HORIBA always needs to keep training in order to maintain the power to sprint forward whenever necessary.

Brand

HORIBA works on growing "Invisible Values," such as talents, technologies, and its corporate culture. "Invisible Values" are essential in generating future earnings and enabling enterprise continuity, while achieving numerical targets for net sales, profits, and other indicators.

We believe that our persistent and continuous efforts on increasing the other four invisible assets, namely "Customers," "Organizational Structure," "Talents" and "Technologies" have greatly helped us to establish our brands, representing trust in HORIBA placed by our customers.

1 Partner in creating innovations

All technological innovations begin with "Measurement"
By making the unseen visible, to help realize productivity gains and contribute to global economic development

2 Global environment preservation and improvement

To contribute to building a sustainable society and the improvement of the global environment

3 Contribution to human happiness

To promote diversity and "Decent Work"*

* The concept of "Decent Work" was introduced at the International Labour Conference (ILO) meeting in 1999, as its target for the 21st century. Promotion of decent work is included as a part of sustainable economic growth in the Sustainable Development Goals (SDGs).

1

Corporate culture

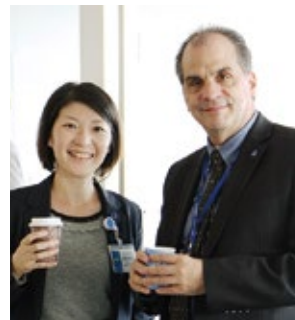
Corporate motto "Joy and Fun"

The motto originates from the belief that if we take interest and pride in the work that occupies most of the active time in our lives, in the place where we spend the large part of each day, then as a result our satisfaction with life will increase, and we will be able to enjoy our lives even more. Taking interest and pride in our work leads us to "Joy and Fun."

Omoshiro-okashiku
Joy and Fun



HORIBA's three unique points



2

HORIBA style global management

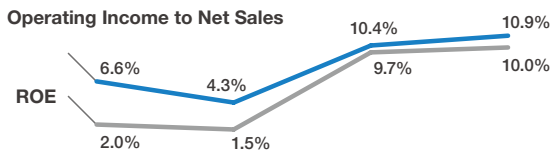
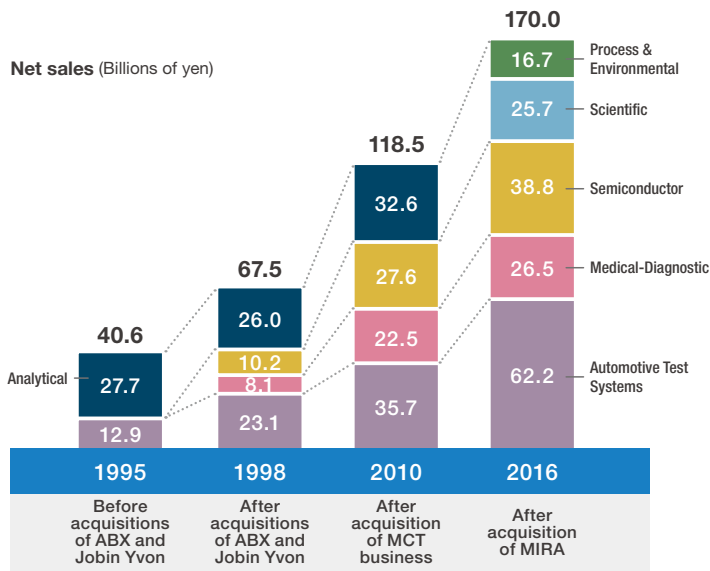
Spreading the culture of Kyoto to global scale

HORIBA got its start in Kyoto. We have achieved business growth based on our corporate culture of success and we have grown to become one of Kyoto's most successful companies.

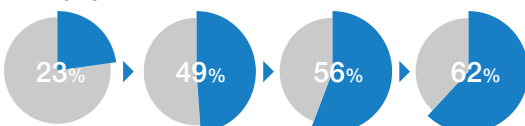
Growth driven by global M&A activities

Since the late 1990's, HORIBA has expanded its business scale and geographic scope through acquisitions. At present, over 60% of sales and employees are based outside of Japan. Our business in Japan has also grown through acquisitions.

* HORIBA has had its fiscal year-end as December 31 since fiscal 2006. See details on page 9.



Overseas employee ratio



3

High shares in niche markets

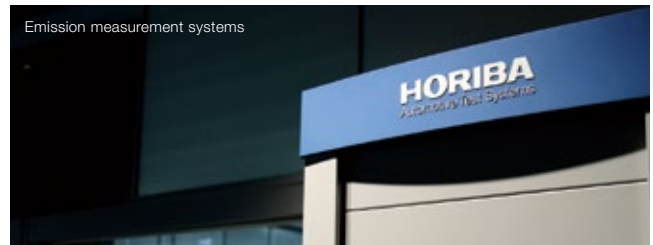
Launched products in various niche markets of analysis and measurement

HORIBA does business in many different markets, providing over 1,000 products in five business segments.

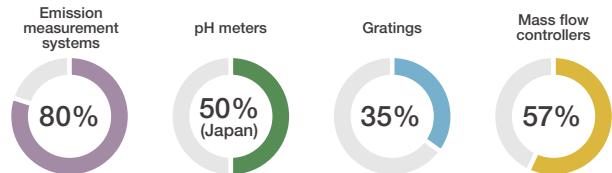
Indispensable products in each field

HORIBA's emission analyzers are indispensable in the development of fuel efficient vehicles and provide the base for emission regulations.

HORIBA's mass flow controllers are also indispensable in the production of flash memory, semiconductor production.



Global market shares of major products (Estimated by HORIBA)





Editorial policy

HORIBA believes in achieving business growth by providing industrial and institutional equipments in the private and public sectors with “Measurement Technologies” as the essence of HORIBA’s Corporate Social Responsibility.

In this integrated “HORIBA Report 2016” we have presented related activities (see the ESG mark) on each business segment page, to help you better understand how HORIBA’s investments in “Invisible Assets” are contributing in actual business growth.

Through editing this report, we have also recognized that HORIBA’s every activity has been inseparably tied to its corporate growth.

Notation of owners (shareholders): HORIBA fully recognizes the importance of its shareholders and frequently calls them owners.

Notation of HORIBA and HORIBA, Ltd.

In this HORIBA Report, the HORIBA Group of companies is described as “HORIBA” and the parent company as “HORIBA, Ltd.”

Disclaimer Regarding Future Plans and Forecasts

This HORIBA Report contains certain statements describing future plans, strategies, and performance forecasts of HORIBA, Ltd. and its affiliated companies. These statements reflect forecasts based on management’s assumptions and beliefs based on the available information as of February 14, 2017 when business results were announced. Actual performance may differ due to unforeseen circumstances in the operating environment.

Change of Fiscal Year-End

HORIBA unified its fiscal year-end as December 31, effective from fiscal 2006. As a result of this change, the following irregular fiscal periods were recorded: Fiscal 2006 for HORIBA, Ltd. and HORIBA Advanced Techno Co., Ltd. comprised the 9 months and 11 days from March 21, 2006

to December 31, 2006; and fiscal 2006 for HORIBA STEC, Co., Ltd. comprised the 9 months from April 1, 2006 to December 31, 2006. The fiscal year end of other consolidated HORIBA subsidiaries was December 31. Their 2006 fiscal periods remained unchanged at 12 months. Please note that when comparing results by fiscal year.

Prior to the fiscal year-end change, the fiscal year ended March 20, 2006 was described as 2005, the fiscal year ended March 20, 2005 as 2004, the fiscal year ended March 20, 2004 as 2003.

Change in revenue recognition standard

The Company and its domestic consolidated subsidiaries had formerly recognized revenue mainly on a shipping basis. However, starting from the year ended December 31, 2016, the Company and its domestic consolidated subsidiaries have changed to a revenue recognition method using the completion date of installation or a delivery date basis under the terms and conditions of contracts.

HORIBA’s overseas consolidated subsidiaries, pursuant to IFRS or US GAAP, had recognized



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- P03 Results over the long term and global expansion
- P05 HORIBA's value-creating spiral
- P07 HORIBA's three unique points
- P11 Message from the CEO
- P15 Progress of the Mid-Long Term Management Plan [MLMAP2020]
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revenue on an installation completion date or a delivery date basis under the terms and conditions of contracts. In addition, sales of products that require a long time for installation have been increasing. Consequently, HORIBA made a change to more adequately reflecting revenue status, upon introduction of the Enterprise Resource Planning System. This change in accounting policy has been retrospectively applied to the consolidated financial statements for full-year period of fiscal year 2015. As a result, net sales for fiscal year 2015 increased by ¥1,017 million, and operating income increased by ¥769 million, ordinary income and income before income taxes increased by ¥790 million, respectively, as compared with the figures prior to the retrospective application. The net assets at the beginning of the previous fiscal year have reflected the cumulative effects, which resulted in a decrease by ¥3,223 million in retained earnings at the beginning of the previous fiscal year. This HORIBA Report 2016, however, uses fiscal 2015 financial results as disclosed in February 2016, rather than the retrospectively-revised results, unless otherwise noted.

Market shares stated in this report are HORIBA's estimates for fiscal 2016.



HORIBA will keep investing in technologies and talents and refining “Invisible Values” with the spirit of “Joy and Fun”

Chairman, President & CEO

Since its foundation 72 years ago, HORIBA has been working on solving social issues through its core business of “Measurement Technologies”.

We are now moving “ONE STEP AHEAD” to new business areas, new regions, and new stages under the Mid-Long Term Management Plan MLMAP2020.

Continuous investment to accelerate growth

HORIBA has been making investment in the hiring and development of talents, R&D, facilities and equipment during economic ups and downs. I am thinking that it is increasingly important to keep investing to respond to significant changes which are witnessed nowadays in the technology trend of various industries. While companies specializing in one industry or one small region find it difficult to make investments during downturns, HORIBA can afford to keep investing from a long-term perspective, as we adhere to balanced management and matrix organization (see page 35) in different regions and business areas with different cycles. This has also enabled us to earn

trust from our business partners around the world and to ensure growing prominence of the HORIBA brand globally.

Proactively facing the changing trends in the automotive industry with our “Measurement Technologies”

The automotive industry is anticipated to make significant evolution over the coming years resulting from integration with IT enabling autonomous driving and an energy revolution involving use of fuel cells and other factors. Accordingly, the subjects of immediate and high concern in automotive development will change. Being a car enthusiast I am personally finding the recent evolution of electric cars very exciting.

In 2015 we acquired HORIBA MIRA, Ltd. (U.K.), a provider of engineering services for autonomous driving vehicle development and many different performance tests. I am confident that HORIBA MIRA, Ltd. can become a driving force to change HORIBA’s business model, which has so far had emission measurement systems as a core business, with an 80% global market share. I am pleased that we welcomed HORIBA MIRA, Ltd. in our group just as the automotive industry is going through fundamental changes. Despite short-term concerns over the issue of Brexit, our

continual investment in the U.K. and responding to diversification of the needs of customers are indispensable for HORIBA's mid- to long-term competitiveness. We are committed to accelerating growth in development of next-generation mobility such as autonomous driving vehicles.

Investing to respond to an increase in demand in the semiconductor industry

We have also decided to expand the Aso Factory of HORIBA STEC Co., Ltd., a main production facility of mass flow controllers for semiconductor production equipment. This investment is based on our belief that establishing a stable supply network of products in a long-term growth market can give a sense of reassurance to our customers and enhance the HORIBA brand. Stable supply capacity is critically important for long-lasting relationships with customers.

Although the factory was greatly damaged by the Kumamoto Earthquakes in April 2016, it quickly resumed supply of mass flow controllers, with the cooperation of various stakeholders, including local people, customers, and subcontractors. This episode was also highly regarded by our customers. Continual technology innovation, talents investment, and capital expenditures have enabled us to out-do our competitors, resulting in an increase in our global market share of mass flow controllers from less than 25% in the early 2000's to 57% in 2016.

We are, however, not satisfied with the current level. We still have big business fields where our market share can rise. In LEDs, photovoltaics, and other new areas with long-term

demand growth potential, I am convinced that HORIBA can capture a higher market share as we are always capable of supplying products equipped with cutting-edge technologies.

Accelerating growth in the water measurement area

In MLMAP2020 we are also making significant new investments in business fields and markets with great growth potential, including fuel cells and other alternative energy sources, the bio-life science field, and the water analytical and measurement field. In water measurement we have consolidated our management resources in HORIBA Advanced Techno Co., Ltd. Now we have integrated HORIBA's first product, the pH meter, and other products, as well as our development, production, and sales resources. Our target is to expand sales from approximately ¥12 billion in 2016 to ¥20 billion by 2020. HORIBA Advanced Techno Co., Ltd., thriving in full swing, reminds me of HORIBA STEC Co., Ltd., which has rapidly grown by being specialized in business for the semiconductor industry. I am looking forward to HORIBA Advanced Techno Co., Ltd.'s future growth.

Adopting a new indicator for realizing the enhancement of capital efficiency

We intend to raise the awareness of our people to the importance of capital efficiency, so as to enable us to continue aggressive investments and make prompt decisions when they are needed. We have decided to adopt a new indicator that incorporates the weighted average cost of capital (WACC) to gauge management of each business segment and each group company. During 2017 we are studying how effectively the indicator can be adopted and utilized as a Key Performance Indicator (KPI) by each Group company. We then plan to introduce it in 2018 and beyond. The adoption of the benchmark is not to restrict investment to realize a high goal; rather, we are hoping to earn appropriate return on investment by each business for our further growth. (See our detailed discussion on this initiative to raise capital efficiency, in the CFO Message, pages 17 and 18.)

HORIBA's
idea on
value
creation

- We regard all HORIBA employees as one family and as our precious talents.
- We continuously invest in our valuable assets, namely talents and technologies, to enhance our competitiveness.
- Together with owners (shareholders) and all other stakeholders, we raise corporate value.

Renewing record-high earnings in 2017

In 2016 (ended December 31, 2016), HORIBA recorded consolidated net sales of ¥170.0 billion (down 1% year-on-year) and operating income of ¥18.4 billion (down 8% year-on-year). This was mainly due to a 32% decline from the previous year in the Automotive Test Systems segment, due to the yen's appreciation and an increase in expenses related to the start-up of the HORIBA BIWAKO E-HARBOR, Biwako Factory. In contrast, the Semiconductor Instruments & Systems segment achieved record-high operating income, thanks to robust capital spending by semiconductor manufacturers and an increase in global share for mass flow controllers for semiconductor production equipment. For 2017, we are targeting to achieve record-high sales, at ¥177.0 billion (up 4% year-on-year), and record-high operating income, at ¥20.0 billion (up 8% year-on-year)*, assuming the exchange rates of ¥110 against the U.S. dollar and ¥120 against the euro. The Automotive Test Systems segment is expected to significantly increase sales and operating income due to strong demand in emission measurement systems on the back of stricter emission gas regulations in many countries, and a recovery in demand in the MCT (Mechatronics) business. The Semiconductor Instruments & Systems segment is also looking forward to an increase in sales and operating income as demand is anticipated to remain at a high level. While the Medical-Diagnostic Instruments & Systems segment is forecasting a decrease in operating income due to forward-looking investments, the Scientific as well as the Process & Environmental Instruments & Systems segments are projecting an increase in operating income. Finally, our targets for MLMAP2020 are sales of ¥250.0 billion and operating income of ¥30.0 billion in 2020 (see details and updates on pages 15 and 16).

Enhancing our “Invisible Values” to raise corporate value

HORIBA regards employees as important “Invisible Values.” In 2014 we launched the “HORIBA Stained Glass Project.” With the mission of making HORIBA stronger by the continual creation of new value through HORIBARIANS’ diverse talents and skillsets, we are promoting more diversity in our workforce as a basis for management and workstyle innovation (see page 36).

* The Company and its domestic consolidated subsidiaries had formerly recognized revenue mainly on a shipping basis. However, starting from the year ended December 31, 2016, the Company and its domestic consolidated subsidiaries have changed to a revenue recognition method using the completion date of installation or a delivery date basis under the terms and conditions of contracts. The forecasts for fiscal 2017, announced on February 14, 2017, the day of announcement of financial results, would not be record-highs when compared to the retrospectively-revised results for fiscal 2015. In the CEO message, comparison is made using the reported results, before retrospectively applying the change in revenue recognition.



1



3



5



7



9

- 1 Atsushi Horiba** Chairman, President & CEO
- 3 Dr. Masayuki Adachi** Senior Managing Director
General Manager of Research & Development Division
Chairman of supervisory board of HORIBA France S.A.S.
- 5 Dr. Jai Hakhu** Executive Corporate Officer
Chairman, President & CEO of HORIBA International Corporation (U.S.)
Chairman of HORIBA Instruments Inc. (U.S.)
President of HORIBA ABX S.A.S. (France)
- 7 Hideyuki Koishi** Senior Corporate Officer
President of HORIBA STEC Co., Ltd. (Japan)
- 9 Dr. George Gillespie** Senior Corporate Officer
CEO of HORIBA MIRA, Ltd. (U.K.)



- 2 Juichi Saito** Executive Vice President
General Manager of Corporate & Segment Strategy Division
- 4 Takashi Nagano** Director
General Manager of Sales Division
Chairman of HORIBA Korea Ltd. (South Korea)
- 6 Sunao Kikkawa** Senior Corporate Officer
General Manager of Finance & Control Division
- 8 Yuichi Muroga** Senior Corporate Officer
President of HORIBA Techno Service Co., Ltd. (Japan)
- 10 Masao Okawa** Senior Corporate Officer
General Manager of General Administration Division

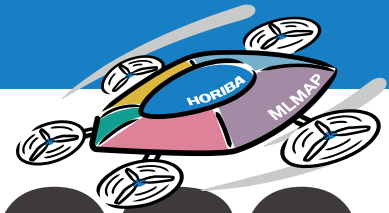
In 2011 we signed the United Nations Global Compact, a set of universally accepted principles in the areas of human rights, labor, environment, and anti-corruption. We ensure that when we conduct business we are rooted in each country and region, together with local employees, and understand the relevant diverse cultures, customs and values to ensure that we make a positive social contribution wherever we do business.

In keeping with the corporate philosophy of “Open and Fair,” HORIBA has, since its establishment in 1953, always appointed at least one director and one corporate auditor from outside the company. In 2016 we added two outside directors to have three in total for the enhancement of the board (four in the number of independent directors and auditors). Outside directors have diverse experience and unique insights, actively participate in the board meetings and contribute to enhance HORIBA’s corporate value.

HORIBA has regarded shareholders as one of its most important stakeholders and has frequently called them owners. Since our founded, we have also been unique as a Japanese company to allocate profit and pay shareholder dividends based on a payout ratio. Today, our basic policy on returning profits to owners (shareholders) is to target total returns to shareholders at 30% of HORIBA’s consolidated net income (the combination of dividend payments and share buybacks), balancing this with other targets for maintaining financial position standards to enable continuous investment regardless of economic ups and downs, and enable ROE of 10%. In fiscal 2016, we paid a record-high annual dividend per share of ¥85. For fiscal 2017, we are currently forecasting an increase of annual dividend per share to ¥90.

We are committed to contributing to society by providing our “Measurement Technologies” for the benefit of our global customers while working with a sense of challenge and the “Joy and Fun” spirit. I sincerely hope that you will continue to support HORIBA for many years to come, as we are aiming at steadily raising sustainable corporate value.

April 2017
Chairman, President & CEO **Atsushi Horiba**



Progress of the Mid-Long Term Management Plan

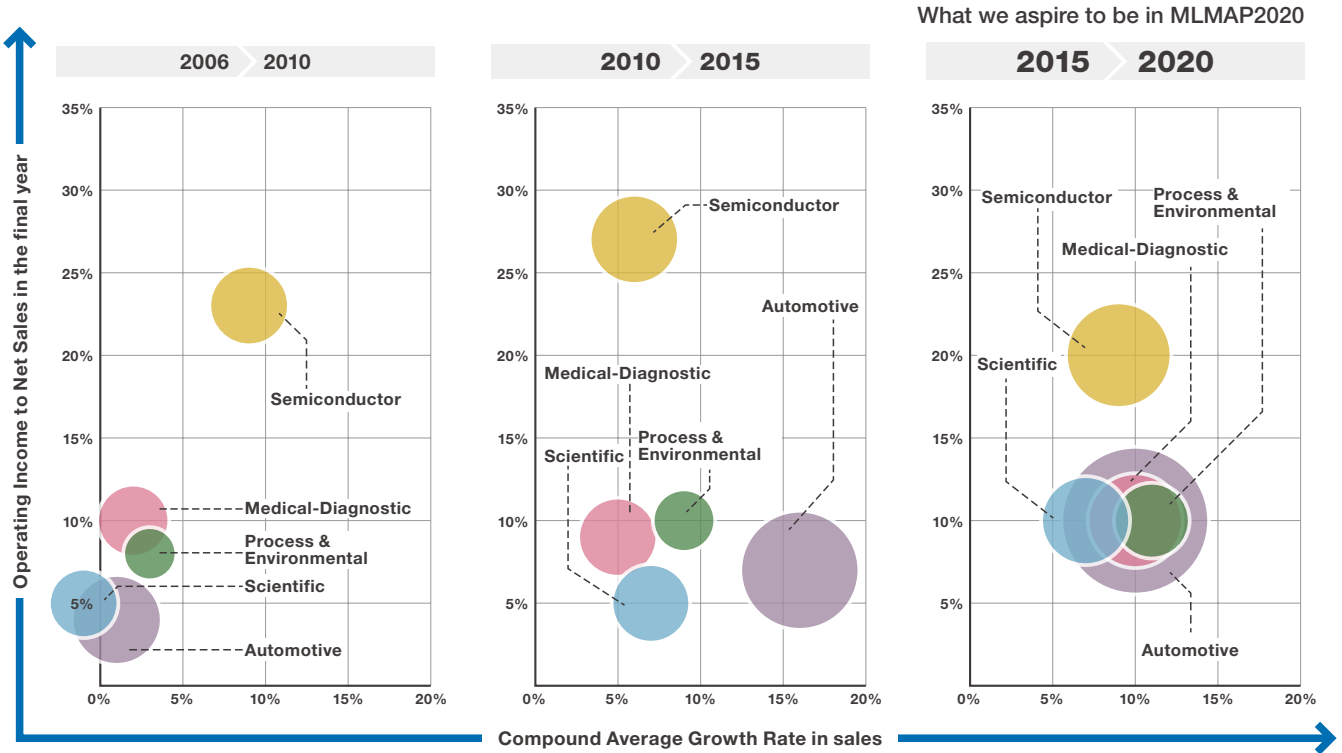
MLMAP2020

Mid - Long Term Management Plan

After completing the Mid-Long Term Management Plan [2011-2015], HORIBA formulated a new plan, MLMAP2020, for the five-year period from fiscal 2016 to fiscal 2020. Here we report the progress made in the first year, fiscal 2016.

Business Portfolio Target

The business portfolio target for 2020, under MLMAP 2020, envisions well-balanced growth and profitability in all business segments. In addition to seeking business growth of each segment, we will promote the cross-segment use of technology and sales networks, which also means providing new applications. The operating income to net sales of 10% or more in all business segments is also a part of the new plan's targets.



Vertical axis: Operating Income to Net Sales in the final year

Horizontal axis: Compound Average Growth Rate in sales

Size of circle: The size of the bubbles represents sales proportionately

- Automotive (Purple)
- Process & Environmental (Green)
- Medical-Diagnostic (Pink)
- Semiconductor (Yellow)
- Scientific (Blue)

MLMAP2020 Outline

Measures

Applying HORIBA Technology in new business fields and new markets to move

“ONE STEP AHEAD”

Priority measures

- 1 Applying HORIBA technology in new business fields and markets and becoming a true partner in analysis and measurement
- 2 Accelerating corporate growth through forming Super Dream Team in balanced management, matrix organization and the HORIBA Stained Glass Project
- 3 Raising capital efficiency to maximize corporate value

Numerical target

Net sales **250** billion yen
 Operating income **30** billion yen
 ROE **10% or more**

* Assumed exchange rates for 2020: 115 yen per U.S. dollar; 125 yen per euro

Main Emphases in 2016

1 Accelerated growth in the water measurement business

HORIBA aims to expand the water measurement business by eliminating barriers between three business segments that are engaged in water analysis and measurement (the Process & Environmental, Semiconductor, and Scientific Instruments & Systems segments) and by promoting the shared use of their technology and sales networks. Resources in Japan were integrated in HORIBA Advanced Techno Co., Ltd., an acknowledged leader in water and liquid measurement. This subsidiary will respond to all water-related customer demand, from domestic-use water to industrial-use precision water and pollution testing.

Upon completion of business integration of two companies, HORIBA, Ltd., and HORIBA Advanced Techno Co., Ltd., in the water measurement area in January 2017, central offices of HORIBA's associates who are specialized in water measurement have all joined together at the Kyoto Head Office of HORIBA Ltd., to improve interaction and accelerate development.

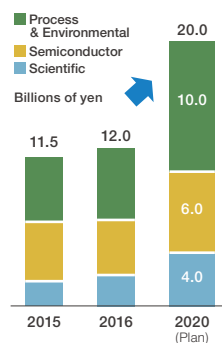
Consolidation of resources in water measurement in HORIBA Advanced Techno Co., Ltd.

Integration at all phases of development, production, and sales for products and technologies held by HORIBA Group companies and three business segments (Process & Environmental, Semiconductor, and Scientific Instruments & Systems segments)

HORIBA's unique value creation

Aim at doubling sales in the water measurement area

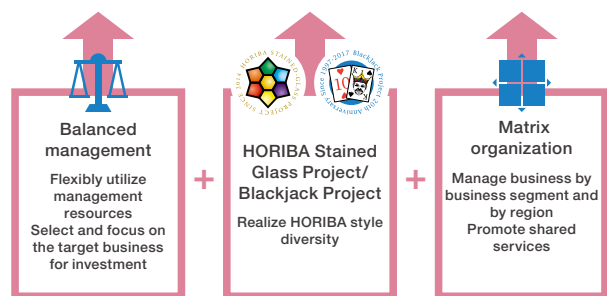
- Wide coverage, from ultra-pure water to discharged wastewater
- Precise responses to market requirements
- Creation of a water measurement network by use of Internet of Things.



2 Achieving MLMAP2020 targets by Super Dream Team

HORIBA is engaged in global business in niche markets of analysis and measurement. Regarding continuous business expansion, we will realize sustainable business growth and high market shares by concurrently holding several ¥50 billion scale businesses. Adding our business segments to 6th or 7th will lead to company scale growth and realization of sustainable growth while maintaining high share in each area. Such strategy can be realized by our diverse Super Dream Team.

Super Dream Team



3-1 Adoption of a new indicator for improving capital efficiency

To achieve MLMAP2020 targets, we adopted the indicator. It will be used to measure two important factors, namely operating income and capital efficiency.

See details on pages 17 and 18.

Schedule for adoption of a benchmark

Feb. 2017	Adoption of a benchmark was decided.
Spring to summer 2017	Briefings to group companies in Japan and overseas and to each business segment
Autumn 2017	Start 2018 budgeting work
Winter 2017	Set up as 2018 budget

3-2 Established finance subsidiaries in the U.K. and the U.S.

Finance subsidiaries were established in the U.K. and the U.S. in December 2016 and January 2017, respectively. HORIBA intends to enhance group finance capacity in each region and use funds more efficiently.

See details on pages 17 and 18.



HORIBA is taking new initiatives to raise asset efficiency, with the aim of maximizing corporate value over the long-term

Sunao Kikkawa

Senior Corporate Officer
General Manager of Finance & Control Division

Sunao Kikkawa
Senior Corporate Officer and General Manager of Finance & Control Division

Sunao Kikkawa joined HORIBA, Ltd. in 1974. He was assigned to HORIBA Instruments Incorporated (U.S.) in 1982 and returned to HORIBA, Ltd. in 1988. He was appointed General Manager of the Accounting Department in 1996 and Senior Corporate Officer in 2007. He has been a key person in globalizing HORIBA's accounting operations along with the Group's globalization and maintaining compliance with international accounting standards. At present he is engaged in raising efficiency in capital strategy and group administrative operations as Senior Corporate Officer and General Manager of the Finance & Control Division.

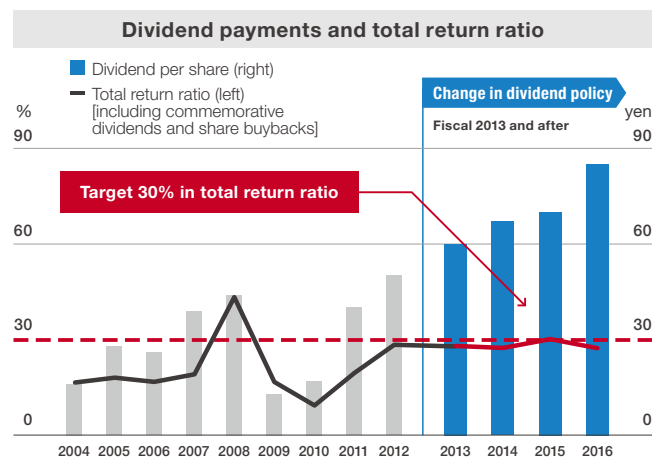
Aggressive investments with a long-term perspective

HORIBA has invested in production facilities, R&D activities, and talents from a long-term perspective. In 2015 we invested approximately ¥10 billion, the highest amount in our history for one production base, in building HORIBA BIWAKO E-HARBOR, Shiga prefecture in Japan, and the highest amount for an acquisition, U.K.-based MIRA, Ltd., now HORIBA MIRA, Ltd. In 2016 we did not make any major acquisitions but continued capital spending of more than ¥10 billion for HORIBA MIRA, Ltd. and others. In 2017 we will continue a high level of investment. Our plan is to continue investment in HORIBA MIRA, Ltd., and to make additional investment in the HORIBA STEC Aso Factory in the Semiconductor Instruments & Systems segment. We will also actively consider any promising M&A opportunity which helps further HORIBA's growth.

Shareholder return target of 30% of consolidated net income

Since fiscal 2013, HORIBA's shareholder return policy is to

target total returns (the combined amount of dividend payments and share buybacks) to owners (shareholders) at 30% of consolidated net income. Accordingly, we increased the dividend per share by ¥15 from the previous year to ¥85 in fiscal 2016 and are projecting an increase of ¥5 to pay a dividend per share of ¥90 in fiscal 2017. We intend to continually increase rewards to owners (shareholders) in line with growth in earnings, driven by business growth.



Basic capital policy

1 Achieve higher ROE

As stated in our MLMAP2020 HORIBA aims to achieve ROE of 10% or more by 2020. ROE is one of our most important management metrics.

2 Link shareholder return to earnings growth

We target total returns (the combination of dividend payments and share buybacks) to shareholders as 30% of consolidated net income. This target reflects due consideration given to ensuring a stable management and retaining earnings as a capital for aggressive business development.

3 Improve capital efficiency to maximize corporate value

Each Group company and each business segment are to set their own capital efficiency target and manage efficiently in order to maximize HORIBA's corporate value.

Introduction of a new indicator for realizing the enhancement of capital efficiency

In MLMAP2020 we have set numerical targets for 2020: sales of ¥250 billion, operating income of ¥30 billion, and ROE of 10% or more. One of the plan's priority measures is to raise capital efficiency to maximize corporate value. We have recently decided to adopt a new management indicator for realizing this objective. Up to the present, we have explicitly identified the ROE target and operating income margin of each business segment (20% for the Semiconductor Instruments & Systems segment and 10% for other segments) but have not had any common yardstick to evaluate balance sheets, investments, and returns on invested capital. As we considered a series of large investments, including the construction of HORIBA BIWAKO E-HARBOR and the acquisition of HORIBA MIRA, Ltd., we focus on the importance of raising capital efficiency, while maintaining business growth. We are considering creating an indicator composed of the weighted average cost of capital (WACC) and operating income. The new indicator will be a message to each business segment to be aware of the critical importance of realizing a certain return when making a big investment. In the case of HORIBA MIRA, Ltd., we realized the need for a new indicator to measure return on capital investment.

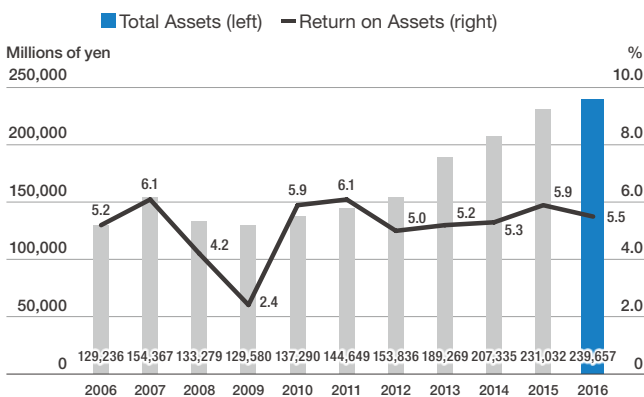
During fiscal 2017 we are discussing how effectively the

indicator can be adopted and utilized by each Group company. We then plan to implement it in 2018 and beyond. We will set a guideline for return a few years ahead for each investment project, with due consideration of asset turnover, cash flow, and other factors. Importantly, the adoption of the new indicator is not to restrict investment but to maximize return. We hope a thorough understanding of this indicator, from top management and through the regional level, will help create an effective implementation.

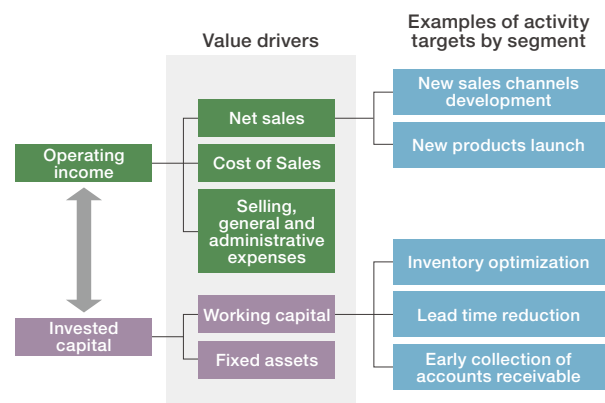
Established finance subsidiaries in the U.K. and the U.S.

We have established two fully-owned subsidiaries for expertizing in finance: HORIBA U.K. Finance Limited in December 2016 and HORIBA Americas Holding Incorporated in January 2017. One of the reasons for this is to locally manage financial matters and flexibly use cash in local currency, as our overseas Group companies are growing. Until now, when overseas group companies have capital demands, HORIBA Ltd. funded them. Going forward, these finance subsidiaries will lend to Group business companies, based on the investment plan, with emphasis on investment return. The introduction of a group finance scheme is ultimately aimed at raising capital efficiency of the Group, while encouraging overseas Group companies to autonomously maintain discipline in management of capital and assets.

Total assets and return on assets



Approach for the enhancement of capital efficiency



Business segments to expand globally

Automotive Test Systems

HORIBA's automotive EMS (Emission Measurement Systems) are adopted as the primary standard by national certification bodies in many countries and have an 80%* global market share. HORIBA provides the EMS and other measurement systems for automotive development and vehicle development engineering, enhancing the R&D efforts and quality control of automotive manufacturers and automotive component manufacturers around the world.

* HORIBA's estimate

Principal products

- Emission measurement systems
- Automotive emission analyzers
- Onboard emission measurement systems
- Driveline test systems
- Engine test systems
- Brake test systems
- Drive recorders
- Vehicle development engineering
- Testing engineering
- Lease and management of R&D facilities



Major risk factors

The global automotive industry's shifting R&D investments

Process & Environmental Instruments & Systems

HORIBA provides environmental measurement solution technologies associated with environmental regulations throughout the world. Together with providing process measurement technologies, which fulfill analytical needs in manufacturing development, we ensure better public safety, security, and health.

- Stack gas analyzers
- Water quality analysis and examination systems
- Air pollution analyzers
- Environmental radiation monitors



Demand fluctuation following changes in environmental regulations

Medical-Diagnostic Instruments & Systems

HORIBA medical products are primarily blood testing instruments and reagents for the in-vitro diagnostics market, with over ¥5 trillion in global annual sales. We have strength in small-sized blood testing instruments are used near the site where patients are located such as a surgery ward, a hospital ward, or a clinic for outpatients.

- Hematology analyzers
- Immunology analyzers
- Clinical chemistry analyzers
- Blood glucose analyzers
- Coagulation analyzers



Changes in medical insurance systems in different countries

Semiconductor Instruments & Systems

HORIBA contributes to the semiconductor industry by supplying mass flow controllers, which are devices that control gas and liquid flows in the semiconductor, photovoltaics, and LED (light-emitted diode) manufacturing processes, and other monitoring systems.

- Mass flow controllers
- Chemical concentration monitors
- Reticle/mask particle detection systems
- Residual gas analyzers



Significant fluctuation in demand caused by the "Silicon Cycle" in the semiconductor industry and investments related to photovoltaics, LEDs, and other energy sources

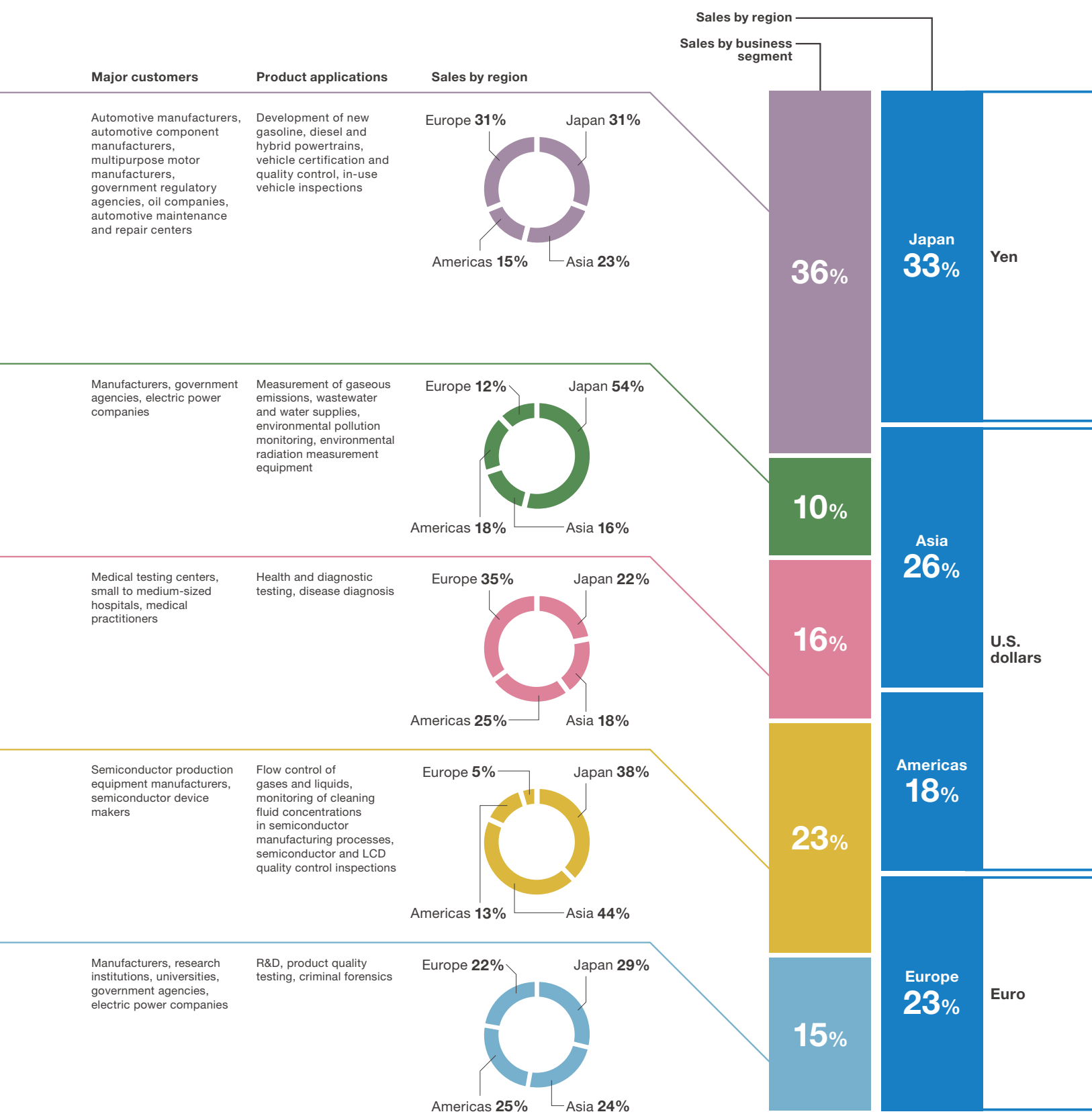
Scientific Instruments & Systems

HORIBA provides over 500 types of instruments for use at the leading edge of scientific technology and commands leading market shares in niche markets. The Scientific Instruments & Systems segment develops basic analytical and measurement technologies, which play key roles in providing new technologies to HORIBA's other business segments.

- pH meters
- Particle-size distribution analyzers
- X-ray fluorescence analyzers
- Spectrometers
- Raman spectrometers
- Gratings



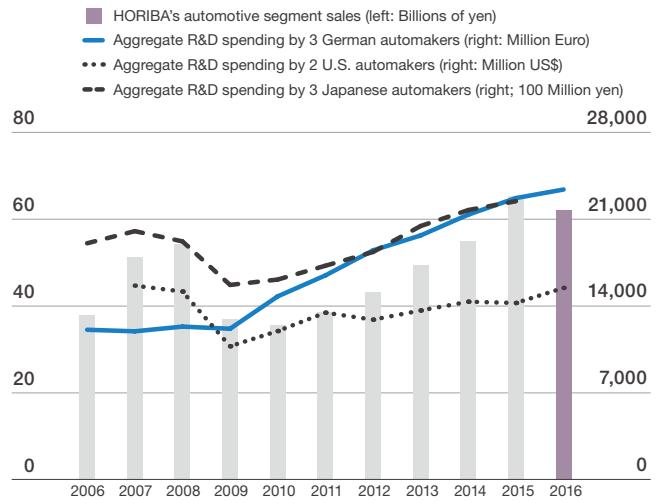
Investment trend of national government agencies and other institutions
Demand fluctuation following changes in environmental regulations



Automotive Test Systems: Market size and growth areas

HORIBA business divisions	Gasoline & diesel	Hybrid	Electric and fuel cells	Market size (Billions of yen) HORIBA's estimate
EMS business	Emissions measurement			50~60
MCT business	Engine performance testing			100~120
	Vehicle body, wind tunnel balance, brake testing			15~20
	Driveline testing			30~40
ITS business	Safety and ITS			10~15
ECT business	Vehicle design development, vehicle performance testing Lease of R&D facilities			2,000~

HORIBA's Automotive Test Systems segment sales and major automakers' R&D spending

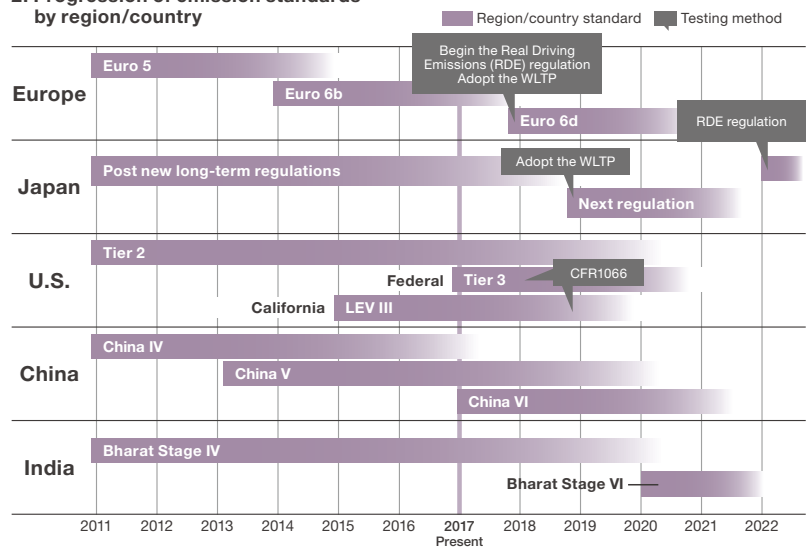


Trend of automobile-related regulations

1. Development of the Worldwide harmonized Light duty vehicle Test Procedure (WLTP) and the Real Driving Emissions (RDE) regulation

In 2014 the United Nations Economic Commission for Europe (UNECE) introduced the WLTP to provide a common technical regulation for measurement of exhaust emissions and fuel consumption for light duty vehicles. This will replace the current test methods used in Europe (September 2017), Japan (October 2018), and potentially other countries or regions. Moreover, the decision to adopt the Real Driving Emissions (RDE), which uses on-board gas measurement systems for emissions testing of light vehicles in Europe and Japan, has required automotive manufactures to prepare for change.

2. Progression of emission standards by region/country

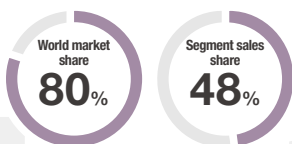


Major products and market shares

Note: Market shares quoted are estimates by HORIBA

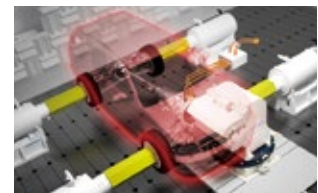
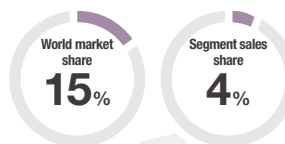
Emission measurement systems

These systems continuously and simultaneously measure a wide range of gaseous and particle components in emission gases over a broad range of concentrations. They are widely used in R&D and engine/vehicle certification in the automotive industry. The systems include large-scale systems installed inside a laboratory, in which HORIBA holds an 80% global share, and on-board configurations for road tests.



Driveline test systems

The driveline is an extremely important part of the overall powertrain that transmits energy from engines or motors to the vehicles' tires. HORIBA's driveline test systems use the latest simulation technology for a wide range of powertrain and driveline testing applications. HORIBA's strength is demonstrated by providing flexible systems based on custom and open solutions.

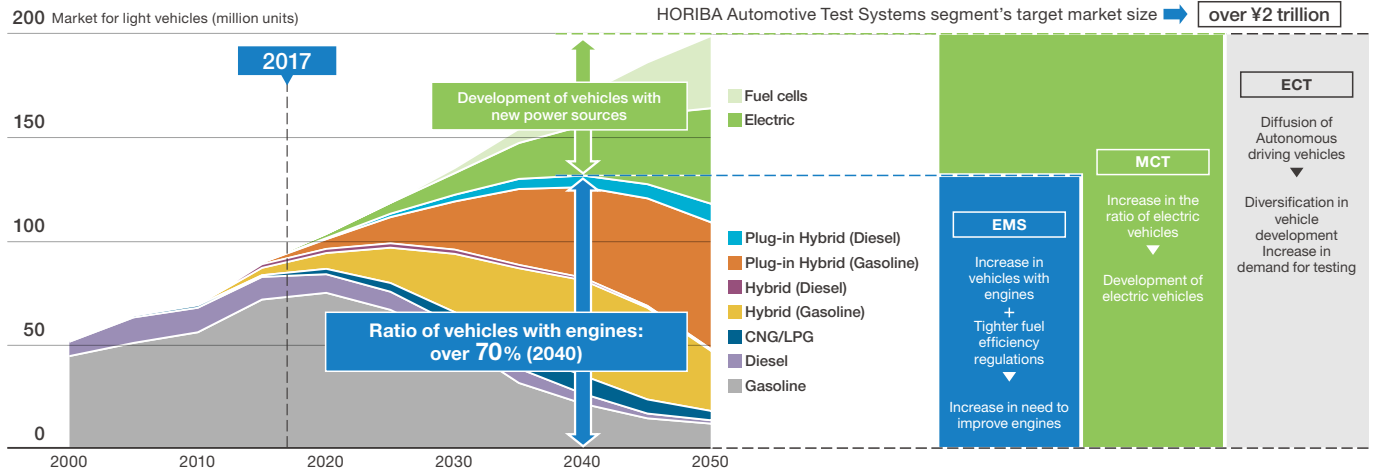


Evolution of vehicle technologies and HORIBA's growth strategy in the automotive test system business

The number of light vehicles in the world is expected to continue increasing given the growth rate of the population. While conventional gasoline and diesel vehicles are likely to increase in the future, the number of hybrid and plug-in hybrid vehicles will increase at a higher rate. In addition, fuel efficiency and emission regulations continue to become more stringent, resulting in continuing need to improve engines and power trains. In addition, the development of electric vehicles will accelerate and the development of technologies related to autonomous driving vehicles will become increasingly important.

HORIBA has a high market share in the EMS business and has expanded its business field to the entire vehicle power train areas by acquiring the MCT business. The acquisition of the ECT business in 2015 has led to entry into the engineering business for automotive development in general. HORIBA aims to contribute to development and testing of autonomous driving technology, which has a very high growth potential.

Growth forecasts of light duty vehicles by the power train method (source: IEA Energy Technology Perspectives 2012)



Enhanced efficiency of engines

HORIBA's service

Testing environment in order to cope with advanced emission regulations

Many countries across the world are introducing tighter emission fuel efficiency regulations and at the same time are making stricter requirements for testing equipment and procedure for real world emissions. Vehicle development is becoming more diversified, encompassing gasoline, diesel, hybrid, and plug-in hybrid vehicles, and industry must respond to prescribed regulations for each type. In such a complex environment, HORIBA will be providing measurement equipment that matches those requirements.



The emission gas testing lab and the centralized control room of HORIBA BIWAKO E-HARBOR

Development of electric vehicles

HORIBA's service

Power Train Testing, Simulation of Batteries and Electric Motors, Testing of Output of Motors, Evaluation of Charge and Discharge of Batteries by Use of a Simulator

Development of vehicles has become increasingly complex, due to the variety of applicable power sources and transmissions, such as hybrid and electric vehicles. Consequently the testing and measurement of power trains has become increasingly important, in addition to the traditional emission and fuel economy testing. HORIBA is able to provide flexible testing systems, which can be used equally for a system evaluation of power trains as well as for evaluation of electric motors.



The electric motor testing facility in HORIBA BIWAKO E-HARBOR

Development of Autonomous vehicles

HORIBA's service

Development of autonomous driving technology; providing of testing environment

In the ECT business, acquired in 2015, HORIBA is engaged in the development of Autonomous vehicles that use autonomous driving and remote control technology. An autonomous driving testing environment is available at HORIBA MIRA, Ltd. proving ground.



Panoramic view of HORIBA MIRA, Ltd.



Demonstration of Autonomous driving technology at HORIBA MIRA, Ltd.

Emerging market strategy: “HORIBA India Technical Center” opened

HORIBA India Private Limited opened the Technical Center in November 2016 in Pune in the western part of India. The city is known for hosting various automotive related companies. The Technical Center comprises test facilities equipped with HORIBA’s emission measurement systems and engine testing systems. The center also provides a place for live product demonstrations with real-time monitoring to HORIBA BIWAKO E-HARBOR. It also offers engineering services in response to current and future customer needs. HORIBA will enhance the capacity to respond locally as air pollution challenges are expected to increase and the need for developing high-efficiency and low emission vehicles increase in India.



HORIBA India Technical Center

The “Blackjack Project” supported “Technology Translocation (Sengu)”

In May 2016, HORIBA BIWAKO E-HARBOR started full operation. Relocation to the new facility went smoothly due to Blackjack Project kaizen initiatives and helped break-down department boundaries “Technology Translocation (Sengu)” was spearheaded by young members.

“Technology Translocation (Sengu)”

We intend to transfer our core technologies, accumulated in Kyoto over a period of 70 years, into the hands of a new generation of engineers that will lead to new development capabilities and the expansion of production capacity. We named it “Technology Translocation,” making it a driver toward technological innovation. The Japanese word “Sengu” translated as “Translocation” refers to the tradition of passing on of skills to build a shrine from one generation of carpenters to the next.

Blackjack



See details of the Blackjack Project on page 35.

Examples of Blackjack Project themes concerning the move to HORIBA BIWAKO E-HARBOR

1. Make smooth-flowing connecting lines
2. Aging without stagnation
3. Realize constant material injection

Other themes also contributed to the smooth process of this large-scale relocation.

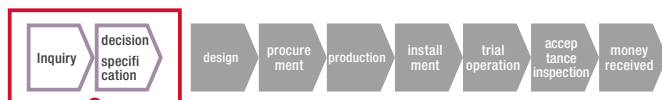
Example of the Blackjack Project

Let’s set up! One Team MCT!

Proactive initiatives to reduce the lead time

Specifications of some MCT products sold in Japan are determined based on coordination among customers, HORIBA’s sales department, and system design department. After the move to HORIBA BIWAKO E-HARBOR, the departments, which were located on different floors in the Kyoto Head Office, have all been gathered on the same floor. This move created more communication and increased cooperation. As a result, coordination times were reduced and the specification sheet was standardized, resulting in a 50% reduction in the lead time from preparation at the sales department to specification decision.

Such successful example will be shared with other departments within HORIBA BIWAKO E-HARBOR, so as to further enhance customer satisfaction.



50% reduction in lead time

Outcome of the activities

HORIBA **1** Reduction in the number of in-house processes

2 Smoother communication among departments, less stressful work environment



Customers **1** Shorter delivery time



Theme leader **Satoshi Okada**
HORIBA, Ltd. Production Division

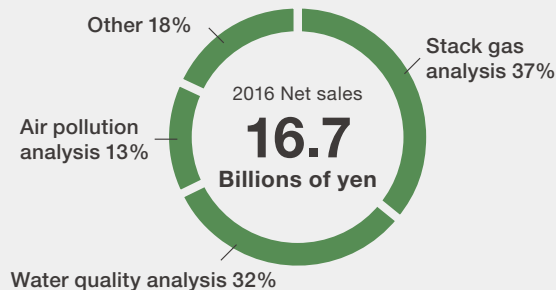


Panoramic view of the office in HORIBA BIWAKO E-HARBOR



Process & Environmental Instruments & Systems

Sales breakdown



HORIBA helps develop measurement technology for global environmental preservation and production and quality management processes

We supply a broad range of analysis and measurement instruments for analyzing air pollution, water quality, and soil quality. We play an important role in gas measurement and monitoring of industrial liquid waste in the energy and heavy chemical industries, including the electric power, steel, and chemical industries; purified water management for medical and semiconductor use; and constant monitoring and control of water quality in the pharmaceutical, food, and cosmetics fields. In essence, HORIBA's contribution supports public safety, security, and health in addition to global environmental preservation.

2016 results:

Robust sales of stack gas analyzers in Japan and process measurement systems in the Americas.

2017 forecasts:

Expect robust sales of stack gas analyzers and focus on expanding water-related businesses.

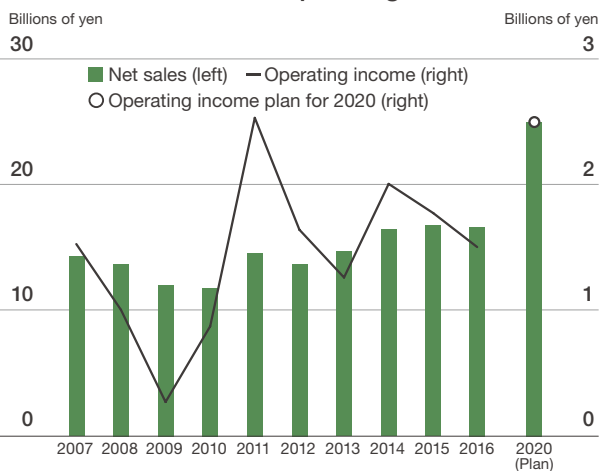
In 2016, sales of stack gas analyzers for thermal power plants and factories were robust in Japan. In addition, the process measurement systems business in the Americas was firm. However, deteriorated profitability in overseas projects resulted in a year-on-year decrease in segment operating income, despite a sales gain. In 2017 we aim at recording year-on-year increase in sales and operating income, by achieving continued firm sales of stack gas analyzers and by expanding the water-related business, mainly in Japan and Asia, as one of the priority measures of the MLMAP2020. See details of HORIBA's water business on page 16, featuring MLMAP2020.

Mid-long term strategy:

Value creation in the context of environmental regulations and process measurement equipment

In the environmental and analytical instrument markets in emerging nations, HORIBA will develop business by utilizing its accumulated know-how and experience in Japan, Europe, and the Americas. We also aim to increase market share in the global water quality measurement business, by collaborating with the water-related business of our other business segments. As to our process measurement equipment business, we aim to expand business in the petroleum refining and petrochemical industries, and intend to increase the recognition given to the HORIBA brand in Japan and overseas.

Net sales and operating income





Major products and targeted markets

Stack gas analyzers

HORIBA is the leading market share* in Japan for continuous emission monitoring systems used in plants and other facilities that generate gaseous emissions and soot. Our instruments have established a widely recognized credibility for robust and reliable sampling systems, which are essential in continuous measurement of a variety of gases. The analyzers are used in applications for power generation, petrochemicals, steel, paper, foods, and pharmaceuticals.



* HORIBA's estimate

Air pollution analyzers

HORIBA's air pollution analyzers have won high acclaim in the field as highly reliable analyzers that demonstrate excellent precision and long-term stability at ppb* concentrations. They are used in over 50 countries to monitor air quality by municipal governments and private industries. Demand has been expanding for PM2.5-related monitoring.



* ppb: parts per billion. One part per billion denotes one part per 1,000,000,000 parts. This notation is mainly used for describing low concentration measurements.

Water quality analyzers

HORIBA's products are used for monitoring and control in water treatment processes. We have a wide-ranging water quality product line to measure pH, the basic water quality indicator, as well as chemical oxygen demand (COD), total nitrogen, and total phosphorous. Our products have been highly evaluated in the water quality analysis field by companies in the electric power, gas, petrochemical, steel, paper, food, and pharmaceutical industries.



HORIBA's water quality measuring instruments are being applied to the wastewater treatment facilities in Myanmar, as a part of a model project supported by the Ministry of the Environment of Japan

In Myanmar, specific regulations, standards, or penalties for industrial waste have not yet been established, and most factories are not equipped with wastewater treatment facilities. Having conducted an environmental survey in Myanmar, HORIBA made a proposal and introduced its water quality measuring instruments in the "Model Project for Improvement of Water Environment in Asia," which is promoted by the Ministry of the Environment of Japan, jointly with Hitachi Zosen Corporation. HORIBA will continue to contribute to the promotion of environmental preservation in emerging countries and focus on enhancing the HORIBA brand.

Maintenance work of measurement instruments in Myanmar



North American process measurement system business is steadily growing.

The process measurement equipment business we acquired from the U.S. corporation Cameron in 2013 generated about ¥1.8 billion in sales and recorded operating income for the second consecutive year in 2016. We have established a structure that enables us to provide collectively, the equipment needed in the process of petrochemical refining, dissolution, and processing. In March 2017, we relocated to a new expanded office in Houston, a U.S. center of the petrochemical industry, to accelerate business expansion in the process measurement field.



Analyzer house



Houston office

Major products and market shares

Note: Market shares quoted are estimates by HORIBA.

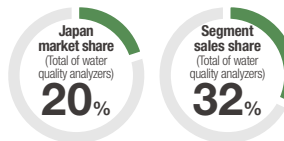
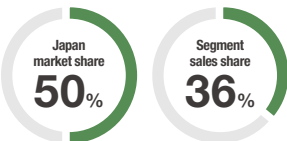
Stack gas analyzers

These analyzers provide highly sensitive and precise measurements of NOx, SO₂, CO, CO₂, and O₂ constituents in gases emitted by boilers and furnaces in thermal power stations and refuse incineration facilities. A single unit can simultaneously and continuously measure all five gases. HORIBA has the top market share in this competitive market in Japan and seeks sales growth in the global market.



H-1 series of industrial water quality analyzers

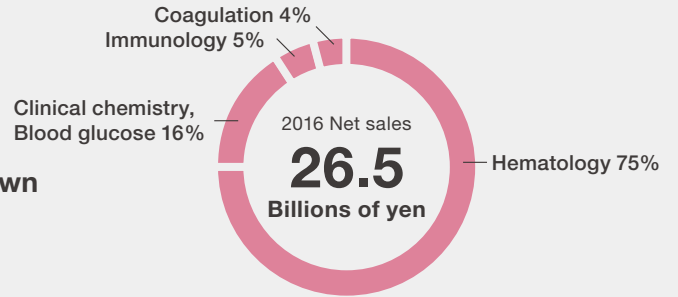
These industrial water quality analyzers perform in a wide range of applications from pure water for semiconductor and food to water treatment to sewage and industrial wastewater. They confirm progress in wastewater treatment processes and control water treatment equipment. Moreover, we have developed pH electrodes that resist damage in harsh environment by strengthening their toughness, thereby reducing the frequency of electrode replacement and maintenance operations. By responding to expanding worldwide needs for remote monitoring services in water and sewage quality management and process monitoring, HORIBA pursues sales growth in the global market.





Medical-Diagnostic Instruments & Systems

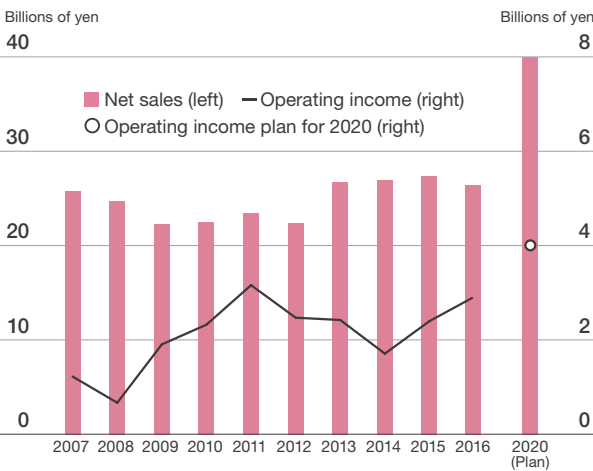
Sales breakdown



Contributing to a healthy life through in-vitro testing equipment

In the global market of in-vitro diagnostic; HORIBA provides instruments and reagents for blood sample testing throughout the world. The segment's business model is based on recurring revenues generated from sales of reagents. We aim to ensure stable earnings by expanding our installed base of medical diagnostic instruments. In particular, HORIBA's strength is in small and medium-sized hematology analyzers in the diagnostic market for Point of Care Testing (POCT), including small to medium-sized hospitals, clinics, test centers and surgery centers.

Net sales and operating income



2016 results:

Robust sales of new products in Japan

2017 forecasts:

Launch new products in Europe

In 2016 sales of the hematology and C-Reactive Protein (CRP) analyzers, which were launched in 2015 in Japan, were favorable. However, the yen's appreciation against the euro resulted in a decrease in the value of European sales expressed in yen. As a result, segment operating income increased year-on-year despite sales decreased.

In 2017 we will continue to focus on expanding sales of hematology and CRP analyzers in Japan. In addition, we plan to launch new medium and large-sized hematology analyzers in Europe. However, anticipating stagnant demand conditions in Europe and the Americas, segment sales and operating income are expected to decrease year-on-year.

Mid-long term strategy:

Increase sales by launching new products and expanding into new areas

At present, HORIBA's strengths reside in having development bases in Japan and France and a local supply infrastructure of testing reagents in China, India, and Brazil, with their high expected demand for reagents. We aim to globally introduce small and medium-size hematology and CRP analyzers, which are highly regarded in Japan, and to launch at an early date new medium- to large-sized products. Moreover, we are interested in cooperating with other companies through M&A and OEM arrangements, so as to expand into new areas in the in-vitro testing market.

Business development by test category

HORIBA aims to be acknowledged as a clinical solution partner by strengthening the data management and automation areas and expanding product development either by ourselves or through collaboration with other companies.

Test category		Clinical chemistry	Hematology	Immunology	Coagulation
Market size		¥2 trillion	¥0.35 trillion	¥2 trillion	¥0.2 trillion
Hospitals	Large hospitals Testing centers	Clinical chemistry analyzers	Hematology analyzer systems	Field in which HORIBA exhibits strength	
	Small and medium-sized hospitals		Small and medium-sized hematology analyzers	CRP analysis	Coagulation reagents
Private practitioners	Blood glucose measurement systems				
Hospital units and surgery rooms (POCT)					

1 Launch of new products in the medium and large-size hematology analyzers

“HELO Solution,” a brand new product in the medium and large-sized hematology analyzers

In 2017 HORIBA will launch new medium and large-sized hematology analyzers with the HORIBA Evolutive Laboratory Organization (HELO) Solution, a hematology automation solution which maximizes the performance in the laboratory under all types of operating conditions, including urgent testing and special testing, in addition to routine testing.

HELO Solution provides an automation conveyance system with flexible number of analytical modules and flexible modular configurations, depending on the customer's work flow needs. It provides comprehensive optimal solutions to the laboratory, through support functions, providing useful statistical data for enhancing efficiency of the laboratory, in addition to collective management of test data.



HORIBA participated in the 6th TICAD VI

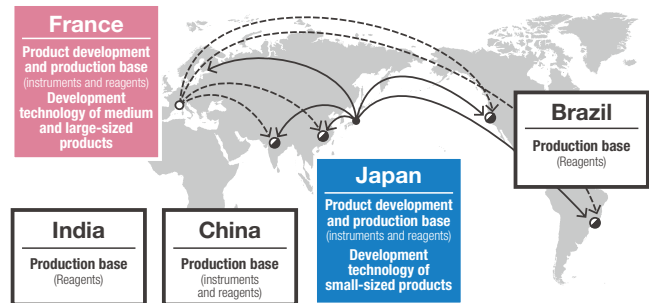
HORIBA participated in the 6th Tokyo International Conference on African Development (TICAD VI) in August 2016. HORIBA ABX S.A.S. in France has had a presence in North Africa, mostly in Francophone countries, for about 30 years. In Africa, electricity supply tends to be unstable due to planned interruptions and other reasons, and purified water is hard to procure, resulting in adoption of expendables that do not need cleaning. In order to reduce the problems caused by various diseases, including malaria and other infectious diseases, HORIBA contributes to improving the living of African people through provision of its in-vitro diagnostic instruments.



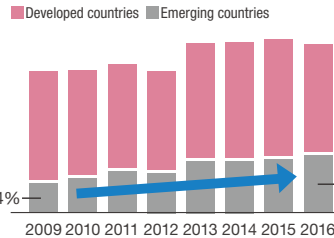
HORIBA's hematology instrument used in Africa

2 Expanding in emerging countries, by use of the global network

Global strategy and emerging market development



The Medical-Diagnostic Instruments & Systems segment's sales in emerging countries



HORIBA's strengths in emerging countries

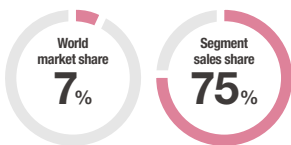
- 1 Global network established by HORIBA ABX S.A.S.
- 2 Products that enable high-precision and stable measurement in various environments
- 3 A stable supply network of reagents (consumables), produced in the volume-consumption regions

Major products and market shares

Note: Market shares quoted are estimates by HORIBA.

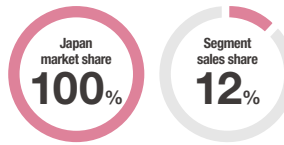
Hematology analyzers

Blood tests are essential for diagnosis and health assessment of people and animals. These analyzers check red and white blood cell counts as well as hemoglobin and platelet counts.



Hematology and CRP analyzers

This is the first analyzer in the world to simultaneously measure blood cell counts and C-Reactive Protein (CRP), which the body produces in response to internal inflammation, thus facilitating faster and more accurate diagnosis.

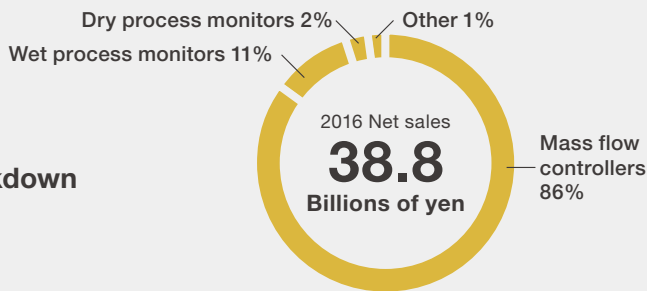


gnostic



Semiconductor Instruments & Systems

Sales breakdown



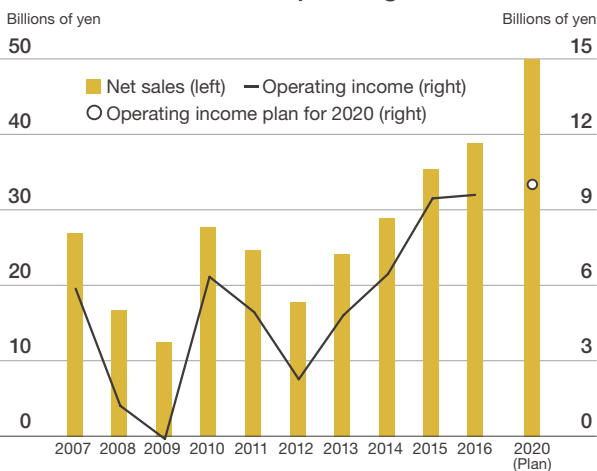
Contributing to yield enhancement and technology innovation in semiconductor manufacturing processes with HORIBA's flow control and measurement technologies

HORIBA's main products are mass flow controllers, which are devices that control gas and liquid flows in the semiconductor manufacturing process (front-end). They have a leading global market share*, largely on the strength of their flow control technology that enables yield enhancement and miniaturization in the semiconductor manufacturing process. HORIBA, which also provides chemical concentration monitors, aims to contribute to the semiconductor industry by providing customers with high-level solutions that support technical advances in process technology.

* HORIBA's estimate



Net sales and operating income



2016 results:

Robust investment demand by semiconductor manufacturers

2017 forecasts:

Maintain market shares in the favorable semiconductor market

In 2016 on the back of high-level capital expenditures by semiconductor manufacturers, sales of mass flow controllers to semiconductor production equipment (SPE) manufacturers in Japan and Asia increased significantly, despite some impacts from the yen's appreciation. As a result, segment sales and operating income recorded all-time highs.

While capital spending by the semiconductor industry is expected to remain at a high level in the first half of 2017, we believe we have to cautiously monitor their capital spending outlook in the second half of the fiscal year and respond promptly to the needs of our customers, so as to maintain our market shares in the favorable semiconductor market.

Mid-long term strategy:

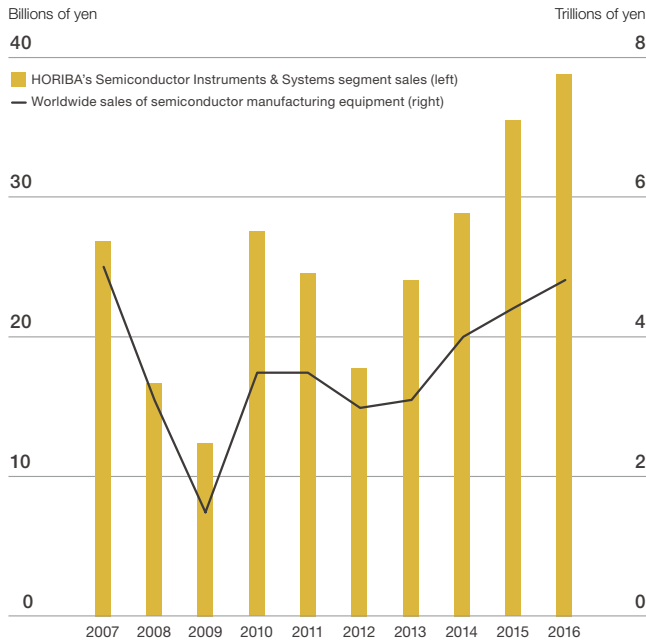
Enhance market positioning of mainstay products

We will further enhance our flow control technology, which has been accumulated primarily in mass flow controllers. We also aim to grow sales of chemical concentration monitors, used in semiconductor wafer cleaning processes. In addition, we will combine our flow control technology and analysis and measurement technology so as to enhance development of new products that satisfy customer needs.

Meanwhile, we intend to apply our flow control technology to other industries by promoting product development for energy, petrochemical, pharmaceutical, food and other markets.



HORIBA's Semiconductor Instruments & Systems segment sales compared to worldwide sales of semiconductor manufacturing equipment



Enhancing semiconductor-related production capability and responding to customer needs

In July 2016 HORIBA decided to expand the HORIBA STEC Aso Factory in Nishihara Village, Kumamoto Prefecture, Japan. This factory, a driving force of growth in the segment, will be expanded in total floor area by about 50% so as to build a more stable supply capacity of mass flow controllers to satisfy further increases in demand. This factory, since its start in 1988, has been accepted as a community member by the people in Kumamoto Prefecture. Although the factory was struck by the Kumamoto Earthquakes of April 2016, it resumed operation in two weeks, with water supply and electricity recovery facilitated by local people including local employees. This has led to our decision to expand the Aso Factory in order to increase use of its strength in growing together with the community and to contribute to segment growth.



On July 30 2016, the expansion site agreement was concluded at the Kumamoto Prefectural Government Office.

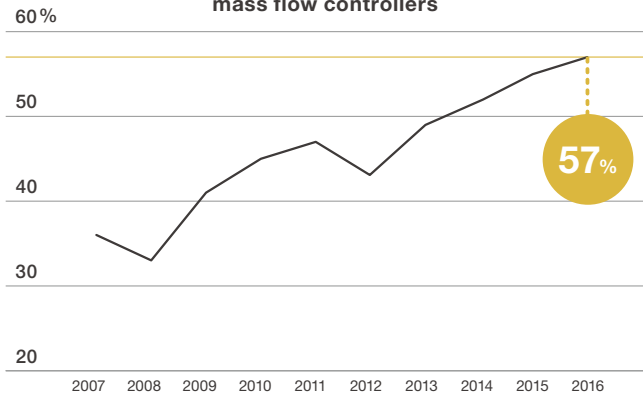


Planned completion in November 2017

HORIBA's global market share for mass flow controllers

HORIBA has maintained a share of more than 40% of the global mass flow controller market since 2009. This has been achieved because we successfully met our customers' needs through new product introductions and expanded production capacity even during the semiconductor industry's downturn in investment in 2009, and through to its recovery stage in 2010. More recently, our market share has risen as we launched products that responded to changes in production technologies caused by miniaturization and more multi-layer semiconductor production processes. Noteworthy are our differential pressure type mass flow controllers, which are fully capable for use by the next-generation of semiconductor production processes. In our view, this is due to the success of our balanced management, which enabled us to supply the needed funding for new product development and production capacity even during a downturn in demand. At the same time, we elevated our technical capability to better satisfy demand from semiconductor manufacturers.

HORIBA's market share for mass flow controllers

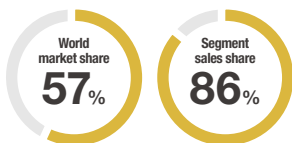


Major products and market shares

Note: Market shares quoted are estimates by HORIBA.

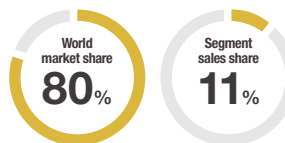
Mass flow controllers

These high-precision gas and liquid controllers regulate flow rates in semiconductor manufacturing processes, typically in thin-film formation processes. They are indispensable components for high quality semiconductor and LED production.



Chemical concentration monitors

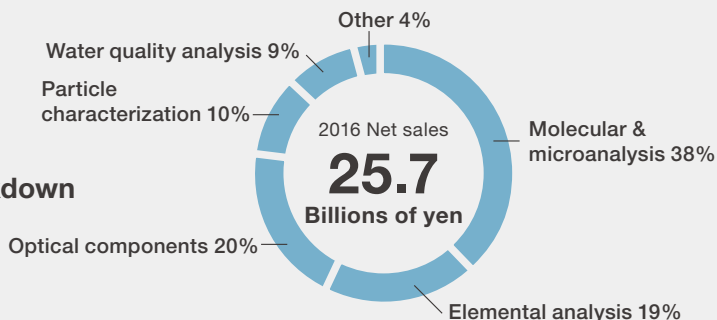
These compact units are used in semiconductor manufacturing to monitor concentrations of chemical cleaning agents. They ensure cleaning fluids are precisely delivered and properly used, thereby optimizing the cleaning process and boosting production yields.





Scientific Instruments & Systems

Sales breakdown



HORIBA provides over 500 types of instruments for use at the leading edge of scientific technology

HORIBA began its history from the R&D function leading to Japan's first glass electrode pH meter. HORIBA's analyzers use gas analysis by infrared rays, X-ray solid analysis, and dispersion technologies such as Raman or fluorescence spectroscopy. HORIBA's analyzers provide solutions for data acquisition and analysis in niche markets to support advanced research in pursuit of innovative products and processes that will enhance our lives and the world that surrounds us. HORIBA's analyzers are widely used in basic research, foreign-object examination and defect analysis for pharmaceuticals, food and electronic components, forensic science, archaeological surveys, and others. Additionally, the Scientific Instruments & Systems segment develops basic analytical methods and core measurement technologies, which play key roles in providing new technologies to the four other business segments of HORIBA.



2016 results:

Robust sales of spectrometers for R&D applications to universities in Japan and China

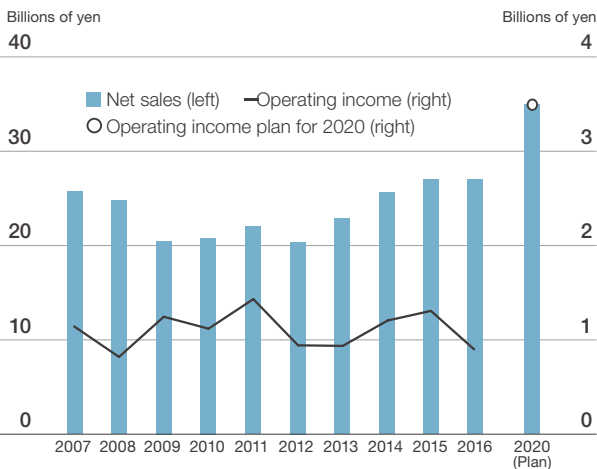
2017 forecasts:

The demand in Asia is high and sales will continue to increase by launching new products that combine the Group's technologies

In 2016 sales of instruments and systems for R&D applications to universities and other institutions in Japan and China were robust. The yen's appreciation against the euro resulted in a decrease in sales in Europe in yen terms. Consequently, segment sales and operating income decreased year-on-year.

In 2017 we anticipate solid demand in Asia and will continue to promote sales of products that satisfy needs of customers.

Net sales and operating income



Mid-long term strategy:

Incorporate customers' views in product development and hence market creation

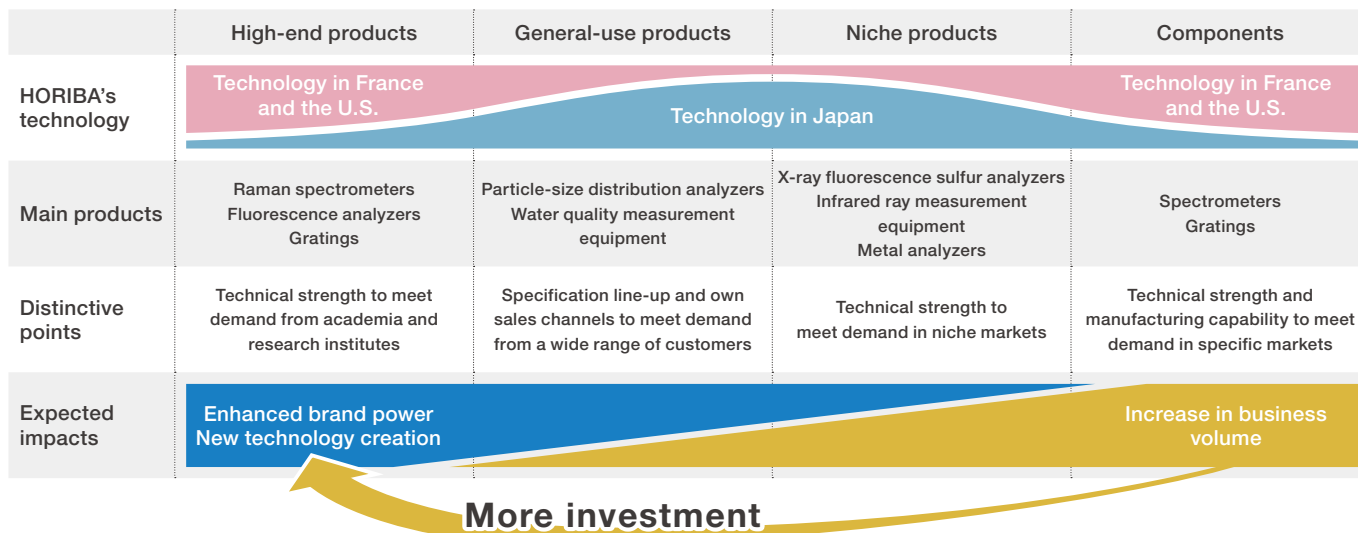
It is our challenge to create new value in the analysis and measurement business, including energy, automobile, biotechnology, and drug discovery areas. In addition to continuing to actively increase sales in niche markets, we will work to expand applications of our products. In order to increase the understanding of the issues our customers face, we will endeavor to undertake joint projects with them. Working together will enable our research and development teams to anticipate the needs of the customer as those needs arise, as we have already done by creating a custom made instrument for a manufacturer of precious metal products and a special device for a university laboratory engaged in advanced research.

In addition to providing analysis and measurement technologies to the other four business segments, the Scientific Instrument & Systems segment will improve profitability.

Global expansion of use of technology in and emanating from three bases, Japan, France, and the U.S., for achieving sustainable growth

Historically, segment growth was driven by product development utilizing the strengths of our operations in Japan, France, and the U.S. and our products play a role in the frontline of a wide range of corporate and university research institutions which provide cutting-edge technologies. Having a diverse product line-up that covers both high-end products and components, HORIBA utilizes technologies and brand power to meet a wide range of customer requirements which allows for re-investment with the aim of long-term sustainable growth.

Business model of the Scientific Instruments & Systems segment



SOCIAL



Co-sponsored a Hackathon* by the leading science and technology French institute École Polytechnique and the University of Tokyo

HORIBA sponsored a 'Hackathon' that brought together students from the University of Tokyo and the École Polytechnique to focus on computer programming and prototyping. The event, which took place in February 2017, had a theme of developing tools for research centers and manufacturing. Innovative prototypes such as a wearable necklace-style information terminal were presented. HORIBA France S.A.S. constructed HORIBA Europe Research Center in a site adjacent to the École Polytechnique and has promoted industry-academy cooperation through internship and other activities. HORIBA will continue to contribute to the development of science and technology by growing its Scientific Instruments & Systems segment, using its global network.



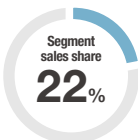
* Hackathon is a portmanteau of the words "Hack" and "Marathon," where "Hack" is used in the sense of exploratory programming. This term originated in the U.S. information technology industry. A hackathon is a sprint-like event in which teams of computer programmers and designers compete on ideas and develop solutions within a given number of hours or days.

Major products and market shares

Note: Market shares quoted are estimates by HORIBA.

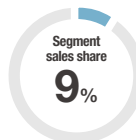
Raman spectrometers

Raman spectroscopy is a spectroscopic technique that provides information about the molecular structure of molecules by measuring their vibrational modes. These vibrational modes act as a molecular fingerprint offering quantitative measurements which can be used to identify the chemical under analysis. In recent years, Raman spectroscopy has attracted attention for new applications in material research. Raman has a very weak light scattering mechanism, so a highly-sensitive and optimal optical design is necessary. HORIBA's outstanding know-how in optics-related technology, largely from its acquisition of Jobin Yvon, has been successfully applied in the core development of our extremely high performance Raman spectrometers.



pH meters

HORIBA is recognized as one of the top pH meter brands beginning with our development of Japan's first glass electrode pH meter in the 1950's. HORIBA offers a full pH product line to satisfy diverse customer needs ranging from desktop models to support laboratory research, to rugged and portable instruments for field applications measuring river water, groundwater, and wastewater.



HORIBA's thoughts on CSR

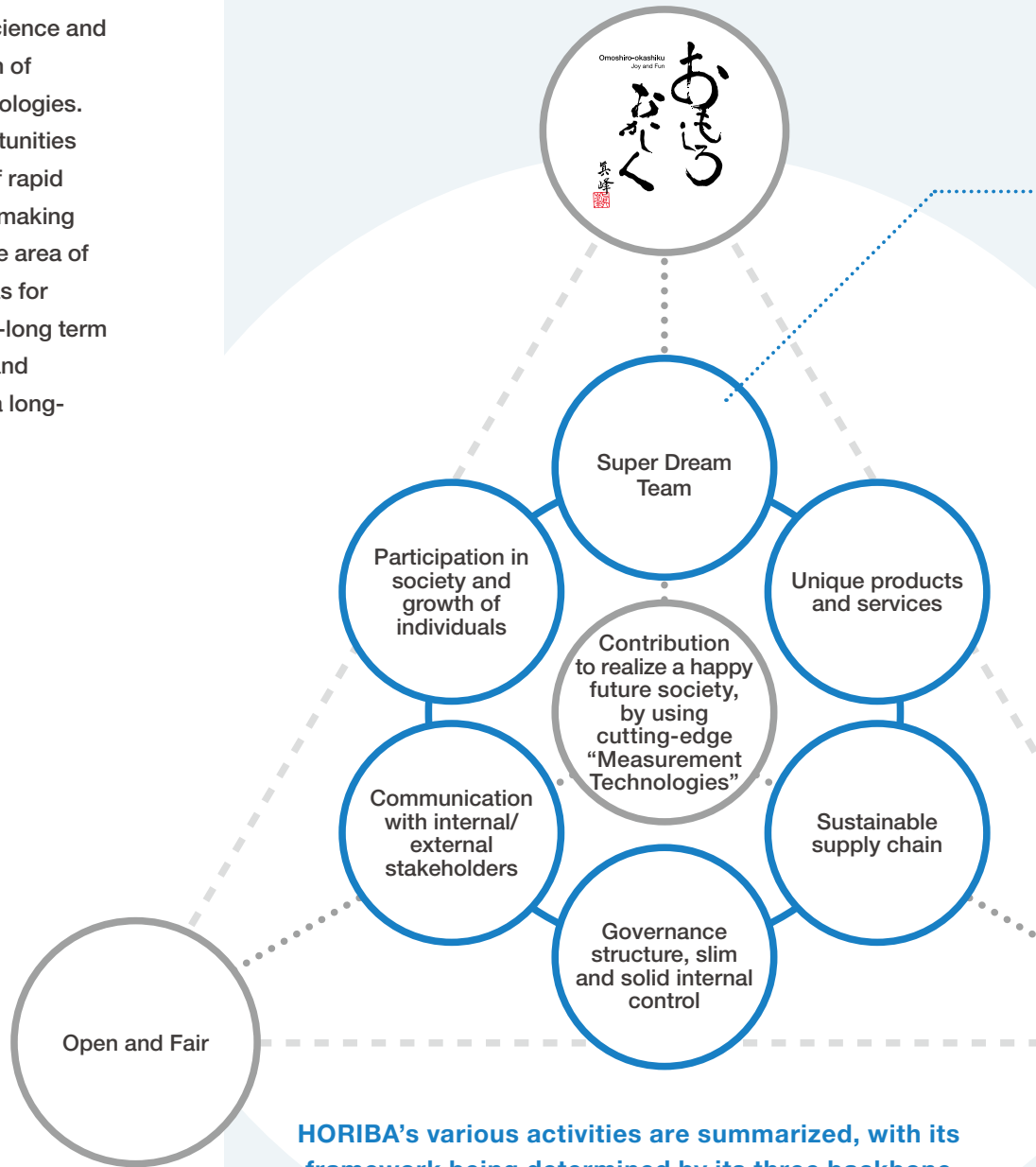
Promote CSR through business activities

HORIBA's materiality

Since its foundation in 1945, HORIBA has worked to grow with the mission of contributing to the progress of science and technology, through the provision of analysis and measurement technologies. In anticipation of risks and opportunities presented by the social impact of rapid globalization and IoT, HORIBA is making efforts to identify key topics in the area of science and technology and areas for contribution to achieving the mid-long term management plan MLMAP2020 and serving company interests from a long-term perspective.

HORIBA's framework for the creation of corporate value

Expressed through Design Sugoroku



Design Sugoroku is a modification of a very old Japanese board game that relates all major items to be considered in making a design. This is a framework that enables all related things that need to be considered to be obvious at a glance. For example, if you change the size of your business card, you have to consider its impact on your card case or a pocket of a business suit. HORIBA is using this to summarize the relationship among all activities that form invisible values, in addition to business activities, as these activities influence each other.

HORIBA's various activities are summarized, with its framework being determined by its three backbone values: the Corporate motto "Joy and Fun," "Open and Fair," and "Ownership and Challenging Spirit."



Super Dream Team

- The mission of the "HORIBA Stained Glass Project" is to explore HORIBA's diverse talents and skillsets, regardless of the employees' gender, nationality, age, disability¹, or other differences, and to promote organizational growth. [Web Link](#)
- "Balanced Management" and "Matrix Organization" to enhance the operational base [P35](#)
- Internal education system that promotes quality [Web Link](#)



Unique products and services

- Global provision of environmental measurement instruments
- Expansion of applications by sharing technologies between business segments and through product development; integration and growth of the water related business [P16](#)
- Promotion of global projects in cooperation with universities and research institutions [P32](#)
- Enhancement of corporate value by seizing global M&A opportunities [P3](#)



Sustainable supply chain

- Efficiency enhancement at HORIBA BIWAKO E-HARBOR via production process reform [P24](#)
- Obtaining ISO22301 accreditation in the Semiconductor and Medical-Diagnostic Instruments & Systems segments deploying lessons learned from the response to the 2016 Kumamoto Earthquake [Web Link](#)
- Corruption prevention; rejection of forced labor and child labor [Web Link](#)

<http://www.horiba.com/to-our-stakeholders/>



¹ HORIBA is a member of general incorporated association Accessibility Consortium of Enterprises (ACE) and promotes employment of people with disabilities.

See details on HORIBA's website:

<http://www.horiba.com/about-horiba/diversity/human-resources/>

² IMS (Integrated Management System) is an integrated management system of more than one ISO and OHSAS.

³ UNGC: the United Nations Global Compact <https://www.unglobalcompact.org/>

⁴ The CDP (formerly the "Carbon Disclosure Project"), a non-profit organization based in London, works with institutional shareholders to disclose the environmental strategy and greenhouse gas (GHG) emissions of major selected corporations in the FTSE Index. The CDP sends questionnaire to major companies across the world, analyzes and evaluates the companies' self-reported data, and discloses the results to investors. See <https://www.cdp.net/en>



Governance structure, slim and solid internal control

- Appointment of outside officers since our foundation [P39](#)
- Enhancement of a stable business base, assisted by the IMS² [Web Link](#)
- Global adoption of the ERP (Enterprise Resource Planning) system to integrate management of operation information [Web Link](#)
- Adoption of an indicator for improving capital efficiency [P16](#)



Communication with internal/external stakeholders [Web Link](#)

- Identification of important information; investor relations (IR) activities and proactive disclosure based on Open and Fair
- Promotion of global dialogue with business partners and customers; continual meetings with sales companies and subcontractors; Technical Olympics, technology seminars for customers, etc.
- Signatory to the UNGC³; dialogue with outside institutions, such as CDP⁴
- Internal communication with employees and executives at product launch meetings, etc.



Participation in society and growth of individuals

- Use of the Blackjack Project and HORIBA COLLEGE for growth of individuals and the organization [P35](#)
- Workstyle innovation to support designing "Decent Work" and a prosperous lifestyle [Web Link](#)
- Living in good harmony with nature and revitalizing communities through use of HORIBA Blueberry Farm, "Joy & Fun" and others [P36](#)

Process of identifying material topics

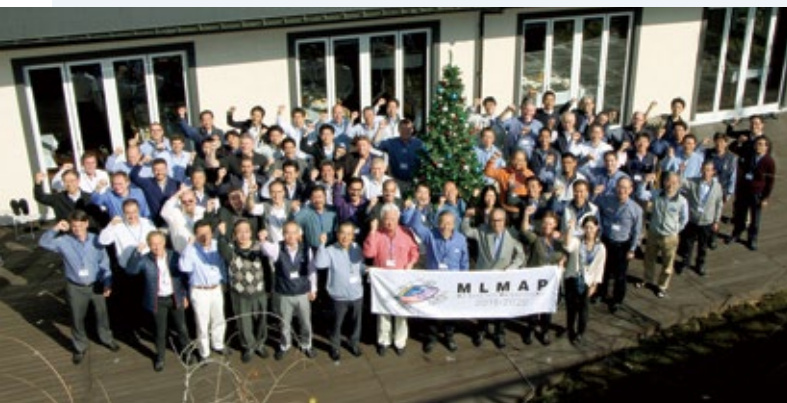
- 1 The ESG Workshop, which is comprised of the Junior Corporate Officer in charge of CSR at HORIBA, Ltd. and core members of each segment, was launched (September 2016).
- 2 HORIBA's various activities (around 100) were screened by using guidelines on SDGs* and ESG investments for reference.
- 3 HORIBA's corporate philosophy and strength were confirmed and areas and frameworks where HORIBA can or should contribute in solving social issues or do so in relation to stakeholders were studied.
- 4 The current initiatives were categorized in a framework and were approved by the HORIBA CSR Promotion Committee (page 40).

*The Sustainable Development Goals (SDGs), officially known as "Transforming our world: the 2030 Agenda for Sustainable Development," is a set of 17 "Global Goals" with 169 targets between them. The United Nations General Assembly adopted the agenda in September 2015. See <https://sustainabledevelopment.un.org/?menu=1300>

What to do next

- 1 Identify top material issues from a stakeholder/social perspective and MLMAP2020. Extract more priority issues and set up an action plan.
- 2 Decide on the global CSR framework and material issues of MLMAP2020, with approval of the Board of Directors of HORIBA Ltd.
- 3 Understand the status of activities on a global basis
- 4 According to the action plan linked to the core business, set up specific goals, prioritize issues, and decide key performance indicators (KPI) to accelerate the activities.
- 5 The HORIBA CSR Promotion Committee will regularly update the situation or modify the plan, and report to the Board of Directors.

Ownership and Challenging Spirit



Organizational structure and talents

Organizing a Super Dream Team

Under the slogan of "HORIBA Group is One Company" since 2004, HORIBA has promoted "Balanced Management" and "Matrix Organization" to manage the Group companies as a single integrated entity. With the aim of further developing this system, we are using the "HORIBA Stained Glass Project" to promote diversity, organize a Super Dream Team of people with diverse abilities and characteristics, and accelerate the reinvention of our existing businesses and the creation of new businesses in keeping with the new mid - long term management plan MLMAP2020.

Balanced management



We aim for a well-balanced management as a single, integrated entity, without excessive dependence on any one segment or region, in order to achieve sustainable growth of our five business segments. Even if the business environment of one business segment becomes stagnant, we are able to achieve sustainable growth by flexibly utilizing our management resources and ensuring a good balance in business investment.

Matrix organization



HORIBA uses matrix management across its five business segments and three operating regions. This is a global organizational framework for executive decisions on strategies and plans by business segment that removes barriers such as separation of countries, regions, or group companies. This framework has enabled a globally-integrated business operation. We will continue to exploit the benefits of the multiplier effect from successful examples and strengths in one segment or one region to others and improve HORIBA's corporate values.

Blackjack Project

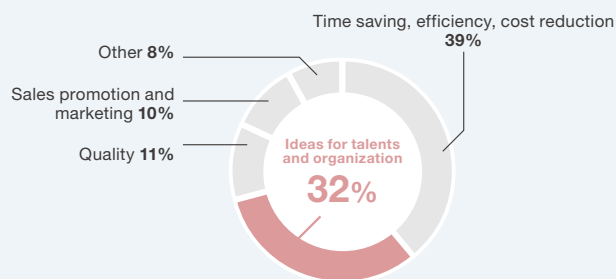
1. What is the Blackjack Project?

The Blackjack Project, which began in 1997 with the objective of changing the awareness and activities of employees, resulted in the submission of 819 suggestions and proposals for change in 2016. In addition to improvement in operational efficiency and cost reduction, personnel development and enhancement of organizational strength are among popular proposals, demonstrating one aspect of HORIBA's corporate culture: organizational reform by employees. We hold an internal World Cup competition among candidate proposals from each country where we operate. This competition also provides an opportunity to demonstrate to management and employees how we make our belief a reality. The Blackjack Project has the important function of sharing corporate culture, experience and knowledge and is one of our important initiatives to realize a Super Dream Team.

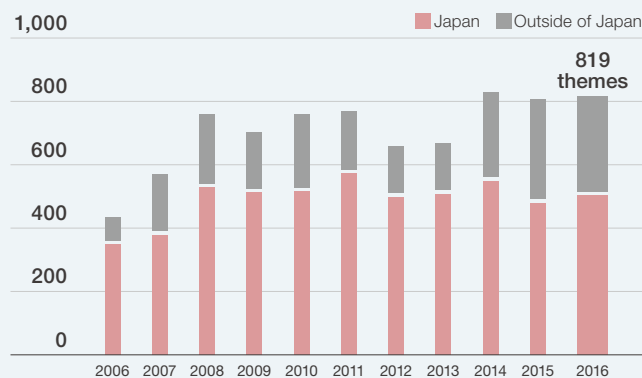
The relocation to HORIBA BIWAKO E-HARBOR, which started full operation in May 2016, was accomplished by executing a cross-organizational project, "Technology Translocation (Sengu)." The specific example is presented on page 24 for the Automotive Test Systems segment in this HORIBA Report 2016.

2. Number of activity themes

Proposals submitted in 2016 e.g. HORIBA, Ltd.



Number of proposals



HORIBA Stained Glass Project



In January 2014, we launched the Stained Glass Project. Its mission is to make HORIBA stronger by the continual creation of new value through HORIBARIANS' diverse talents and skillsets, regardless of their gender, age, nationality, disability, or other differences. We have promoted activities aimed at more engagement of women in the workplace, workstyle innovation, and global communication in which HORIBARIANS shine, and the Stained Glass Project became to have a promotion office as a corporate division since 2017.

SOCIAL



Use of idled fields for revitalizing the community and enhanced education and benefit programs



HORIBA Blueberry Farm "Joy & Fun" opened in April 2012 by our renting fallow fields in Takashima City, Shiga Prefecture. Our newly-joined employees do agricultural work and other employees and their family members also participate in the harvesting of blueberries and vegetables. It is an important undertaking for HORIBA, along with our Biwako Factory and the training center "Fun House." It is noteworthy that effective use of fallow fields not only benefits employees but also contributes to revitalize the community.

Ms. Maki Moriguchi, Leader of the Stained Glass Project (Department Manager of Stained Glass Project Office since January 2017), discussed issues such as the key points of the Project activities and its goals.

Interview

I have been involved as a leader of this initiative since the project launch in 2014. Actually, for about 20 years, President Mr. Horiba has been thinking that HORIBA's strength lies in the diversity of its workforce, just like a stained glass windows, talents assembled of various colored pieces. The project division will continue to make efforts to help employees realize this strong point of HORIBA, and make a scheme to accelerate diversity management by using various programs of personnel affairs and through global communication. In Japan, Workstyle Innovation is a big social movement. Such a concept has been becoming better recognized in our factories and offices partly due to this project, which began in 2014.

Going forward, I am hoping to create a catalyst or a scheme to help our employees have a sense of being an important member of a Super Dream Team. Concerning the issues in workplaces from the perspective of the Stained Glass Project, we are coordinating with the Blackjack Project so that efforts for improvement continue as a team effort and contribute to the business. I have also learned a lot from successful examples of the Blackjack Project to infiltrate its thoughts and establishment of original scheme. The biggest challenge for me is to make this activity better known globally. While the activity has mainly been centered in Japan, the concept of the Stained Glass should be shared by the entire HORIBA organization. In 2016, I attended a global-level meeting of those in charge of personnel affairs. A talents manager from Europe suggested to me that "With regard to engagement of women at workplace, being Open and Fair and emphasizing process evaluations are a better way rather than focusing numerical targets for managers." I was encouraged by learning of her own experience.

Three pillars of the Stained Glass Project

- 1 Advance HORIBA's strength so as to promote diversity
- 2 Make more flexible choices in workstyle
- 3 Raising productivity

Maki Moriguchi

Maki Moriguchi joined HORIBA, Ltd. in 1996. From 1998 she worked as secretary to the President. After taking maternity leaves twice, she was appointed as a manager of the secretariat in 2014. In the same year, she launched the HORIBA Stained Glass Project and became its project leader. At present she is engaged in promoting diversity as Department Manager of the Stained Glass Project Office.



Technologies



Accelerating investments in basic analytical and measurement technologies and application development

Investment in core technologies

The development of analytical technology and engineering technology is vital to HORIBA as an analytical and measurement equipment manufacturer. We have maintained R&D investment at the level of 7-8% of sales, even during economic downturns when our competitors reduced their investments. This strategy has helped to boost our market share during subsequent upturn phases. In 2009, during the global economic recession triggered by the financial crisis, the Semiconductor Instruments & Systems segment recorded losses. However, supported by stable earnings of the Medical-Diagnostic and Scientific Instruments & Systems segments, we were able to maintain the same level of overall R&D investment in the Semiconductor segment, which has resulted in the segment's favorable operating performance today.

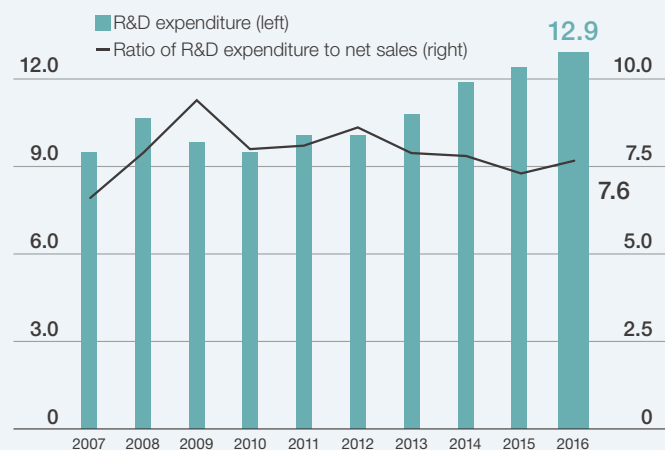
We firmly believe this investment policy will contribute to our future growth and profitability improvement. HORIBA aims to improve the efficiency of our R&D investments and realize a higher operating income.

Investment in new technologies and new services

In the Automotive Test Systems segment, HORIBA acquired its Mechatronics (MCT) business in 2005 and Engineering Consultancy & Testing (ECT) business in 2015 to expand HORIBA's scope of technologies to the engineering area of next-generation automotive development. Using IoT technology, HORIBA will further advance in remote monitoring and data management of analytical and measurement systems to provide new added value, and achieve business growth by contributing to customers' energy saving and enhancement of efficiency.

R&D expenditure and ratio of R&D expenditure to net sales

Billions of yen %
 15.0 12.5



From core technology to product development

HORIBA strives to effectively allocate its R&D resources to specific analytical technologies, apply them to product development in five different business segments, and achieve product releases efficiently.

HORIBA's major analysis and control technologies (by scale of sales)

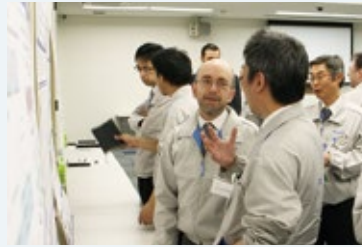
	Automotive Test Systems	Process & Environmental	Scientific	Medical-diagnostic	Semiconductor
Infrared measurement Technology for real-time analysis of elements in gases	●	●	●		●
Gas flow control Technology to measure and instantly control the flow of gases	●	●			●
Particle-size distribution analysis Technology to measure particle diameter and particle distribution	●	●	●	●	●
Spectroscopic analysis Technology for analysis of visible light			●		●
Liquid ion analysis Technology to measure pH, sodium, potassium, and other ions		●	●	●	●

HORIBA Group IP (Intellectual Property) World Cup 2016 & Technology Summit

Our first in-house IP World Cup competition was held in 2011, with the aim of encouraging creation of HORIBA technology which can initiate the next growth phase of HORIBA. HORIBA's numerous unique technology and intellectual property have propelled growth of businesses. In the Sixth World Cup, in 2016, out of 19 applications, including 11 from overseas, three applicants from various parts of the world were invited to the award ceremony and the in-house seminar held at the headquarters in Kyoto.

The Technology Summit was concurrently held, to encourage technical exchange across different business segments, so as to realize development by the united group, through the effective use of HORIBA's core technology and engineering technology. Poster sessions were performed on 37 themes, including some from Group companies, creating a scene for engineers to exchange opinions.

Toward achieving MLMAP2020, the Technical Super Dream Team is making concerted efforts to create technology synergies only HORIBA can produce.



Technology Summit



IP World Cup 2016

The total number of applications in the six years since the inception of the HORIBA Group IP World Cup
104 themes
 (from 15 global locations outside of Japan)

— Details of other technology/quality-related topics are presented on the website. —

Integrated Management System that helps realize sustainability

<http://www.horiba.com/about-horiba/integrated-management-system/>

“Eco-Friendly Products” that help realize longer usable lives and minimization of energy consumption

<http://www.horiba.com/about-horiba/environmental-activities/environmental-compliance/>

Basic Policy on Corporate Governance

Based on the corporate philosophy of “Open and Fair,” HORIBA has pledged to (1) establish an organizational structure that promptly responds to changes in the business environment, (2) improve its managerial monitoring of performance and (3) enhance compliance-related arrangements. These objectives have the aim of establishing a world-class governance structure. At the same time, we are committed to establishing good relationships with all stakeholders, including owners (shareholders), customers, employees, and local communities.

In addition to proper information disclosure, we seek to promote constructive dialogue with our owners (shareholders), contributing to our sustainable growth and mid-long term improvement in corporate value.

Corporate Governance System

HORIBA has adopted the type of organization defined as a “Corporation with Board of Corporate Auditors,” in the Companies Act.

As of May 2017, the Board of Directors is comprised of seven members, including three independent outside directors, including one woman. In fiscal 2016, the Board met 12 times in order to make decisions more promptly than in the past and to augment managerial capability. To avoid managing with an introverted approach, HORIBA has, since the company’s origin in 1953, always appointed at least one director and one corporate auditor from outside the company.

In addition, HORIBA introduced a corporate officer system in 1998 to make smooth and agile execution of operations

under the supervision and guidance of directors. At present (May 2017), 21 corporate officers, including one woman and five non-Japanese, play an active role in Japan and overseas.

As of May 2017, the Board of Corporate Auditors is comprised of three corporate auditors, including one independent outside auditor. The Board of Corporate Auditors held 14 meetings in fiscal 2016. It performs objective and appropriate auditing and monitoring of the work of the Board of Directors, in cooperation with independent auditors and internal auditing (Group Internal Audit Office, which is positioned directly under the President). (See the list of directors, corporate auditors and corporate officers on page 41).

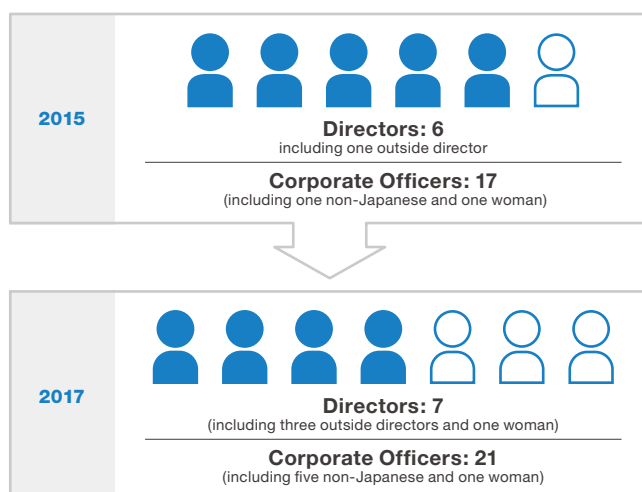
Evaluation of the Board of Directors’ Effectiveness

We distributed to all directors a questionnaire concerning the Board of Directors’ effectiveness and received response from all of them during November and December of 2016. The results showed that the directors valued that the effectiveness of the Board was confirmed with the current way. This was reported and discussed at the board meeting.

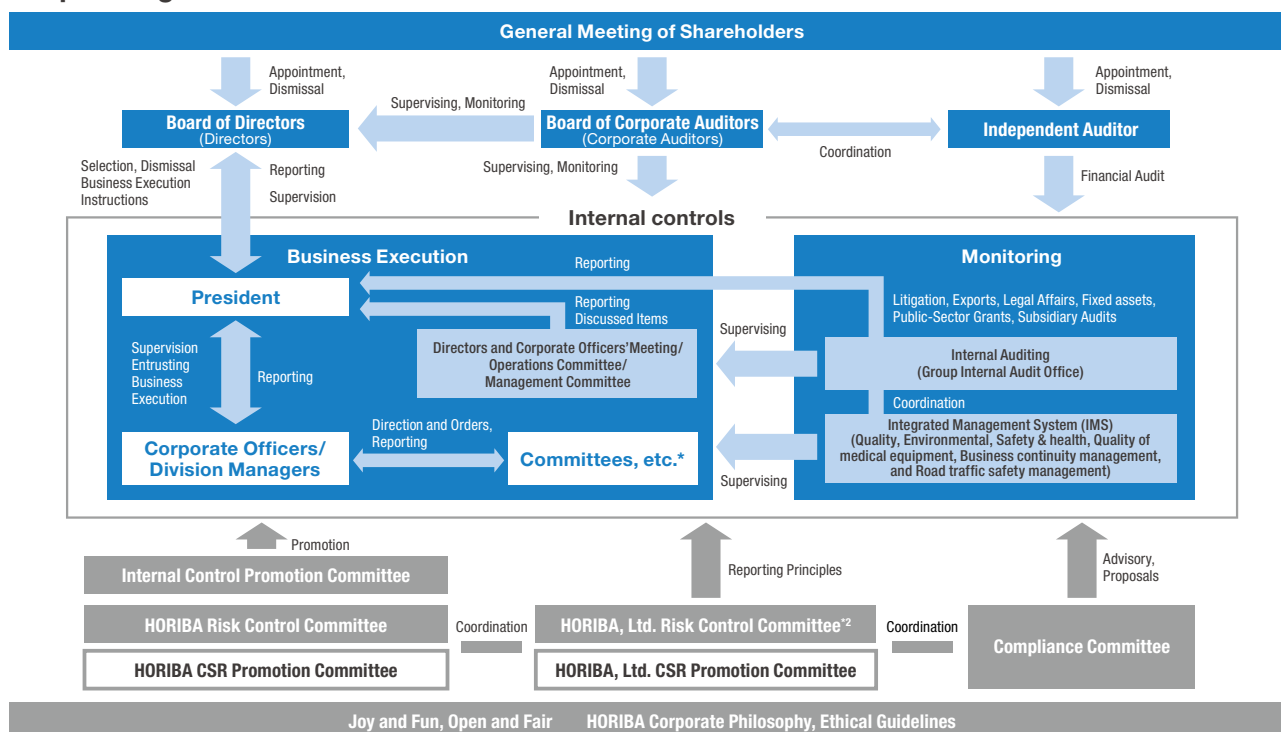
Relationship with owners (shareholders)

Open general meeting of shareholders

Since its initial stock listing in the Second Section of the Osaka Securities Exchange in 1971, HORIBA has encouraged all shareholders to attend the annual general shareholders meeting. This annual meeting is held on a Saturday to facilitate public attendance. An informal get-together event is held afterwards to enable shareholders to talk directly with management.



Corporate governance structure chart



*1 Committees, etc. refer to committees and conferences that are established and registered based on the "Regulations Concerning Conferences and Committees," such as the Group Promotion Committee for Management of Public Subsidies and the Safety and Health Committee.

*2 The HORIBA, Ltd. Risk Control Committee discusses and approves issues and measures concerning risk control.

Implementing shareholder return linked to earnings growth

HORIBA was the first listed Japanese company to start paying shareholder dividends based on a predetermined payout ratio in 1974. Since fiscal 2013, HORIBA has changed the base amount of profit returns to shareholders (the combined amount of dividend payments and share buybacks) from 30% of HORIBA, Ltd. nonconsolidated net income to 30% of HORIBA, Ltd. consolidated net income, so that shareholder returns are more directly linked to consolidated performance. In fiscal 2015, we bought back 218,400 shares worth ¥999 million and in fiscal 2016, we paid an annual dividend per share of ¥85.

Anti-takeover measures

HORIBA has not adopted anti-takeover measures. HORIBA reviewed the "Basic Policy on the Persons to Control Decision making over the Financial and Business Policies of HORIBA", which was announced on our website.

<http://www.horiba.com/jp/investor-relations/ir-news/article/40961/>
(Japanese only)

Constructive dialogue with owners (shareholders)

HORIBA abides by the "Basic Policy for Constructive Dialogue with Shareholders" as announced on our website (see below). We make efforts to explain our corporate policy,

financial condition, and corporate culture to our owners, and ask for their understanding and continued support.

<http://www.horiba.com/jp/investor-relations/ir-policy/>
(Japanese only)

Directors' compensation

Compensation for directors consists of base compensation (regular fixed-amount salary), earnings-based salary (bonus) linked to the earnings results of each fiscal year, and stock options (retirement allowance) linked to medium to long-term earnings performance. Compensation for outside directors, however, consists strictly of base compensation (fixed-amount salary), excluding compensation linked to earnings performance, given the nature of their assignment. The limits for compensation for directors and for outside directors are approved as a separate matter at the annual general shareholders meeting. The directors (not including outside directors) compensation of 2016 was ¥680 million in total.



Board of directors and corporate auditors (as of May 1, 2017)

Chairman, President and CEO	Atsushi Horiba	Director (Outside), Independent Director	Jiko Higashifushimi
1971	Joined Olson Horiba Inc. (U.S.)	1988	Appointed as Higashi-Kurume Branch Manager of Saitama Bank (now Resona Bank, Limited)
1972	Joined HORIBA, Ltd. then held positions such as General Manager of Overseas Technology Department and General Manager of Overseas Headquarters	1993	Entered Shorenin Religious Corporation then held a position as its Head Deacon
1982	Appointed as HORIBA's Director	2003	Appointed as the Representative Presiding Director and Head Priest of the Shorenin Religious Corporation up to the present
1992	Appointed as President and CEO	2016	Appointed as HORIBA's Director (Outside) up to the present
2005	Appointed as Chairman, President and CEO up to the present		
Executive Vice President General Manager of Corporate & Segment Strategy Division	Juichi Saito	Director (Outside), Independent Director	Dr. Sawako Takeuchi
1982	Joined HORIBA, Ltd. then held positions such as General Manager of Engine Measurement Planning & Development Department and President of HORIBA Instruments Inc. (U.S.)	1988	Appointed as Deputy Director, Master of International Business (MIB) Graduate Program, Ecole Nationale des Ponts et Chaussées, France
2005	Appointed as HORIBA's Director	1998	Appointed as Assistant Professor, School of Engineering, University of Tokyo Graduate School
2008	Appointed as Vice President of HORIBA STEC Co., Ltd. (Japan)	2004	Appointed as Urban Development Sector (China Manager), Asia-Pacific Division, World Bank
2013	Appointed as HORIBA's Executive Vice President	2005	Appointed as Special Assistant to the Ministry of Foreign Affairs of Japan, and as Visiting Professor, Graduate School of Engineering, Kyoto University
2016	Appointed as HORIBA's Executive Vice President and Representative Director up to the present	2011	Appointed as Director, Japan Cultural Institute in Paris (Japan Foundation)
		2016	Appointed as HORIBA's Director (Outside) up to the present
Senior Managing Director General Manager of Research & Development Division	Dr. Masayuki Adachi		Appointed as Senior Advisor of the Ministry of Education, Culture, Sports, Science and Technology
1985	Joined HORIBA, Ltd. then held positions such as General Manager of Emission Analysis, Research & Development Division and General Manager of Engine Measurement System Management Division	Corporate Auditor	Toshihiko Uno
2006	Appointed as HORIBA's Corporate Officer	1974	Joined HORIBA, Ltd. then held positions such as General Manager of Hardware Development and General Manager of Production Center
2007	Appointed as HORIBA's Corporate Officer	2002	Appointed as HORIBA's Corporate Officer
2014	Appointed as President of HORIBA International Corporation (U.S.)	2004	Appointed as HORIBA's Senior Corporate Officer
	Appointed as HORIBA's Director	2011	Resigned as HORIBA's Senior Corporate Officer
	Appointed as President of HORIBA Jobin Yvon S.A.S. (now HORIBA France S.A.S.)	2012	Appointed as HORIBA's Corporate Auditor up to the present
2016	Appointed as Chairman of supervisory board of HORIBA Jobin Yvon S.A.S. (now HORIBA France S.A.S.) up to the present		
	Appointed as HORIBA's Senior Managing Director up to the present	Corporate Auditor (Outside)	Kanji Ishizumi
		1971	Joined the Ministry of International Trade and Industry (now the Ministry of Economy, Trade and Industry)
Director, General Manager of Sales Division	Takashi Nagano	1975	Registered as Attorney at Law
1985	Joined HORIBA, Ltd. then held positions such as General Manager of Engine Measurement Planning & Development Department, General Manager of Engine Measurement System Management Division and President of HORIBA Europe GmbH (Germany)	1981	Appointed as representative partner of the Chiyoda Kokusai Law Offices up to the present
2005	Appointed as HORIBA's Corporate Officer	1995	Appointed as HORIBA's Corporate Auditor (Outside) up to the present
2013	Appointed as CEO of HORIBA Europe GmbH (Germany)		
2014	Appointed as President of HORIBA KOREA Ltd. (South Korea)	Corporate Auditor (Outside), Independent Auditor	Keisuke Ishida
2016	Appointed as HORIBA's Director up to the present	1978	Appointed as Representative Director and CEO, SHASHIN KAGAKU CO., LTD.
	Appointed as Chairman of HORIBA KOREA Ltd. (South Korea) up to the present	2000	Appointed as Representative Director, Chairman of the Board, CEO, SHASHIN KAGAKU CO., LTD. up to the present
		2001	Appointed as Chairman of the Board, SK-Electronics Co., Ltd.
Director (Outside), Independent Director	Masahiro Sugita	2005	Appointed as HORIBA's Corporate Auditor (Outside) up to the present
1967	Joined the Bank of Japan then held positions such as Matsumoto Branch Manager and Director-General of the International Department	2016	Appointed as Advisor, SK-Electronics Co., Ltd. up to the present
1998	Appointed as Director of Overseas Investment Research Institute, the Export-Import Bank of Japan		
1999	Appointed as Auditor of the Bank of Japan		
2003	Appointed as Outside Auditor (full-time) of Banyu Pharmaceutical Co., Ltd. (now MSD K.K.)		
2006	Appointed as HORIBA's Outside Director up to the present		
2013	Appointed as Outside Director of 77 Bank Ltd. up to the present		

Corporate officers (as of May 1, 2017)

Executive Corporate Officer

Dr. Jai Hakhu Chairman, President & CEO of HORIBA International Corporation (U.S.)
Chairman of HORIBA Instruments Inc. (U.S.)
President of HORIBA ABX S.A.S. (France)

Senior Corporate Officer

Sunao Kikkawa General Manager of Finance & Control Division
Hideyuki Koishi President of HORIBA STEC Co., Ltd. (Japan)
Yuichi Muroga President of HORIBA Techno Service Co., Ltd. (Japan)
Dr. George Gillespie CEO of HORIBA MIRA, Ltd. (U.K.)
Masao Okawa General Manager of General Administration Division and Tokyo Branch Manager

Corporate Officer

Hiroshi Kawamura President of HORIBA Europe Holding S.A.S. (France)
CEO of HORIBA Europe GmbH (Germany)
Atsushi Nakamine Division Manager of IT & BPR Center
James Thepot President of HORIBA France S.A.S.
Christian Dubuc Senior Director of HORIBA ABX S.A.S. (France)
Ken Mitera Executive Vice President of HORIBA Instruments Inc. (U.S.)

Junior Corporate Officer

Hiroo Chihara General Manager of Production Division
Narihiro Oku Deputy General Manager of Research & Development Division (Medical)
Tadao Nakamura President of HORIBA Instruments (Shanghai) Co., Ltd.
President of HORIBA (China) Trading Co., Ltd.
Tsukasa Satake Division Manager of Quality Management Center
Yasuo Yamashita Deputy General Manager of General Administration Division
Kenichi Obori Liaison for Academia and Government of Research & Development Division
Hideyuki Nishibun Deputy General Manager of Sales Division
Haruko Nozaki Principal of HORIBA COLLEGE, CSR
Toshiya Higashino President of HORIBA Advanced Techno Co., Ltd. (Japan)
Hitoshi Motokawa Deputy General Manager of Sales Division

Message from an Outside Director



Outside Director's Views on

HORIBA's management and board meetings

I was appointed as outside director at the General Meeting of Shareholders in March 2016. However, about a year before that, I had opportunities to better understand HORIBA's business and corporate culture. What impressed me most was how deeply rooted HORIBA's corporate philosophy, such as its motto "Joy and Fun", is. HORIBA's employees make innovative and creative efforts in tackling their assignments. They also talk freely even with their superiors, without the usual addressing of them by their titles. These are examples of HORIBA's corporate culture. The same is true with board meetings. Directors and Officers thoroughly analyze their areas of responsibility from various aspects, perform their role, and also speak out on important subjects beyond their area of responsibility and in view of the entire company's corporate value.

Representative Presiding Director and
Head Priest of the Shorenin Religious Corporation

Jiko Higashifushimi



HORIBA's Corporate Governance

My role

My main role as outside director is to oversee the execution of management from the aspect of corporate governance. Moreover, I intend to contribute to adding diversity in the perspective of management. I am currently running a religious corporation as its representative. Prior to that, I worked at a bank, accumulating experience in a business which required decision making in an ever-changing market, as well as in the retail business, serving individual customers and managing an organization as a branch manager. As a person of religion, I will keep asking how corporations and individuals should be connected to society. It is my hope to contribute to nurturing the uniqueness of HORIBA.

My expectation for HORIBA for its sustainable growth

Sustainable growth is the biggest theme for HORIBA and is frequently on the agenda of board meetings. As a provider of measuring solutions, HORIBA is expected to play a role in the areas directly linked to the global environment and in growth industries such as bio and medical, in addition to the present business areas. I am also counting on HORIBA to use the uniqueness of the Kyoto culture of not imitating others but growing through provision of services needed by customers and society. I firmly believe such growth can be realized as long as HORIBA values the attitude of creative and outside-the-box thinking.

Reasons of appointment of outside directors



Masahiro Sugita

HORIBA expects Sugita's vast experience in international finance and economy, and experience and insights accumulated as director and auditor of other companies will contribute to HORIBA's management.



Jiko Higashifushimi

HORIBA looks forward to Higashifushimi's advice from an ethical perspective, based on his far-reaching ideas as Representative Presiding Director and Head Priest of the Shorein Religious Corporation, as well as his work experience at a financial institution that can contribute to HORIBA's management.



Dr. Sawako Takeuchi

HORIBA appreciates Takeuchi's insights as a holder of a doctor's degree in engineering, and her international experience in France, where HORIBA has a major base, and other countries, and believes that her academic cooperation and experience will contribute to HORIBA's management.

Financial Data

	2006.12	2007.12	2008.12	2009.12	2010.12	2011.12	
For the Year:							
Net sales	¥116,099	¥144,283	¥134,248	¥104,538	¥118,556	¥123,456	
Operating costs and expenses	104,392	127,753	123,290	99,394	106,256	108,549	
Operating income	11,707	16,530	10,958	5,144	12,299	14,906	
Net income attributable to owners of parent	6,510	8,691	6,039	3,161	7,927	8,664	
Capital expenditures	5,059	9,336	6,645	4,534	4,033	4,670	
Depreciation and amortization	3,246	4,161	4,955	4,573	4,523	4,146	
Research and development expenses	6,136	9,474	10,662	9,831	9,480	10,060	
At Year-End:							
Total assets	¥129,236	¥154,367	¥133,279	¥129,580	¥137,290	¥144,649	
Cash and cash equivalents	15,673	20,565	22,660	27,590	34,459	35,767	
Trade notes and accounts receivable	Affiliated companies	-	-	63	6	1	126
	Other	42,485	45,873	37,330	34,505	36,425	39,249
Inventories	30,947	33,734	29,802	23,363	24,843	26,288	
Property, plant and equipment, net	21,700	24,071	23,115	23,602	22,516	22,924	
Trade notes and accounts payable	Affiliated companies	44	53	40	52	60	0
	Other	14,917	16,792	11,063	10,515	13,423	13,196
Liabilities with interest	16,224	25,177	20,984	18,348	17,128	18,358	
Shareholders' equity	72,371	80,377	76,829	79,906	84,019	90,232	
Share price at end of fiscal period (¥)	4,400	4,100	1,237	2,250	2,303	2,320	
Number of employees (consolidated)	4,697	4,976	5,146	5,133	5,202	5,448	
Per Share Information:							
Net income - basic	¥154.23	¥205.01	¥142.76	¥74.77	¥187.46	¥204.88	
Net income - diluted	153.70	204.39	142.71	74.68	187.11	204.41	
Net assets	1,710.75	1,892.64	1,816.96	1,889.58	1,986.77	2,133.44	
Cash dividends	26.00	39.00	44.00	13.00	17.00	40.00	
Financial Ratios:							
Operating income to net sales (%)	10.1	11.5	8.2	4.9	10.4	12.1	
Return on assets (%)	5.2	6.1	4.2	2.4	5.9	6.1	
Return on equity (%)	9.4	11.4	7.7	4.0	9.7	9.9	
Shareholders' equity ratio (%)	56.0	52.1	57.6	61.7	61.2	62.4	
Consolidated dividend payout ratio (%)	16.9	19.0	30.8	17.4	9.1	19.5	
Nonconsolidated dividend payout ratio (%)	30.0	30.1	30.0	30.0	30.3	30.5	

Notes: The stated amounts are rounded down to the nearest million yen from the year, ended December 31, 2009, but are rounded (up or down) to the nearest million yen prior to that year.

1. The U.S. dollar amounts are provided solely for convenience at the rate of ¥116.49 to US\$1.00, the rate prevailing on December 31, 2016 in Tokyo foreign exchange market.

2. For the year ended December 31, 2006, the accounting term for HORIBA, Ltd. and HORIBA Advanced Techno Co., Ltd. was only 9 months and 11 days and that for HORIBA STEC Co., Ltd. was only 9 months as a result of a change in the fiscal year-end to December 31.

3. The Company and its domestic consolidated subsidiaries had formerly recognized revenue mainly on a shipping basis. However, starting from the fiscal 2016, the Company and its domestic consolidated subsidiaries have changed to revenue recognition method on a completion date of installation or a delivery date basis under the terms and conditions of contracts. Accordingly, amounts for the fiscal 2015 have been stated based on the previous and new accounting standards on these pages.

2012.12	2013.12	2014.12	2015.12	2015.12 (Restated)	2016.12	2016.12
Millions of yen						Thousands of U.S. dollars
¥117,609	¥138,136	¥153,065	¥170,898	¥171,916	¥170,093	\$1,460,151
105,857	124,402	135,851	151,526	151,774	151,593	1,301,339
11,751	13,733	17,214	19,372	20,142	18,499	158,803
7,396	8,999	10,589	12,882	13,282	12,962	111,271
7,882	7,680	11,001	16,309	16,309	13,796	118,430
3,743	4,279	4,905	6,110	6,110	6,816	58,511
10,092	10,774	11,986	12,341	12,341	12,933	111,022
Millions of yen						Thousands of U.S. dollars
¥153,836	¥189,269	¥207,335	¥231,032	¥232,121	¥239,657	\$2,057,318
38,858	49,246	51,109	47,859	47,859	51,940	445,875
4	25	149	2	2	7	60
37,516	47,386	52,097	54,769	50,126	53,717	461,129
28,101	33,085	34,838	35,717	40,190	40,289	345,858
28,179	33,326	39,441	56,978	56,978	61,977	532,037
-	-	20	-	-	77	661
11,829	16,409	15,385	17,638	17,675	19,935	171,130
18,083	24,577	28,412	45,227	45,227	47,153	404,781
99,248	114,209	123,924	129,581	126,774	132,654	1,138,758
2,489	3,590	4,015	4,695	4,695	5,410	U.S. dollars 46.44
5,530	5,787	5,965	6,831	6,831	7,149	
Yen						U.S. dollars
¥174.87	¥212.76	¥250.28	¥305.73	¥315.23	¥307.74	\$2.64
174.37	212.01	249.28	304.36	313.81	306.38	2.63
2,346.45	2,699.88	2,928.82	3,078.40	3,011.71	3,148.70	27.02
50.00	60.00	67.00	70.00	70.00	85.00	0.72
10.0	9.9	11.2	11.3	11.7	10.9	
5.0	5.2	5.3	5.9	6.0	5.5	
7.8	8.4	8.9	10.2	10.7	10.0	
64.5	60.3	59.8	56.1	54.6	55.4	
28.6	28.2	26.8	22.9	-	27.6	
37.5	48.9	38.5	35.1	-	46.7	

Computations:

Shareholders' equity = net assets - subscription rights to shares - non-controlling interests

Net income per share (¥) = net income attributable to owners of parent / (average number of shares issued and outstanding in the fiscal period, corrected for treasury stock)

Net assets per share (¥) = shareholders' equity / (number of shares issued and outstanding, corrected for treasury stock)

Operating income to net sales (%) = 100 x operating income / net sales

Return on assets (ROA, %) = 100 x net income attributable to owners of parent / average total assets in prior fiscal period

Return on equity (ROE, %) = 100 x net income attributable to owners of parent / average shareholders' equity in prior fiscal period

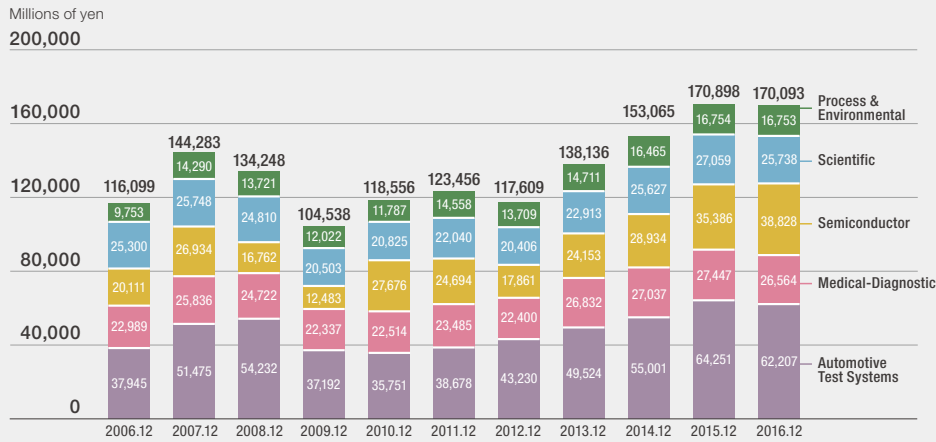
Shareholders' equity ratio (%) = 100 x shareholders' equity / total assets

Consolidated dividend payout ratio (%) = 100 x dividends paid / net income attributable to owners of parent

Nonconsolidated dividend payout ratio (%) = 100 x dividends paid / net income (nonconsolidated)

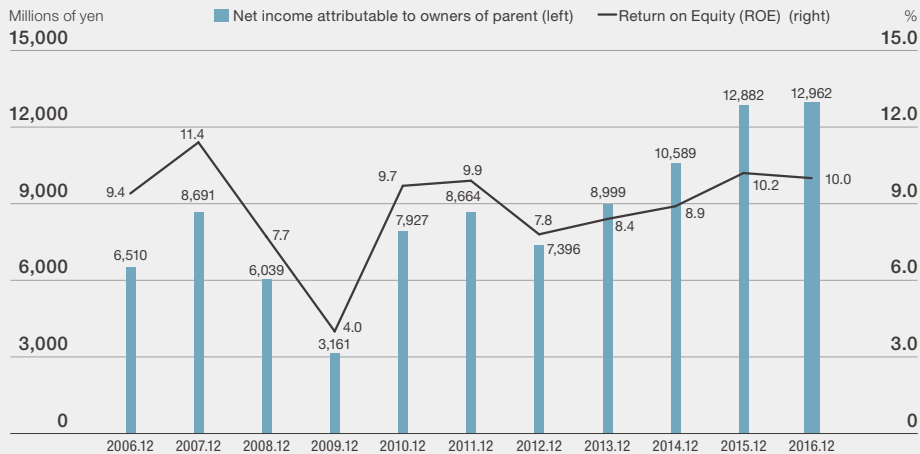
Eleven-Year Summary

Net sales by segment



In fiscal 2016, the Semiconductor Instruments & Systems segment renewed its record high for sales, thanks to an increase in investment by semiconductor manufacturers, but the overall net sales decreased year-on-year due to the yen's appreciation and other factors. Net sales in fiscal 2016 were the second highest for HORIBA, after those of fiscal 2015.

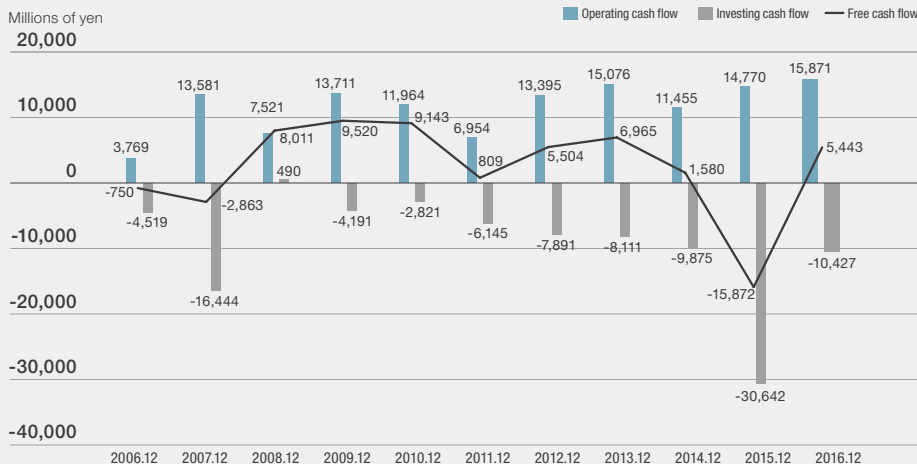
Net income attributable to owners of parent and ROE



HORIBA posted a year-on-year decrease in operating income but a one-off drop in the statutory effective tax rate contributed to a record high net income attributable to owners of parent. * ROE of 10.0% means that HORIBA achieved MLMAP2020 target of 10% or more in ROE for the second consecutive year.

* Due to change in the revenue recognition standard in fiscal 2016, net income in fiscal 2015, when the new standard was retrospectively applied, would have been the record high.

Cash flow

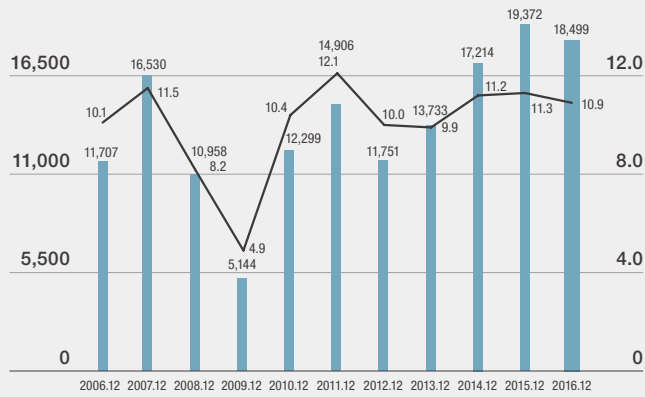


In 2015 HORIBA recorded significantly negative free cash flow, due to many investments, including those for HORIBA BIWAKO E-HARBOR and the acquisition of HORIBA MIRA, Ltd.

In 2016, HORIBA recorded positive free cash flow of ¥5.4 billion due to an increase in operating cash flow that stemmed from an increase in earnings of the Semiconductor Instruments & Systems segment, which more than offset continued aggressive investment for HORIBA MIRA, Ltd. and other projects.

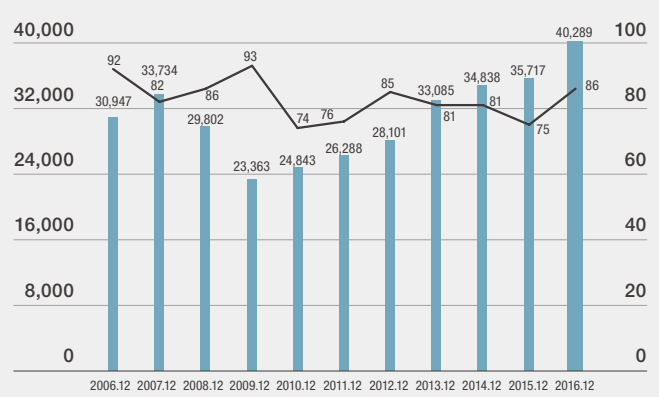
Operating Income and Operating Income to Net Sales

Millions of yen **22,000** ■ Operating Income — Ratio of Operating Income to Net Sales % **16.0**



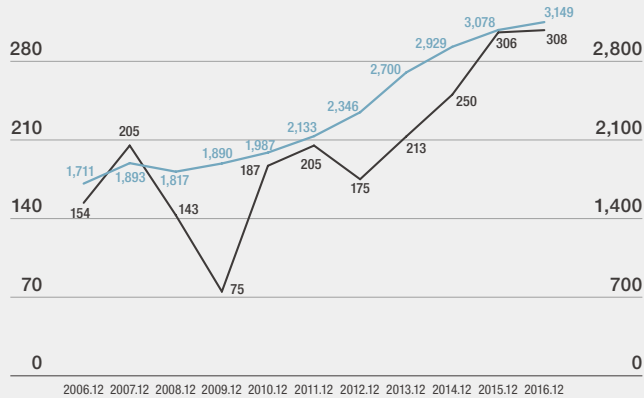
Inventories and Inventory Turnover (Days)

Millions of yen **48,000** ■ Inventories (left) — Inventory Turnover (right) Days **120**



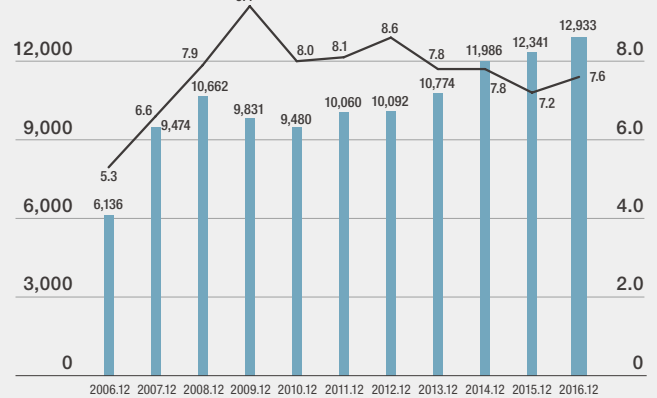
Net Income per Share and Net Assets per Share

Yen **350** — Net Income per Share (left) — Net Assets per Share (right) Yen **3,500**



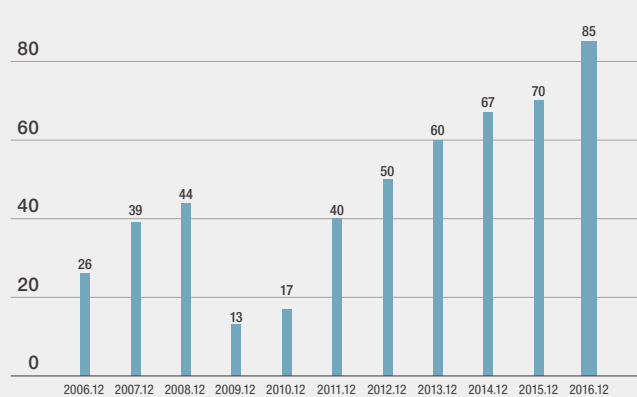
R&D Expenditures and R&D Expenditures to Net Sales

Millions of yen **15,000** ■ R&D Expenditures (left) — R&D Expenditures to Net Sales (right) % **10.0**



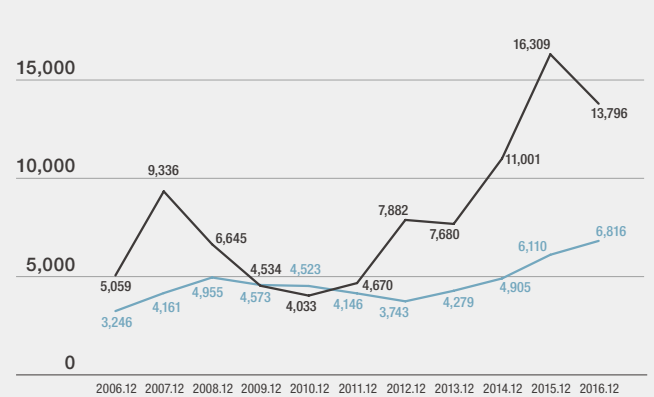
Cash Dividends per Share

Yen **100**



Capital Expenditures and Depreciation and Amortization

Millions of yen **20,000** — Capital Expenditures — Depreciation and Amortization



Consolidated Financial Review

HORIBA, Ltd. and Consolidated Subsidiaries | Consolidated Financial Review

With regard to the global economy in the fiscal year ended December 31, 2016, the United States continued its economic recovery, driven by an increase in consumption supported by an improvement in the employment environment and other factors. In Europe, a modest economic recovery was sustained. In emerging countries, the overall economy recovered moderately, partly due to economic stimulus measures, but some countries experienced an economic slowdown.

In Japan, on top of a mild increase in capital spending, consumer spending was modest, supported by an improvement in the employment and wage environment. These factors allowed the moderate economic recovery trend to continue.

The annual average exchange rates for 2016 were 108.78 yen against the U.S. dollar and 120.26 yen against the euro, representing year-on-year appreciation of 11.3% against the U.S. dollar and appreciation of 11.7% against the euro.

In the analytical and measurement equipment industry, demand for semiconductors and electronic devices increased due to demand for servers used in data centers and the increased functionality of smartphones. Consequently, semiconductor-related investment remained at a high level throughout the year, and demand for semiconductor production equipment expanded. In the automotive industry, domestic and overseas automakers were temporarily cautious regarding capital and R&D investment. On the other hand, following the introduction of new emission gas regulations in Europe, as Japan has decided to introduce new regulations in 2018, demand for emission measurement systems has increased. In the scientific analysis equipment industry, demand for leading-edge scientific analysis equipment was at a high level in China but sluggish in other areas.

Under such business environment, HORIBA, Ltd. (“the Company”) and its consolidated subsidiaries (together “the HORIBA Group” or “HORIBA” as a consolidated group),

implemented several measures to strengthen each segment in current fiscal year.

In the Automotive Test Systems segment, we opened automotive development and demonstration laboratory “HORIBA India Technical Center” in India in order to expand the automotive measurement instrument business in that market. We also invested aggressively in the ECT (Engineering Consultancy & Testing) business, which we acquired from MIRA Ltd.(U.K.) in 2015, with the aim of expanding into business fields that include the development of next-generation mobility, including automatic driving technology.

In the Process & Environmental Instruments & Systems segment, HORIBA, jointly with local universities and other institutions, proposed analytical and measurement solutions that contribute to the tightening of local environmental regulations and the improvement of the local environment, in order to expand business in Asia. Furthermore, in the process analytical product line, which HORIBA acquired from the U.S. corporation Cameron in 2013, HORIBA was active in the oil refining market.

In the Medical-Diagnostic Instruments & Systems segment, we accelerated the development of new products which are developed in France in the hematology sector. At the same time, our product line-up has been expanded for prospective launch through sales alliances of biochemical testing equipment.

In the Semiconductor Instruments & Systems segment, the Aso Factory of HORIBA STEC began construction to expand capacity, in order to respond to an increase in demand for semiconductor production equipment.

In the Scientific Instruments & Systems segment, we strengthened the sales organization for products such as Raman spectrometers used in R&D in China. The segment also sought to mutually utilize technology resources and customer networks with other business segments and focused on growing its customer base, with the aim of developing business in new markets.

Furthermore, in Japan, HORIBA BIWAKO E-HARBOR, the

new Biwako factory in Japan, began full-fledged operation. This newly-constructed factory aims to cater for the reinforcement of development and production capabilities in the gas measurement field for the Automotive Test Systems segment and the Process & Environmental Instruments & Systems segment. Moreover, we have been strengthening the water measurement-related business, which has been promoted as one of the priority initiatives in the Company's Mid-Long Term Management Plan "MLMAP2020". Specifically, development and production resources which have been dispersed in the Company and HORIBA Advanced Techno, were decided to be integrated in HORIBA Advanced Techno, in order to grow the business and strengthen its brand power globally. In addition, with the aim at improving asset efficiency and accelerating business growth at the same time, HORIBA's management indices to measure asset efficiency were introduced and have been thoroughly implemented by all Group companies.

Despite those measures and sales efforts, due to some impacts from the yen's appreciation against foreign currency, both of consolidated net sales and profits decreased from a year ago.

Net Sales

In the fiscal year ended December 31, 2016, consolidated net sales decreased by ¥1,823 million, or 1.1%, year-on-year to ¥170,093 million. The average foreign exchange rate applied in book closings was ¥108.78 to the U.S. dollar, compared with ¥121.10 for the previous year, and ¥120.26 to the euro, compared with ¥134.31 for the previous year. Using the exchange rates for the previous year, consolidated sales for fiscal 2016 would have been ¥184,343 million. Thus, ¥14,250 million in decreased sales can be attributed to the appreciation of the yen.

Cost of Sales, SG&A Expenses, and Operating Income

Consolidated cost of sales increased by ¥497 million to ¥100,339 million. The cost of sales ratio increased by 0.9 percentage points from a year ago to 59.0%, due mainly to

sales decrease of the MCT business, despite some impacts from the yen's appreciation against foreign currency and sales to semiconductor production equipment manufacturers surged.

Excluding ¥7,574 million from fluctuations in foreign exchange rates, however, the actual increase in cost of sales was ¥8,071 million rather than the nominal increase of ¥497 million.

Selling, general and administrative (SG&A) expenses decreased by ¥677 million from the previous year to ¥51,254 million. The ratio to net sales improved by 0.1 percentage points to 30.1%, due mainly to some impacts from the yen's appreciation against foreign currency, despite an increase in R&D expenses. Excluding ¥3,484 million from fluctuations in foreign exchange rates, however, the actual increase in SG&A expenses was ¥2,806 million rather than the nominal decrease of ¥677 million.

As a result, consolidated operating income decreased by ¥1,642 million, or 8.2%, year-on-year to ¥18,499 million. The operating income ratio was 10.9%, down 0.8 percentage points from 11.7% for the previous year.

Business Segments

The operating results of each business segment are summarized as follows.

(Automotive Test Systems)

On top of increased sales of emission measurement systems supported by tighter automotive emission gas regulations across the world, sales of HORIBA MIRA, Ltd. (U.K.), which was acquired in July 2015, contributed to sales gain on a full-year basis. On the other hand, due to the impacts of the appreciation of the yen, which decreased overseas sales in yen terms, and the MCT (Mechatronics) sales decreased, as customers temporarily became cautious regarding investments. As a result, segment sales decreased by 4.9% year-on-year to ¥62,207 million. Operating income decreased by 32.1% to ¥3,529 million, which was attributable to increased costs that are related to the full-scale operation of

HORIBA BIWAKO E-HARBOR, the new factory in Japan from May 2016, and sales decrease of the MCT business.

(Process & Environmental Instruments & Systems)

While sales of stack gas analyzers for power plants and factories in Asia and Europe were sluggish, sales were modest in Japan. Sales were also firm in the Americas, as a decline in oil prices led to an increase in demand in the process measurement equipment business. As a result, segment sales increased by 0.3% year-on-year to ¥16,753 million. Operating income, however, decreased by 12.3% to ¥1,540 million due to lower profitability of overseas projects.

(Medical-Diagnostic Instruments & Systems)

Sales of the hematology and C-Reactive Protein (CRP) analyzers, which were launched in March 2015 in Japan, were at a high level, but sales in Europe in yen terms decreased, stemming from the yen's appreciation against the euro. Consequently, segment sales decreased by 4.0% year-on-year to ¥26,564 million. Operating income increased by 9.7% to ¥2,806 million thanks to high level sales in Japan and other factors.

(Semiconductor Instruments & Systems)

Despite some impacts from the yen's appreciation against foreign currency, due to high level of capital investment by semiconductor manufacturers, sales to semiconductor production equipment manufacturers surged. As a result, segment sales increased by 9.8% year-on-year to ¥38,828 million and operating income was up 2.6% to ¥9,678 million.

(Scientific Instruments & Systems)

Sales of instruments and systems to universities and other customers for R&D were solid in Japan and China but sluggish in Europe and the Americas. Sales in Europe in yen terms were also depressed by the yen's appreciation against the euro. Consequently, segment sales decreased by 3.8% year-on-year to ¥25,738 million and operating income decreased by 21.1% to ¥944 million.

Net Income Attributable to Owners of Parent

Other income (expenses) resulted in increasing its expenses

by ¥918 million from fiscal 2015 mainly due to loss on disaster related to the damage caused by the Kumamoto Earthquakes and the flood in France. In fiscal 2016, other income (expenses) resulted in loss of ¥1,256 million. This result was mainly because HORIBA posted loss on disaster, despite posting of gain on sales of subsidiaries and affiliates' stocks. Because of the decrease in operating income, income before income taxes decreased by ¥2,561 million, or 12.9%, to ¥17,243 million, and net Income attributable to owners of parent decreased by ¥320 million, or 2.4%, to ¥12,962 million.

Financial Position

As of December 31, 2016, total consolidated assets were ¥239,657 million, up ¥7,535 million from December 31, 2015. The main factors contributing to the increase were an increase in property, plant and equipment due to new investments, and an increase in trade notes and accounts receivable driven by higher sales in the Semiconductor Instruments & Systems segment in the 4th quarter, despite the amount of assets was compressed in yen terms due to the appreciation of the yen.

Total consolidated liabilities increased by ¥1,588 million from the previous year to ¥106,466 million. While the amount of liabilities was compressed in yen terms due to the appreciation of the yen, as in the case of total assets, an increase in borrowings due to new overseas investments and an increase in trade notes and accounts payable driven by higher sales in the Semiconductor Instruments & Systems segment in the 4th quarter were the main factors behind the increase in total liabilities.

Total consolidated net assets amounted to ¥133,191 million, up ¥5,947 million from a year ago, due mainly to an increase of ¥9,871 million in retained earnings, despite a decrease of ¥4,150 million in foreign currency translation adjustments due mainly to the appreciation of the yen against foreign currency.

Cash Flows

(Cash Flow from Operating Activities)

Net cash provided by operating activities amounted to ¥15,871 million, compared to ¥14,770 million provided in the previous year. Factors contributing to this amount included posting of income before income taxes and depreciation and amortization expense.

(Cash Flow from Investing Activities)

Net cash used in investing activities amounted to ¥10,427 million, compared to ¥30,642 million used in the previous year, due mainly to payments for purchases of property, plant and equipment, such as MIRA Technology Park(U.K.), HORIBA India Technical Center and Kyoto factory of the Company,.

(Cash Flow from Financing Activities)

Net cash used in financing activities amounted to ¥451 million, compared to ¥12,843 million provided in the previous year. This was mainly attributable to payments for dividends and a decrease of long-term debt, despite an increase of long-term debt.

As a result, there was a net increase of ¥4,081 million in cash and cash equivalents to ¥51,940 million as of December 31, 2016.

Dividend Policy

The Company believes that the distribution of profits to shareholders is one of its priority issues while giving due consideration to ensuring a stable management base and internal reserves for business expansion. The basic policy regarding profit returns to shareholders is to maintain a total shareholder return ratio of around 30% of consolidated net income attributable to owners of parent, combined with the amount of dividend payments and the amount of share buyback. In addition, the Company will appropriate internal reserves as basic funds for working capital for business expansion, capital expenditure, investment in research and development, and the reinforcement of the financial strength, making returns to shareholders through the development of businesses for the future.

Major Risks**1. Business Risks****(1) Risks Associated with International Business Activities**

HORIBA conducts business activities in many countries around the world, including the U.S. and countries in Europe and Asia. Major risks associated with the entry into these overseas markets and conducting business there include sudden shifts in economic conditions or in product supply and demand, sudden changes in retail prices due to competition, changes in laws, regulations and tax systems and social disruptions such as terrorism and war. These risks could affect HORIBA's financial position and business results.

To protect against fluctuations in foreign currency exchange rates, HORIBA promotes local production and supply. HORIBA also employs foreign exchange forward contracts within the limits of its transaction amounts of foreign currency denominated receivables and payables to import and export transactions to minimize foreign exchange risks. However, fluctuations in foreign exchange rates could still have an impact when financial statements prepared in local currencies are translated into Japanese yen for the consolidated financial statements, and a major change in foreign exchange rates beyond our estimates could affect our financial condition and business performance.

(2) Changes in Performance or Financial Position Associated with Acquisitions and Alliances

HORIBA has actively promoted corporate acquisitions and alliances to enhance the efficiency and effectiveness of its business operations. HORIBA conducts complete and diligent investigations when making acquisitions and forming alliances in order to avoid any negative impact on earnings and cash flows. However, it is possible that HORIBA's financial condition and business performance could be affected if an acquisition or alliance did not proceed in accordance with initial plans.

(3) Repair of Facilities Following Natural Disasters and Associated Delays in Delivery, etc.

The HORIBA Group's manufacturing bases are located in diverse areas, including Japan (Kyoto, Shiga and Kumamoto Prefectures), Europe (France, Germany and the Czech Republic), Americas (the U.S. and Brazil) and Asia (China, South Korea and India). However, it is possible that HORIBA's financial condition and business performance could be affected in the case of a major earthquake or other natural disasters, as HORIBA's manufacturing facilities could be damaged and require expensive repairs or an interruption to HORIBA's supply chain could affect

HORIBA's production and/or distribution.

(4) Risks Associated with Contracts and Transactions

HORIBA enters into various contracts with customers, suppliers and other stakeholders and conducts its business activities based on these contracts. Nevertheless, there is a possibility of claims for damages arising from different views of performance or different understandings of business terms between parties. It is possible that such circumstances could result in HORIBA facing a claim for compensation.

(5) Other Business Risks

In addition to the above-mentioned risks, other risks include a risk of breakdown or malfunction of information systems, threats related to information security and risks associated with laws and regulations imposed on businesses. HORIBA is taking preventive measures against these risks but they could affect HORIBA's financial position and business results.

2. Risks Associated with Development and Production

(1) Compensation for Product Liability

HORIBA conducts optimum quality control for its products and services and strives to maintain the highest standards of reliability. Nevertheless, there is always the possibility of recalls or litigation arising from unforeseen defects. HORIBA carries insurance for product liability, but there can be no guarantee that this insurance would cover the full amount of any unforeseen damages. Such circumstances could have an affect on HORIBA's financial condition and business performance.

(2) Delays in Development of New Products

The measuring instruments business in which HORIBA operates is extremely specialized and requires high levels of technical capability. HORIBA, therefore, invests large sums in product development. However, it is possible that expected returns of this investment will not be realized due to unforeseen circumstances.

(3) Risks Concerning Intellectual Property Rights

HORIBA possesses a wide range of intellectual property rights related to the products it manufactures, including patents, trademarks and expertise, which give it superiority in terms of competitiveness. HORIBA exercises all possible caution regarding the management and protection of these intellectual property rights. However, in the case of infringement by a third party, it is possible that HORIBA will be unable to attain its

expected earnings. There is also a possibility of disputes over intellectual property rights with other companies. Such disputes could significantly affect HORIBA's financial condition and business performance.

(4) Risks Associated with Fluctuations in Raw Material Prices

HORIBA takes into account the risk of fluctuations in purchasing prices and makes arrangements such as advance purchasing to manage this risk when it is deemed necessary. However, it may require some time for an increase in purchasing prices to be passed on and reflected in selling prices. Such circumstances could significantly affect HORIBA's financial condition and business performance.

3. Financial Risks

(1) Impairment Loss on Securities

Based on an overall consideration of business strategy, enhancement of relations with business partners, and maintenance of good relationship with communities, HORIBA holds securities in order to raise its medium- to long-term corporate value. Each year, HORIBA's Board of Directors reviews and evaluates its investments by comprehensively taking into account the investment amount, potential gains associated with the holding of securities, and other factors. If the market value of securities held by HORIBA declines, there is a possibility that an impairment loss on the relevant securities will be recorded and that HORIBA's financial condition and business performance will be negatively affected.

(2) Impairment Loss on Fixed Assets

If the market value of land, buildings, or other assets held by HORIBA declines significantly or segment losses were generated for two consecutive fiscal years in the future, there is a possibility that an impairment loss will be recorded and that HORIBA's financial condition and business performance will be negatively affected.

(3) Reversal of Deferred Tax Assets Resulting From Changes in Systems or Accounting Policies

It is possible that changes in systems or accounting policies (e.g., reductions in tax rates) could require HORIBA to reverse its deferred tax assets at the end of the fiscal year.

(4) Dissolution of Employees' Pension Fund

The Kyoto Machinery and Metal Employees' Pension Fund (general type), of which the Company and a domestic

consolidated subsidiary are members, resolved to adopt Japanese government policy to carry out a special dissolution at the representative assembly. Accordingly, HORIBA posted an estimated loss in association with the dissolution as “Provision for loss on dissolution of the employees’ pension fund”. However, it expects to be approved for dissolution in 2017, September. It is possible that an estimated loss will change, due to changes in the operating environment for the Fund, and in case of such as voluntary withdrawals, closures and bankruptcies of the Fund members other than HORIBA.

4. Risks by Business Segment

HORIBA operates in five business segments: Automotive Test Systems, Process & Environmental Instruments & Systems, Medical-Diagnostic Instruments & Systems, Semiconductor Instruments & Systems and Scientific Instruments & Systems. HORIBA can achieve balanced growth by overcoming each segment’s weakness with complementary strengths among all the business segments. Nevertheless, each business segment carries risks associated with fluctuations in its respective operations.

(1) Automotive Test Systems

Emission measurement systems, the main products of the Automotive Test Systems segment, are used by automobile manufacturers, automotive component manufacturers and government agencies. The setting of legal limits on exhaust emissions affects the demand for these measurement systems. It is possible, therefore, that the financial condition and business performance of HORIBA will be significantly affected by future regulations. Furthermore, capital expenditures related to shifts in the automation of automotive test systems could have a significant impact on HORIBA’s financial condition and business performance. In addition, HORIBA holds a large amount of fixed assets in the ECT business. If the capacity utilization rate of the fixed assets declines, due to automobile manufacturers’ R&D trends and other factors, this could have a significant impact on HORIBA’s financial condition and business performance.

(2) Process & Environmental Instruments & Systems

Demand for environmental-related products such as analyzers for air pollution and water quality may be affected by changes in environmental regulations. Changes in the demand for these products could have a significant impact on HORIBA Group’s financial condition and business performance.

(3) Medical-Diagnostic Instruments & Systems

The main products in the Medical-Diagnostic Instruments & Systems segment are hematology analyzers, which are small- and medium-sized equipment used by small- and medium-sized hospitals and medical practitioners, the target market. Price competition for these products that is beyond our expectations could have a significant impact on HORIBA’s financial condition and business performance.

(4) Semiconductor Instruments & Systems

The main products in this segment are fluid control products for semiconductor manufacturing processes and products that support R&D and quality testing by semiconductor manufacturers. To minimize fluctuations in the semiconductor market, HORIBA makes efforts to shorten the lead time for these products and quickly respond to customers’ needs. Nevertheless, sharp fluctuations in the demand for semiconductors and the investment of semiconductor manufacturers could affect the financial condition and business performance of HORIBA.

(5) Scientific Instruments & Systems

Scientific analysis instruments are the main products of the Scientific Instruments & Systems segment and are used for R&D and product quality testing. There is a risk that the demand for these products could be affected by the R&D budgets of government agencies and the R&D investment and production of private enterprises and have a significant impact on HORIBA Group’s financial condition and business performance.

Consolidated Balance Sheets

HORIBA, Ltd. and Consolidated Subsidiaries
For the years ended December 31, 2015 and December 31, 2016

Thousands of
U.S. dollars
(Note 1)

ASSETS	Millions of yen		Thousands of U.S. dollars (Note 1)
	12/2015	12/2016	
Current assets:			
Cash and cash equivalents.....	¥47,859	¥51,940	\$445,875
Trade notes and accounts receivable (Note 4,7)			
Affiliated companies.....	2	7	60
Other.....	50,126	53,717	461,129
Allowance for doubtful receivables.....	(789)	(842)	(7,228)
Marketable securities (Note 4,5).....	1,411	200	1,716
Inventories (Note 6).....	40,190	40,289	345,858
Deferred tax assets (Note 15).....	5,140	4,160	35,711
Other current assets (Note 8).....	8,163	7,339	63,001
Total current assets.....	152,104	156,812	1,346,141
Property, plant and equipment (Note 18):			
Land (Note 8).....	10,647	13,065	112,155
Buildings and structures.....	46,321	48,850	419,349
Machinery, equipment and vehicles (Note 8).....	17,939	20,307	174,323
Construction in progress.....	4,739	3,453	29,642
Other property, plant and equipment.....	16,828	15,768	135,359
Total.....	96,476	101,445	870,847
Accumulated depreciation.....	(39,497)	(39,468)	(338,810)
Net property, plant and equipment.....	56,978	61,977	532,037
Investments and other noncurrent assets:			
Investment securities (Note 4,5).....	8,265	8,472	72,727
Investments in nonconsolidated subsidiaries and affiliates.....	69	46	394
Deferred tax assets (Note 15).....	1,671	1,726	14,816
Allowance for doubtful accounts.....	(50)	(66)	(566)
Other investments and other assets.....	2,783	2,764	23,727
Total investments and other noncurrent assets.....	12,739	12,943	111,108
Intangibles:			
Goodwill (Note 18).....	576	387	3,322
Software.....	4,851	4,082	35,041
Other intangibles.....	4,870	3,453	29,642
Total intangibles.....	10,298	7,923	68,014
Total assets.....	¥232,121	¥239,657	\$2,057,318
LIABILITIES AND NET ASSETS			
Current liabilities:			
Short-term loans (Note 4,8).....	¥12,225	¥11,449	\$98,283
Current portion of long-term debt (Note 4,8).....	848	1,158	9,940
Trade notes and accounts payable (Note 4)			
Affiliated companies.....	-	77	661
Other.....	17,675	19,935	171,130
Accounts payable - other (Note 4).....	14,759	14,041	120,533
Accrued income taxes (Note 4).....	3,796	1,838	15,778
Advances received.....	10,831	10,162	87,234
Deferred tax liabilities (Note 15).....	91	76	652
Accrued bonuses to employees.....	948	914	7,846
Accrued bonuses to directors and corporate auditors.....	63	58	497
Reserve for product warranty.....	1,651	1,672	14,353
Provision for loss on disaster.....	-	227	1,948
Other current liabilities.....	3,433	4,462	38,303
Total current liabilities.....	66,325	66,076	567,224
Long-term liabilities:			
Long-term debt (Note 4,8).....	32,153	34,545	296,549
Deferred tax liabilities (Note 15).....	1,181	931	7,992
Net defined benefit liability (Note 9).....	1,947	2,191	18,808
Provision for loss on dissolution of the employees' pension fund (Note 9).....	1,267	1,247	10,704
Other noncurrent liabilities.....	2,002	1,474	12,653
Total long-term liabilities.....	38,552	40,389	346,716
Total liabilities.....	104,878	106,466	913,949
Contingent liabilities (Note 13)			
Net assets (Note 10):			
Shareholders' equity:			
Common stock.....	12,011	12,011	103,107
Authorized - 100,000,000 shares			
Issued and outstanding - 42,093,731 shares (excluding treasury stock) at 12/2015			
Issued and outstanding - 42,129,766 shares (excluding treasury stock) at 12/2016			
Capital surplus.....	18,717	18,717	160,674
Retained earnings.....	93,232	103,104	885,088
Treasury stock - 439,021 shares at 12/2015 and 402,986 shares at 12/2016.....	(1,730)	(1,588)	(13,632)
Total shareholders' equity.....	122,230	132,244	1,135,239
Accumulated other comprehensive income:			
Unrealized gains (losses) on available-for-sale securities.....	2,624	2,928	25,135
Deferred gains or losses on hedges (Note 14).....	(0)	-	-
Foreign currency translation adjustments.....	1,852	(2,297)	(19,718)
Remeasurements of defined benefit plans (Note 9).....	66	(221)	(1,897)
Total accumulated other comprehensive income.....	4,543	409	3,511
Subscription rights to shares (Note 11).....	469	466	4,000
Non-controlling interests.....	0	71	609
Total net assets.....	127,243	133,191	1,143,368
Total liabilities and net assets.....	¥232,121	¥239,657	\$2,057,318

See the notes to the consolidated financial statements.

Consolidated Statements of Changes in Net Assets

HORIBA, Ltd. and Consolidated Subsidiaries
For the years ended December 31, 2015 and December 31, 2016

Thousands of
U.S. dollars
(Note 1)

	Millions of yen		Thousands of U.S. dollars (Note 1)
	12/2015	12/2016	
Shareholders' equity			
Common stock			
Balance at beginning of current fiscal year.....	¥12,011	¥12,011	\$103,107
Balance at end of current fiscal year.....	¥12,011	¥12,011	\$103,107
Capital surplus			
Balance at beginning of current fiscal year.....	¥18,717	¥18,717	\$160,674
Balance at end of current fiscal year.....	¥18,717	¥18,717	\$160,674
Retained earnings			
Balance at beginning of current fiscal year.....	¥86,218	¥93,232	\$800,343
Cumulative effects of changes in accounting policies.....	(3,313)	-	-
Beginning balance after reflection of changes in accounting policies.....	¥82,905	¥93,232	\$800,343
Changes in items during the period:			
Cash dividends.....	(2,955)	(3,031)	(26,019)
Net income attributable to owners of parent.....	13,282	12,962	111,271
Disposal of treasury stock.....	-	(58)	(487)
Total.....	10,326	9,871	84,736
Balance at end of current fiscal year.....	¥93,232	¥103,104	\$885,088
Treasury stock			
Balance at beginning of current fiscal year.....	(¥730)	(¥1,730)	(\$14,851)
Changes in items during the period:			
Purchase of treasury stock.....	(999)	(0)	(0)
Disposal of treasury stock.....	-	142	1,218
Total.....	(999)	141	1,210
Balance at end of current fiscal year.....	(¥1,730)	(¥1,588)	(\$13,632)
Shareholders' equity, total			
Balance at beginning of current fiscal year.....	¥116,216	¥122,230	\$1,049,274
Cumulative effects of changes in accounting policies.....	(3,313)	-	-
Beginning balance after reflection of changes in accounting policies.....	¥112,903	¥122,230	\$1,049,274
Changes in items during the period:			
Cash dividends.....	(2,955)	(3,031)	(26,019)
Net income attributable to owners of parent.....	13,282	12,962	111,271
Purchase of treasury stock.....	(999)	(0)	(0)
Disposal of treasury stock.....	-	83	712
Total.....	9,326	10,013	85,955
Balance at end of current fiscal year.....	¥122,230	¥132,244	\$1,135,239
Accumulated other comprehensive income			
Unrealized gains (losses) on available-for-sale securities			
Balance at beginning of current fiscal year.....	¥2,041	¥2,624	\$22,525
Changes in items during the period:			
Net changes in items other than shareholders' equity.....	582	304	2,609
Total.....	582	304	2,609
Balance at end of current fiscal year.....	¥2,624	¥2,928	\$25,135
Deferred gains or losses on hedges			
Balance at beginning of current fiscal year.....	¥18	(¥0)	(\$0)
Changes in items during the period:			
Net changes in items other than shareholders' equity.....	(19)	0	0
Total.....	(19)	0	0
Balance at end of current fiscal year.....	(¥0)	-	-
Foreign currency translation adjustments			
Balance at beginning of current fiscal year.....	¥5,630	¥1,852	\$15,898
Cumulative effects of changes in accounting policies.....	15	-	-
Beginning balance after reflection of changes in accounting policies.....	¥5,646	¥1,852	\$15,898
Changes in items during the period:			
Net changes in items other than shareholders' equity.....	(3,793)	(4,150)	(35,625)
Total.....	(3,793)	(4,150)	(35,625)
Balance at end of current fiscal year.....	¥1,852	(¥2,297)	(\$16,718)
Remeasurements of defined benefit plans			
Balance at beginning of current fiscal year.....	¥16	¥66	\$566
Changes in items during the period:			
Net changes in items other than shareholders' equity.....	50	(288)	(2,472)
Total.....	50	(288)	(2,472)
Balance at end of current fiscal year.....	¥66	(¥221)	(\$1,887)
Accumulated other comprehensive income, total			
Balance at beginning of current fiscal year.....	¥7,707	¥4,543	\$38,999
Cumulative effects of changes in accounting policies.....	15	-	-
Beginning balance after reflection of changes in accounting policies.....	¥7,723	¥4,543	\$38,999
Changes in items during the period:			
Net changes in items other than shareholders' equity.....	(3,180)	(4,134)	(35,488)
Total.....	(3,180)	(4,134)	(35,488)
Balance at end of current fiscal year.....	¥4,543	¥409	\$3,511
Subscription rights to shares			
Balance at beginning of current fiscal year.....	¥389	¥469	\$4,026
Changes in items during the period:			
Net changes in items other than shareholders' equity.....	79	(2)	(17)
Total.....	79	(2)	(17)
Balance at end of current fiscal year.....	¥469	¥466	\$4,000
Non-controlling interests			
Balance at beginning of current fiscal year.....	¥0	¥0	\$0
Changes in items during the period:			
Net changes in items other than shareholders' equity.....	(0)	71	609
Total.....	(0)	71	609
Balance at end of current fiscal year.....	¥0	¥71	\$609
Net assets, total			
Balance at beginning of current fiscal year.....	¥124,314	¥127,243	\$1,092,308
Cumulative effects of changes in accounting policies.....	(3,297)	-	-
Beginning balance after reflection of changes in accounting policies.....	¥121,017	¥127,243	\$1,092,308
Changes in items during the period:			
Cash dividends.....	(2,955)	(3,031)	(26,019)
Net income attributable to owners of parent.....	13,282	12,962	111,271
Purchase of treasury stock.....	(999)	(0)	(0)
Disposal of treasury stock.....	-	83	712
Net changes in items other than shareholders' equity.....	(3,100)	(4,086)	(34,904)
Total.....	¥6,225	¥5,947	\$51,051
Balance at end of current fiscal year.....	¥127,243	¥133,191	\$1,143,388

See the notes to the consolidated financial statements.

Consolidated Statements of Cash Flows

HORIBA, Ltd. and Consolidated Subsidiaries
For the years ended December 31, 2015 and December 31, 2016

Thousands of
U.S. dollars
(Note 1)

	Millions of yen		U.S. dollars
	12/2015	12/2016	(Note 1) 12/2016
Cash flows from operating activities:			
Income before income taxes.....	¥19,804	¥17,243	\$148,021
Adjustments to reconcile income before income taxes to net cash provided by operating activities:			
Depreciation and amortization.....	6,110	6,816	58,511
Impairment loss.....	170	-	-
Increase (decrease) in allowance for doubtful receivables.....	(243)	110	944
Increase (decrease) in net defined benefit liability.....	(302)	349	2,995
Increase (decrease) in provision for loss on dissolution of the employees' pension fund.....	(603)	(19)	(163)
Interest and dividend income.....	(420)	(294)	(2,523)
Interest expense.....	816	574	4,927
Foreign exchange losses (gains).....	(106)	42	360
Loss (gain) on sales of property, plant and equipment.....	5	(32)	(274)
Loss on disposal of property, plant and equipment.....	10	219	1,879
Loss on valuation of investment securities.....	-	68	583
Loss (gain) on sales of investment securities.....	(44)	(0)	(0)
Decrease (increase) in trade notes and accounts receivable.....	(2,060)	(5,454)	(46,819)
Decrease (increase) in inventories.....	(917)	(1,461)	(12,541)
Increase (decrease) in trade notes and accounts payable.....	2,078	3,333	28,611
Other, net.....	(1,452)	837	7,185
Subtotal.....	22,844	22,330	191,690
Interest and dividends received.....	423	298	2,558
Interest paid.....	(814)	(569)	(4,884)
Income taxes (paid) refund.....	(7,682)	(6,187)	(53,111)
Net cash provided by (used in) operating activities.....	14,770	15,871	136,243
Cash flows from investing activities:			
Increase in time deposits.....	(3,204)	(2,857)	(24,525)
Decrease in time deposits.....	2,964	3,014	25,873
Decrease in time deposits restricted for use.....	32	32	274
Payments for purchase of marketable securities.....	(1,702)	(103)	(884)
Proceeds from sales or redemption of marketable securities.....	2,504	1,414	12,138
Payments for purchase of property, plant and equipment.....	(15,671)	(13,001)	(111,606)
Proceeds from sales of property, plant and equipment.....	68	53	454
Payments for purchase of intangibles.....	(1,442)	(373)	(3,201)
Payments for purchase of investment securities.....	(620)	(48)	(412)
Proceeds from sales or redemption of investment securities.....	83	4	34
Proceeds from sales of stocks of subsidiaries and affiliates.....	-	256	2,197
Payments for transfer of business.....	(13,610)	-	-
Other, net.....	(42)	1,180	10,129
Net cash provided by (used in) investing activities.....	(30,642)	(10,427)	(89,509)
Cash flows from financing activities:			
Net increase (decrease) in short-term borrowings.....	2,380	130	1,115
Increase in long-term debt.....	15,388	3,690	31,676
Repayments of long-term debt.....	(826)	(1,078)	(9,254)
Repayments on finance lease obligations.....	(170)	(195)	(1,673)
Proceeds from share issuance to non-controlling shareholders.....	-	60	515
Net decrease (increase) of treasury stock.....	(999)	(0)	(0)
Cash dividends paid.....	(2,928)	(3,058)	(26,251)
Net cash provided by (used in) financing activities.....	12,843	(451)	(3,871)
Effect of exchange rate changes on cash and cash equivalents.....	(668)	(911)	(7,820)
Net increase (decrease) in cash and cash equivalents.....	(3,697)	4,081	35,033
Cash and cash equivalents at beginning of year.....	51,109	47,859	410,842
Increase (decrease) in cash and cash equivalents resulting from change of scope of consolidation.....	446	-	-
Cash and cash equivalents at end of year.....	¥47,859	¥51,940	\$445,875

See the notes to the consolidated financial statements.

1. Basis of presenting consolidated financial statements

The accompanying consolidated financial statements of HORIBA, Ltd. ("the Company") have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Law and its related accounting regulations and in conformity with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to application and disclosure requirements from International Financial Reporting Standards.

The accounts of the consolidated overseas subsidiaries have been prepared in accordance with either International Financial Reporting Standards ("IFRS") or U.S. generally accepted accounting principles ("USGAAP"), with adjustments for the four specified items as applicable. The accompanying consolidated financial statements have been restructured and translated into English, with some expanded descriptions, from the consolidated financial statements of the Company prepared in accordance with Japanese GAAP and filed with the appropriate Local Finance Bureau of the Ministry of Finance as required by the Japanese Financial Instruments and Exchange Law. Some supplementary information included in the statutory Japanese language consolidated financial statements, but not required for fair presentation, is not presented in the accompanying consolidated financial statements.

The Company and its domestic consolidated subsidiaries had formerly recognized revenue mainly on a shipping basis. However, effective January 1 2016, the Company and its domestic consolidated subsidiaries have changed to revenue recognition method on a completion date of installation or a delivery date basis under the terms and conditions of contracts.

HORIBA's overseas consolidated subsidiaries, pursuant to IFRS or US GAAP, had recognized revenue on a completion date of installation or a delivery date basis under the terms and conditions of contracts. In addition, sales of products that require a long time for installation have been increasing. Consequently, HORIBA made a change to more adequately reflecting revenue status, upon introduction of the Enterprise Resource Planning System.

This change in accounting policy has been retrospectively applied to the consolidated financial statements for full-year period of fiscal year 2015.

As a result, net sales for fiscal year 2015 increased by ¥1,017 million, operating income increased by ¥769 million and income before income taxes increased by ¥790 million, respectively, as compared with the figures prior to the retrospective application. The net assets at the beginning of the previous fiscal year have reflected the cumulative effects, which resulted in a decrease by ¥3,223

million in retained earnings at the beginning of the previous fiscal year.

Net assets per share for fiscal year 2015 decreased by ¥66.69 while net income per share and diluted net income per share increased by ¥9.50 and ¥9.45 respectively, as compared with the figures prior to the retrospective application.

"Revised Accounting Standard for Business Combinations" (ASBJ Statement No. 21, released on Sep. 13, 2013, hereinafter the "Accounting Standard for Business Combinations"), "Revised Accounting Standard for Consolidated Financial Statements" (ASBJ Statement No. 22, released on Sep. 13, 2013, hereinafter the "Consolidated Accounting Standard"), "Revised Accounting Standard for Business Divestitures" (ASBJ Statement No. 7, released on Sep. 13, 2013, hereinafter the "Accounting Standard for Business Divestitures") and others have been adopted effective from the beginning of the year ended December 31, 2016. As a result, any change resulting from the Company's ownership interests in its subsidiary when the Company retains control over the subsidiary is accounted for as capital surplus, and acquisition related costs are expensed in the year in which the costs are incurred. For any business combinations on or after the beginning of the year, subsequent measurement of the provisional amount recognized based on the purchase price allocation due to the completion of accounting for the business combination are reflected in the consolidated financial statements for the year to which the date of that business combination occurs. In addition, the presentation method of net income was amended as well as "minority interests in consolidated subsidiaries" to "non-controlling interests." To reflect these changes in presentation, adjustments have been made to the consolidated financial statements for the prior fiscal year presented herein. The aforementioned accounting standards are adopted as of the beginning of the year and thereafter, according to the transitional treatment provided for in Paragraph 58-2 (4) of the Accounting Standard for Business Combinations, Paragraph 44-5 (4) of the Consolidated Accounting Standard and Paragraph 57-4 (4) of the Accounting Standard for Business Divestitures. There is no impact of these changes on profit and loss.

Yen amounts are rounded down to the nearest million. Therefore, total or subtotal amounts do not necessarily correspond with the aggregate of such account balances.

The translation of the Japanese yen amounts into U.S. dollar amounts is included solely for the convenience of readers outside Japan, using the prevailing exchange rate at December 31, 2016, which was ¥116.49 to U.S. \$1.00. The translations should not be construed as representations that the Japanese yen amounts have

been, could have been or could in the future be converted into U.S. dollars at this or any other rate of exchange. The U.S. dollars amounts are then rounded down to the nearest thousand.

Certain prior year amounts have been reclassified to conform to the current year's presentation.

2. Summary of significant accounting policies

(a) Principles of consolidation

The consolidated financial statements include the accounts of the Company and 48 (48 in fiscal 2015) of its subsidiaries ("HORIBA" as a consolidated group). From fiscal 2016, one newly established company has been included in scope of consolidation and one company has completed its liquidation and has been eliminated from the consolidation.

The accompanying consolidated financial statements include the accounts of the Company and significant companies over which the Company has control through majority voting rights or certain other conditions evidencing control by the Company. Significant intercompany transactions and accounts have been eliminated in consolidation. In the elimination of investments in subsidiaries, the assets and liabilities of the subsidiaries, including the portions attributable to non-controlling shareholders, are evaluated using the fair value at the time the Company acquired control of the respective subsidiary. Acquisition costs that are in excess of the net assets of acquired subsidiaries and affiliates and cannot be assigned to specific individual accounts are amortized on a straight-line basis over five years.

December 31 is the year-end of the consolidated subsidiaries and that of the consolidated financial statements for fiscal 2015 and fiscal 2016

One of the Company's subsidiaries is not included in the consolidated accounts as the effect of its inclusion on total assets, sales, income and retained earnings would have been immaterial.

The Company has one affiliated company (two in fiscal 2015). For one affiliated company, the equity method was applied.

(b) Cash and cash equivalents

Cash and cash equivalents include cash on hand, readily available bank deposits and short-term highly liquid investments that are readily convertible into cash, have insignificant risk of change in value and have original maturities of three months or less from date of purchase.

(c) Securities

Available-for-sale securities with available fair market values are stated at fair market value. Unrealized gains and losses on these securities are reported, net of applicable income taxes, as a separate component of net assets. Realized gains and losses on

the sale of such securities are computed using moving average cost. Available-for-sale securities with no available fair market value are stated mainly at moving average cost.

(d) Inventories

Inventories are stated at the lower of average cost or net realizable value. Cost is determined principally by the weighted average method for merchandise, finished goods and work-in-process and by the moving average method for raw materials and supplies.

(e) Property, plant and equipment and depreciation (except for leases)

Property, plant and equipment are stated at cost. Depreciation is computed by the straight-line method over the estimated useful life of the asset. The estimated useful lives of buildings and structures range from 3 to 60 years and those of machinery, equipment and vehicles from 2 to 20 years.

(f) Goodwill

Goodwill, which represents the excess of the purchase price over the fair value of the net assets acquired, is amortized on a straight-line basis over a period of five years.

(g) Intangibles

Amortization of intangibles is computed by the straight-line method. Computer software used by HORIBA is amortized over the estimated useful life of 3 to 10 years.

(h) Leases

With regard to leased assets under finance leases other than those that are deemed to transfer ownership of the leased property to the lessee, the lease term is deemed to be the useful life, and depreciation is computed by the straight-line method over the lease term with zero residual value. Finance leases other than those that are deemed to transfer ownership of the leased property to the lessee and which commenced in fiscal years beginning prior to January 1, 2009 continue to be accounted for in a way that is similar to the method used for operating leases.

(i) Allowance for doubtful receivables

The Company and its domestic subsidiaries provide for doubtful accounts principally at an amount computed based on the actual ratio of bad debts in the past plus the estimated uncollectible amounts of certain individual receivables. The overseas subsidiaries provide for doubtful accounts based on estimates made by management.

(j) Accrued bonuses to employees

Accrued bonuses to employees are provided for the expected payment of employee bonuses to those employees employed at the end of the fiscal year.

(k) Accrued bonuses to directors and corporate auditors

Some consolidated subsidiaries provide for accrued bonuses to

directors and corporate auditors for the expected payment of director and corporate auditor bonuses to those directors and corporate auditors serving at the end of the fiscal year.

(l) Reserve for product warranty

The reserve for product warranty is provided for accrued warranty expenses for products of the Company and certain subsidiaries. The provision is based on estimates made from actual past experience and product warranty records and takes into account individual cases.

(m) Provision for loss on dissolution of the employees' pension fund

As it was resolved to adopt Japanese government policy to carry out special dissolution of the employees' local pension fund (general type) in which the Company and a domestic consolidated subsidiary are members, HORIBA posted an estimated loss that will arise in relation to the dissolution.

(n) Provision for loss on disaster

Out of the expenditures needed for restoration and other arrangement of damaged assets from the earthquakes occurred in Kumamoto Prefecture, the estimated loss concerning the planned implementation in the next fiscal year and beyond is accounted for as provision for loss on disaster.

(o) Accounting methods associated with retirement benefits

i) Period-based method for estimated amount of retirement benefits

In calculating projected benefit obligations, the method to attribute the estimated amount of retirement benefits to the period up to the end of the current fiscal year is based on the benefit formula method.

ii) Recording of expenses for actuarial differences and prior service costs

Actuarial differences are recognized in expenses from the respectively occurring subsequent fiscal year, using the straight-line method over a fixed term of years (5 to 8 years), which is within the average of the estimated remaining service years of employees, at the time of occurrence of each fiscal year.

Prior service costs are recognized in expenses using the straight-line method over a fixed term of years (10 years), which is within the average of the estimated remaining service years of employees, commencing in the period they arise.

(p) Sales and costs of completed construction

Sales and costs of completed construction were recorded using the percentage of completion method when the progress of the construction up to the end of the year was deemed to be certain (estimates of the ratio of completion of construction work are based on the cost-to-cost method). In the case of other construction, sales

and costs were recorded using the completed contract method.

(q) Foreign currency translation

Short-term and long-term receivables and payables in foreign currencies are translated into Japanese yen based on exchange rates at the balance sheet date.

Balance sheet accounts of consolidated foreign subsidiaries are translated into Japanese yen at the balance sheet date, except for shareholders' equity accounts, which are translated at historical rates. Revenue and expense accounts of consolidated foreign subsidiaries are translated into Japanese yen at average annual exchange rates. Differences arising from the application of the processes stated above are presented separately in the consolidated financial statements in "Foreign currency translation adjustments" and "Non-controlling interests" in net assets.

(r) Derivatives

Derivative financial instruments are stated at fair value, and changes in the fair value are recognized as gains or losses, unless the derivative financial instruments are used for hedging purposes. HORIBA uses foreign currency exchange contracts to manage risk related to its importing and exporting activities. Regarding derivative transactions, in addition to conducting exchange agreement transactions within the limit of the balance of foreign currency-denominated receivables and payables, HORIBA conducts forward exchange agreement transactions for the expected foreign currency-denominated receivables and payables, which would be generated with certainty by scheduled export or import trading. HORIBA uses derivative financial instruments, such as interest rate swap contracts, and interest rate and currency swap contracts to avoid risks of fluctuations in interest rates and foreign exchange rates. Contracts are entered into and controlled by the finance department, which reports results to the director. Transactions involving derivative contracts are limited to highly rated banking institutions, and HORIBA considers that there are no material credit risks associated with them.

(s) Hedge accounting

i) Hedge accounting method

Deferred hedge accounting is applied. However, exceptional accounting treatment is applied to certain interest rate and currency swap contracts which conform to the requirements of integral accounting rules.

ii) Hedging instruments and hedged items

Hedging instruments: Forward foreign exchange contracts, etc., and interest rate and currency swap contracts

Hedged items: Foreign currency-denominated forecast transactions and foreign currency-denominated loans payable

iii) Hedging policy

Forward foreign exchange transactions are used to avoid foreign currency risks, and interest rate and currency swaps are used to avoid the risk of rising interest rates and foreign currency risks, based on the Company's Administrative Rules.

iv) Assessment of hedge effectiveness

The effectiveness of hedges is assessed by comparing the cumulative changes in cash flows of both hedging instruments and corresponding hedged items. However, an assessment of effectiveness is not conducted when the significant conditions of both hedging instruments and corresponding hedged items are the same.

(t) Research and development expenses

Research and development expenses are charged to income when incurred. Research and development expenses charged to income for fiscal 2015 and fiscal 2016 were ¥12,341 million and ¥12,933 million (\$111,022 thousand), respectively.

(u) Income taxes

Income taxes comprise corporate tax, enterprise tax and prefectural and municipal inhabitant taxes.

HORIBA recognizes the tax effects of loss carryforwards and the temporary differences between the carrying amounts of assets and liabilities for tax and financial reporting. The provision for current income tax is computed based on the pretax income included in the consolidated statements of income.

The asset/liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

The Company and its consolidated domestic subsidiaries have adopted the consolidated taxation system.

(v) Per share information

The computations of net income per share are based on the weighted average number of shares of common stock outstanding during each period. The weighted average number of shares of common stock used in the computation for fiscal 2015 and fiscal 2016 was 42,136 thousand and 42,121 thousand, respectively. Diluted net income per share of common stock assumes full conversion of dilutive convertible bonds at the beginning of the year or at the later date of issuance, with an applicable adjustment for related interest expense, net of tax and dilutive stock option plans. The weighted average number of shares used in the computation for fiscal 2015 and fiscal 2016 was 42,326 thousand and 42,308 thousand, respectively.

Cash dividends per share shown in the consolidated statements of income represent actual amounts applicable to earnings in the

respective fiscal year, including dividends to be paid after the end of the period.

3. Accounting standards issued but not yet effective

"Guidance on Recoverability of Deferred Tax Assets" (ASBJ Guidance No. 26, issued on March 28, 2016)

i) Overview

The practical guidance on accounting standards and auditing standards (where it is related to the accounting treatment) for tax effect accounting, issued by the Japanese Institute of Certified Public Accountants (JICPA), is to be transferred to the competence of the Accounting Standards Board of Japan (ASBJ). For the sake of the said transfer, "Implementation Guidance on Recoverability of Deferred Tax Assets (Implementation Guidance)" has been issued by ASBJ, based, in principle, on the framework used in the "Audit Treatment of Judgments with Regard to Recoverability of Deferred Tax Assets", where the recoverability is assessed in accordance with the five categories of a corporate entity. The Implementation Guidance made certain necessary changes in the criteria for these categories and also in the treatment of the amount of deferred tax assets. The Implementation Guidance thereby provides the guidelines in applying the "Accounting Standards for Tax Effect Accounting," by the Business Accounting Council, in view of recoverability of deferred tax assets.

(The requirements of classification and the changes in the treatment of the amount of deferred tax assets)

- (1) Treatment of companies that do not fulfill any of the requirements for classification from Category 1 to Category 5.
- (2) Requirements for classification as Category 2 and Category 3
- (3) Treatment of deductible temporary differences that cannot be scheduled for companies applicable to Category 2
- (4) Treatment of reasonably estimable periods of temporary differences in future pre-adjusted taxable income for companies applicable to Category 3
- (5) Treatment in cases where a company fulfilling the requirements of Category 4 is also applicable to Category 2 or Category 3

ii) Date of application

It is planned to apply these standards from the start of the fiscal year ending December 31, 2017.

iii) Effect of applying these accounting standards

HORIBA is currently evaluating the effect of applying these accounting standards on its consolidated financial statements.

4. Financial instruments

(1) Overview of financial instruments

Management policy

HORIBA carries out fund management with an emphasis on security and procures funds mainly through bank borrowings and bond issuances. Derivatives are used to manage foreign exchange fluctuation risk and interest rate fluctuation risk, and it is HORIBA's policy not to engage in speculative transactions.

Financial instruments, risks and risk management

Trade notes and accounts receivable, which are operating receivables, are exposed to the credit risk of customers. HORIBA endeavors to reduce this risk by conducting due date control and balance control and by attempting to promptly recognize collection concerns stemming from such factors as a deterioration in the financial condition of a customer.

Most trade notes and accounts payable, which are operating payables, have payment due dates within one year.

Some operating receivables and payables are denominated in foreign currencies and are exposed to foreign exchange fluctuation risk. However, HORIBA endeavors to reduce this risk by offsetting foreign currency denominated operating receivables and payables and by using forward exchange contracts, etc.

Marketable securities are mainly short-term investments with high liquidity such as negotiable deposits. Investment securities are mainly shares of companies that have a business relationships with HORIBA and are exposed to market value fluctuation risk. However, when acquiring or selling shares of a certain value, the Board of Directors considers the details of the transactions and HORIBA endeavors to reduce any risk by ensuring that the market value information regarding the shares is reported to the management team in a timely manner.

Short-term loans are mainly for financing related to operating transactions, while long-term loans and corporate bonds are mainly for financing related to plant and equipment and working capital.

Trade liabilities and loans are exposed to liquidity risk, but HORIBA endeavors to reduce this risk by using methods such as the preparation of cash flow plans.

Regarding derivative transactions, in addition to conducting exchange agreement transactions within the limit of the balance of foreign currency-denominated receivables and payables, HORIBA conducts forward exchange agreement transactions for the expected foreign currency-denominated receivables and payables, which would be generated with certainty by scheduled export or import trading. HORIBA uses derivative financial instruments, such as interest rate swap contracts and, interest rate and currency swap contracts to avoid risks of fluctuations in interest rates and foreign exchange rates, within the outstanding amount of borrowings. HORIBA's policy is not to engage in speculative transactions.

Supplementary explanation of the estimated fair value of financial instruments

The market value of financial instruments includes values based on market prices and amounts rationally calculated when there are no market prices available. As HORIBA incorporates variable factors when making these calculations, the amounts may change due to the adoption of different assumptions. With regard to contract amounts related to derivative transactions in the Notes to Consolidated Financial Statements item "Derivative transactions," the amounts do not indicate the market risk associated with derivative transactions themselves.

(2) Fair value of financial instruments

The book value and fair value of financial instruments and any difference between the two as of December 31, 2015 and December 31, 2016 are set forth in the table below. Financial instruments whose fair value was extremely difficult to estimate are not included (See Note 2). Cash and cash equivalents of ¥5,515 million and ¥977 million (\$8,386 thousand) for the fiscal years ended December 31, 2015 and December 31, 2016 are included in (3) Marketable securities and investment securities.

	Millions of yen			Millions of yen		
	12/2015			12/2016		
	Book value	Fair value	Difference	Book value	Fair value	Difference
Assets:						
(1) Cash and time deposits.....	¥43,922	¥43,922	-	¥52,272	¥52,272	-
(2) Trade notes and accounts receivable.....	50,128	50,128	-	53,724	53,724	-
(3) Marketable securities and investment securities						
Available-for-sale securities.....	14,965	14,965	-	9,438	9,438	-
Total.....	¥109,016	¥109,016	-	¥115,436	¥115,436	-
Liabilities:						
(1) Trade notes and accounts payable.....	¥17,675	¥17,675	-	¥20,013	¥20,013	-
(2) Short-term loans and current portion of long-term loans.....	12,879	12,879	-	12,463	12,463	-
(3) Accounts payable - other.....	14,759	14,759	-	14,041	14,041	-
(4) Accrued income taxes.....	3,796	3,796	-	1,838	1,838	-
(5) Bonds.....	15,000	15,219	¥219	15,000	15,214	¥214
(6) Long-term loans.....	16,826	16,823	(3)	19,255	19,419	163
Total.....	¥80,936	¥81,153	¥216	¥82,612	¥82,991	¥378
Derivative transactions						
(1) Hedge accounting not applied.....	¥144	¥144	-	(¥14)	(¥14)	-
(2) Hedge accounting applied.....	(0)	(0)	-	-	-	-
Total.....	¥144	¥144	-	(¥14)	(¥14)	-

	Thousands of U.S. dollars		
	12/2016		
	Book value	Fair value	Difference
Assets:			
(1) Cash and time deposits.....	\$448,725	\$448,725	-
(2) Trade notes and accounts receivable.....	461,189	461,189	-
(3) Marketable securities and investment securities			
Available-for-sale securities.....	81,019	81,019	-
Total.....	\$990,952	\$990,952	-
Liabilities:			
(1) Trade notes and accounts payable.....	\$171,800	\$171,800	-
(2) Short-term loans and current portion of long-term loans.....	106,987	106,987	-
(3) Accounts payable – other.....	120,533	120,533	-
(4) Accrued income taxes.....	15,778	15,778	-
(5) Bonds.....	128,766	130,603	\$1,837
(6) Long-term loans.....	165,293	166,701	1,399
Total.....	\$709,176	\$712,430	\$3,244
Derivative transactions			
(1) Hedge accounting not applied.....	(\$120)	(\$120)	-
(2) Hedge accounting applied.....	-	-	-
Total.....	(\$120)	(\$120)	-

Note 1. Method for calculating the fair value of financial instruments and notes regarding securities and derivative transactions.

Assets

(1) Cash and time deposits and (2) Trade notes and accounts receivable

As these are settled in the short term, market value approximates book value and is, therefore, based on the applicable book value.

(3) Marketable securities and investment securities

Market value for these is based on prices on securities exchanges in the case of shares, etc. For bonds, market value is based on prices on securities exchanges or prices indicated by corresponding financial institutions. For marketable securities classified by the purpose for which they are held, see Note 5.

Liabilities

(1) Trade notes and accounts payable, (2) Short-term loans and current portion of long-term loans, (3) Accounts payable – other and (4) Accrued income taxes

As these are settled in the short term, market value approximates book value and is, therefore, based on the applicable book value.

(5) Bonds

Market value for bonds issued by HORIBA is calculated based on market prices.

(6) Long-term loans

Borrowings based on variable interest rates reflect market interest rates, and as the creditworthiness of HORIBA has not changed significantly since execution, market value is considered to be approximate book value and is, therefore, based on applicable book value. The value of borrowings with fixed interest rates is based on the total amount of principal and interest discounted at an interest rate of a similar new loan.

Derivative transactions

See Note 14 for derivative transactions.

Net receivables (payables) derived from derivative transactions are displayed in the table above. Total net payables are shown in parenthesis.

Note 2. The following table summarizes financial instruments whose fair value was extremely difficult to estimate.

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
			12/2016
Non-listed equity securities.....	¥227	¥212	\$1,819
Investments in nonconsolidated subsidiaries and affiliates.....	69	46	394

The above financial instruments were not included in “(3) Marketable securities and investment securities” because they did not have market values and the fair value was extremely difficult to estimate.

Note 3. Repayment schedule of monetary claims, available-for-sales securities with maturities and bonds held to maturity.

Millions of yen				
12/2015				
	Within one year	Over one year but within five years	Over five years but within ten years	Over ten years
Cash and time deposits.....	¥43,922	-	-	-
Trade notes and accounts receivable.....	50,128	-	-	-
Marketable securities and investment securities				
Available-for-sale securities with maturities				
(1) Governmental/municipal bonds.....	10	-	-	-
(2) Corporate bonds.....	901	¥100	-	-
(3) Other bonds.....	499	-	-	-
(4) Other.....	500	25	-	-
Total.....	¥95,963	¥126	-	-

Millions of yen				
12/2016				
	Within one year	Over one year but within five years	Over five years but within ten years	Over ten years
Cash and time deposits.....	¥52,272	-	-	-
Trade notes and accounts receivable.....	53,724	-	-	-
Marketable securities and investment securities				
Available-for-sale securities with maturities				
(1) Governmental/municipal bonds.....	-	-	-	-
(2) Corporate bonds.....	200	-	-	-
(3) Other bonds.....	-	-	-	-
(4) Other.....	620	¥20	-	-
Total.....	¥106,818	¥20	-	-

Thousands of U.S. dollars				
12/2016				
	Within one year	Over one year but within five years	Over five years but within ten years	Over ten years
Cash and time deposits.....	\$448,725	-	-	-
Trade notes and accounts receivable.....	461,189	-	-	-
Marketable securities and investment securities				
Available-for-sale securities with maturities				
(1) Governmental/municipal bonds.....	-	-	-	-
(2) Corporate bonds.....	1,716	-	-	-
(3) Other bonds.....	-	-	-	-
(4) Other.....	5,322	\$171	-	-
Total.....	\$916,971	\$171	-	-

Note 4. Repayment schedule of short-term loans, bonds and long-term debt
See Note 8 for short-term loans and long-term debt.

5. Securities

The following table summarizes acquisition costs and book values (fair values) of available-for-sale securities as of December 31, 2015 and December 31, 2016.

	Millions of yen			Millions of yen		
	12/2015			12/2016		
	Book value	Acquisition cost	Difference	Book value	Acquisition cost	Difference
Securities with book values exceeding acquisition costs:						
Equity securities.....	¥7,869	¥4,076	¥3,792	¥8,237	¥4,091	¥4,145
Governmental/municipal bonds.....	10	10	0	-	-	-
Corporate bonds.....	201	200	1	100	100	0
Other bonds.....	-	-	-	-	-	-
Other.....	500	500	0	-	-	-
Subtotal.....	8,580	4,786	3,793	8,337	4,191	4,145
Securities with book values not exceeding acquisition costs:						
Equity securities.....	61	65	(3)	36	41	(4)
Governmental/municipal bonds.....	-	-	-	-	-	-
Corporate bonds.....	801	802	(0)	100	100	(0)
Other bonds.....	499	500	(0)	-	-	-
Other.....	5,022	5,022	(0)	964	964	(0)
Subtotal.....	6,384	6,389	(4)	1,101	1,106	(4)
Total.....	¥14,965	¥11,175	¥3,789	¥9,438	¥5,298	¥4,140

	Thousands of U.S. dollars		
	12/2016		
	Book value	Acquisition cost	Difference
Securities with book values exceeding acquisition costs:			
Equity securities.....	\$70,709	\$35,118	\$35,582
Governmental/municipal bonds.....	-	-	-
Corporate bonds.....	858	858	0
Other bonds.....	-	-	-
Other.....	-	-	-
Subtotal.....	71,568	35,977	35,582
Securities with book values not exceeding acquisition costs:			
Equity securities.....	309	351	(34)
Governmental/municipal bonds.....	-	-	-
Corporate bonds.....	858	858	(0)
Other bonds.....	-	-	-
Other.....	8,275	8,275	(0)
Subtotal.....	9,451	9,494	(34)
Total.....	\$81,019	\$45,480	\$35,539

Note. Non-listed equity securities, etc., of ¥227 million and ¥212 million (\$1,819 thousand) for the fiscal years ended December 31, 2015 and December 31, 2016, respectively, are not included in the above table because they did not have market values and the fair value was extremely difficult to estimate.

The following table summarizes available-for-sale securities sold for the fiscal year ended December 31, 2015 and December 31, 2016.

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Total sales of available-for-sale securities.....	¥81	¥2	\$17
Related gains.....	44	0	0

Impairment loss on marketable securities

HORIBA recognized an impairment loss of ¥68 million (\$583 thousand) in fiscal 2016 on non-listed equity securities categorized as available-for-sale securities. When applying impairment accounting, if the market value at the end of the term has fallen by more than 50% from the acquisition price, an impairment loss is applied to the entire amount. If the market value has fallen by approximately 30% to 50%, an impairment loss is applied to the amount recognized as necessary after considering the possibility of recovery, etc.

6. Inventories

Inventories at December 31, 2015 and December 31, 2016 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Merchandise and finished goods.....	¥15,696	¥15,118	\$129,779
Work-in-process.....	13,707	14,543	124,843
Raw materials and supplies.....	10,786	10,626	91,218
Total.....	¥40,190	¥40,289	\$345,858

7. Trade notes receivable maturing on December 31, 2015 and December 31, 2016, which were bank holidays

December 31, 2015 and December 31, 2016, the end of the period, were bank holidays. Trade notes receivable maturing on those dates were settled on the following business day. Therefore, notes in the amount of ¥332 million were included in the ending balance at December 31, 2015 and notes in the amount of ¥427 million (\$3,665 thousand) were included in the ending balance at December 31, 2016.

8. Short-term loans and long-term debt

Short-term loans are generally represented by bank notes with annual interest rates ranging from 0.57% to 17.02% and 0.45% to 15.77% at December 31, 2015 and December 31, 2016, respectively.

Long-term debt at December 31, 2015 and December 31, 2016 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
0.609% unsecured bonds due in 2020.....	¥15,000	¥15,000	\$128,766
Loans from banks due serially from 2017 to 2026 at rates from 0.09% to 12.25% per annum.....	17,480	20,269	173,997
Lease obligations at 4.68% maturing serially through 2022.....	522	434	3,725
Total.....	33,002	35,703	306,489
Current portion.....	(848)	(1,158)	(9,940)
Long-term debt, less current portion.....	¥32,153	¥34,545	\$296,549

The aggregate annual maturities of long-term debt outstanding at December 31, 2016 were as follows:

Year ending December 31	Millions of yen	Thousands of U.S. dollars
2017.....	¥1,158	\$9,940
2018.....	696	5,974
2019.....	1,612	13,838
2020.....	15,532	133,333
2021.....	421	3,614
Thereafter.....	16,281	139,763
Total.....	¥35,703	\$306,489

As of December 31, 2016, the Company and its 8 subsidiaries had entered into agreements for bank overdrafts or loan commitments with 9 banks as follows:

	Millions of yen	Thousands of U.S. dollars
The maximum aggregate principal.....	¥16,745	\$143,746
Amount utilized.....	833	7,150
Balance available.....	¥15,912	\$136,595

As of December 31, 2016, assets were pledged as collateral for short-term loans and current portion of long-term debt of ¥142 million (\$1,218 thousand) and long-term debt of ¥55 million (\$472 thousand) as follows:

	Millions of yen	Thousands of U.S. dollars
Cash and time deposits.....	¥500	\$4,292
Land.....	120	1,030
Machinery, equipment and vehicles.....	429	3,682
Total.....	¥1,050	\$9,013

9. Employees' severance and pension benefits

(1) Outline of adopted retirement pension fund

The Company and domestic consolidated subsidiaries have adopted a funded defined benefit pension plan (cash balance plan) and a defined contribution pension plan. Certain overseas consolidated subsidiaries have adopted funded and unfunded defined benefit plans and a defined contribution plan.

The Company and a domestic consolidated subsidiary have been members of the Kyoto Machinery and Metal Employees' Pension Fund (general type). As it is not possible to reasonably calculate the amount of pension assets corresponding to the company's own contributions, accounting procedures are the same as for defined contribution plans.

(2) Defined benefits plan

(a) The changes in projected benefit obligation for the years ended December 31, 2015 and December 31, 2016 were as follows:

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
			12/2016
Balance at beginning of year.....	¥8,449	¥8,868	\$76,126
Cumulative effects of changes in accounting policies.....	139	-	-
Restated balance.....	8,589	8,868	76,126
Service cost.....	561	614	5,270
Interest expense on projected benefit obligation.....	127	132	1,133
Actuarial differences.....	(27)	518	4,446
Benefits paid.....	(245)	(294)	(2,523)
Other.....	(137)	(227)	(1,948)
Balance at end of year.....	¥8,868	¥9,612	\$82,513

(b) The changes in pension assets for the years ended December 31, 2015 and December 31, 2016 were as follows:

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
			12/2016
Balance at beginning of year.....	¥6,187	¥6,920	\$59,404
Expected return on pension assets.....	169	197	1,691
Actuarial differences.....	14	(91)	(781)
Contributions from the employer.....	798	709	6,086
Benefits paid.....	(241)	(238)	(2,043)
Other.....	(8)	(75)	(643)
Balance at end of year.....	¥6,920	¥7,420	\$63,696

(c) Reconciliation between the net defined benefit liability and the net defined benefit asset posted in the consolidated balance sheets, and the balances of projected benefit obligation and pension assets for the years ended December 31, 2015 and December 31, 2016 were as follows:

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
			12/2016
Funded projected benefit obligation.....	¥7,640	¥8,286	\$71,130
Pension assets.....	(6,920)	(7,420)	(63,696)
	720	865	7,425
Unfunded projected benefit obligation.....	1,227	1,326	11,382
Net liability for retirement benefits in the consolidated balance sheets.....	1,947	2,191	18,808
Net defined benefit liability.....	1,947	2,191	18,808
Net liability for retirement benefits in the consolidated balance sheets.....	¥1,947	¥2,191	\$18,808

(d) The components of retirement benefits expense for the years ended December 31, 2015 and December 31, 2016 were as follows:

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
			12/2016
Service cost.....	¥561	¥614	\$5,270
Interest expense on projected benefit obligation.....	127	132	1,133
Expected return on pension assets.....	(169)	(197)	(1,691)
Amortization of actuarial differences.....	(7)	102	875
Retirement benefits expense.....	¥511	¥652	\$5,597

(e) The components of remeasurements of defined benefit plans (before tax effect) in the consolidated statements of comprehensive income for the years ended December 31, 2015 and December 31, 2016 were as follows:

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
			12/2016
Actuarial differences.....	¥26	(¥450)	(\$3,862)
Total.....	¥26	(¥450)	(\$3,862)

(f) The components of remeasurements of defined benefit plans (before tax effect) in the consolidated balance sheets as of December 31, 2015 and December 31, 2016 were as follows:

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
Unrecognized actuarial differences.....	¥82	(¥316)	12/2016 (\$2,712)
Total.....	¥82	(¥316)	(\$2,712)

(g) Pension assets

i) The pension assets by major category as a percentage of total pension assets as of December 31, 2015 and December 31, 2016 were as follows:

	12/2015	12/2016
Debt investments.....	40.6%	43.1%
Equity investments.....	27.4	23.8
Mutual funds (Note).....	15.7	17.2
Other.....	16.3	15.9
Total.....	100.0%	100.0%

Note. Mutual funds primarily invest in debt investments.

ii) Method of determining the expected rate of return on pension assets

The expected rate of return on pension assets is determined considering the current and anticipated future portfolio of pension assets and, the long-term rates of return which are expected currently and in the future from the various components of the pension assets.

(h) Assumptions used for the years ended December 31, 2015 and December 31, 2016 were as follows:

	12/2015	12/2016
Discount rate (mainly).....	1.0–1.2%	0.6–0.8%
Expected rate of return on pension assets (mainly).....	2.5%	2.5%
Expected rate of salary raises (mainly).....	3.9–4.0%	3.5–4.0%

Note. A point system is used as the basis for the calculation of expected rates of salary raises.

(3) Defined contribution plan

Benefits expense for the defined contribution plan for the years ended December 31, 2015 and December 31, 2016 was ¥962 million and ¥1,082 million (\$9,288 thousand), respectively.

(4) Multi-employer pension plan

Benefits expense for the multi-employer pension plan, for which accounting procedures are the same as for defined contribution plans, for the years ended December 31, 2015 and December 31, 2016 was ¥423 million and ¥403 million (\$3,459 thousand), respectively.

(a) Funded status of pension plans (available information as of March 31, 2015 and March 31, 2016)

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
Fair value of plan assets.....	¥58,075	¥53,199	12/2016 \$456,682
Total of actuarial obligation and minimum actuarial reserve.....	76,550	71,070	610,095
Net balance.....	(¥18,474)	(¥17,871)	(\$153,412)

(b) Ratio of HORIBA's contribution to the multi-employer plans relative to the contributions to the overall retirement benefit plans were as follows:

From March 1, 2015 to March 31, 2015: 16.79%

From March 1, 2016 to March 31, 2016: 17.03%

Note 1. Net balance resulted from the prior service cost of ¥19,024 million and ¥18,531 million (\$159,078 thousand) and the general reserve for plan assets of ¥549 million and ¥659 million (\$5,657 thousand) for the years ended December 31, 2015 and December 31, 2016, respectively.

Note 2. Prior service cost is amortized over 20 years.

Note 3. The percentage of HORIBA's contribution to the multi-employer pension plan described above in (4)(b) should not be construed as the percentage of HORIBA's actual obligation.

Note 4. As it was resolved to adopt Japanese government policy to carry out special dissolution of the Fund at the representative assembly that took place on February 20, 2015, HORIBA posted an estimated loss that will arise in relation to the dissolution. Consequently, we posted provision for loss on dissolution of the employees' pension fund of ¥1,247 million (\$10,704 thousand) under long-term liabilities in the consolidated balance sheets.

10. Net assets

Under Japanese laws and regulations, the entire amount paid for new shares is required to be designated as common stock. However, a company may, by a resolution of the Board of Directors, designate an amount not exceeding one half of the price of the new shares as additional paid-in capital, which is included in capital surplus.

Under the Japanese Corporate Law ("the Law"), in cases where a dividend distribution of surplus is made, the smaller of an amount equal to 10% of the dividend or the excess, if any, of 25% of common stock over the total of additional paid-in capital and legal earnings reserve must be set aside as additional paid-in capital or legal earnings reserve. Legal earnings reserve is included in retained earnings in the accompanying consolidated balance sheets.

Additional paid-in capital and legal earnings reserve may not be distributed as dividends. Under the Law, all additional paid-in capital and all legal earnings reserve may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends. Both of these appropriations generally require a resolution of the shareholder's meeting.

The maximum amount that the Company can distribute as dividends is calculated based on the nonconsolidated financial statements of the Company in accordance with Japanese laws and regulations.

At the Board of Directors' meeting held on February 14, 2017, the Board of Directors approved cash dividends in the amount of ¥2,317 million (\$19,890 thousand). The appropriation had not been accrued in the consolidated financial statements as of December 31, 2016. Such appropriations are recognized in the period in which they are approved by the Board of Directors.

11. Stock options

(1) Expenses and items related to stock options

	Millions of yen		Thousands of U.S.dollars
	12/2015	12/2016	12/2016
Selling, general and administrative expenses.....	¥79	¥80	\$686

(2) Scale and movement (fluctuation) of stock options

Information regarding stock options outstanding. The number of stock options is stated after conversion into an equal number of shares.

(a) Details of stock options

	No. 1 Stock-based Compensation Type Stock Option	No. 2 Stock-based Compensation Type Stock Option	No. 3 Stock-based Compensation Type Stock Option	No. 4 Stock-based Compensation Type Stock Option
Persons granted options	4 directors and 13 corporate officers of the Company	4 directors and 14 corporate officers of the Company	4 directors and 16 corporate officers of the Company	4 directors and 16 corporate officers of the Company
Number of shares by type of stock (Note 1)	Common stock 54,200 shares	Common stock 26,400 shares	Common stock 31,000 shares	Common stock 28,200 shares
Date of grant	April 16, 2009	April 23, 2010	April 21, 2011	April 24, 2012
Vesting conditions	(Note 2)	(Note 2)	(Note 2)	(Note 2)
Service period	(Note 3)	(Note 3)	(Note 3)	(Note 3)
Exercise period	April 17, 2009 to April 16, 2039	April 24, 2010 to April 23, 2040	April 22, 2011 to April 21, 2041	April 25, 2012 to April 24, 2042

	No. 5 Stock-based Compensation Type Stock Option	No. 6 Stock-based Compensation Type Stock Option	No. 7 Stock-based Compensation Type Stock Option	No. 8 Stock-based Compensation Type Stock Option
Persons granted options	4 directors and 14 corporate officers of the Company, 2 directors and 3 corporate officers of the subsidiaries	5 directors and 12 corporate officers of the Company, 3 directors and 6 corporate officers of the subsidiaries	5 directors and 13 corporate officers of the Company, 3 directors and 8 corporate officers of the subsidiaries	5 directors and 14 corporate officers of the Company, 4 directors and 9 corporate officers of the subsidiaries
Number of shares by type of stock (Note 1)	Common stock 33,200 shares	Common stock 27,500 shares	Common stock 22,100 shares	Common stock 25,900 shares
Date of grant	May 8, 2013	April 24, 2014	May 8, 2015	May 10, 2016
Vesting conditions	(Note 2)	(Note 2)	(Note 2)	(Note 2)
Service period	(Note 3)	(Note 3)	(Note 3)	(Note 3)
Exercise period	May 9, 2013 to May 8, 2043	April 24, 2014 to April 23, 2044	May 9, 2015 to May 8, 2045	May 11, 2016 to May 10, 2046

Note 1. Stock options are convertible into an equal number of shares.

Note 2. Vesting conditions are not stipulated.

Note 3. The service period is not stipulated.

(b) Number, movement and price of stock options

Stock options are convertible into an equal number of shares.

(i) Number of shares

	No. 1 Stock-based Compensation Type Stock Option	No. 2 Stock-based Compensation Type Stock Option	No. 3 Stock-based Compensation Type Stock Option	No. 4 Stock-based Compensation Type Stock Option
Options before vesting (number of shares)				
Balance at December 31, 2015	-	-	-	-
Granted	-	-	-	-
Forfeited	-	-	-	-
Vested	-	-	-	-
Balance at December 31, 2016	-	-	-	-
Options after vesting (number of shares)				
Balance at December 31, 2015	42,700	22,000	27,300	24,900
Vested	-	-	-	-
Exercised	8,700	4,200	5,000	4,400
Forfeited	-	-	-	-
Balance at December 31, 2016	34,000	17,800	22,300	20,500

	No. 5 Stock-based Compensation Type Stock Option	No. 6 Stock-based Compensation Type Stock Option	No. 7 Stock-based Compensation Type Stock Option	No. 8 Stock-based Compensation Type Stock Option
Options before vesting (number of shares)				
Balance at December 31, 2015	-	-	-	-
Granted	-	-	-	25,900
Forfeited	-	-	-	-
Vested	-	-	-	25,900
Balance at December 31, 2016	-	-	-	-
Options after vesting (number of shares)				
Balance at December 31, 2015	31,400	27,500	22,100	-
Vested	-	-	-	25,900
Exercised	5,400	4,800	3,600	-
Forfeited	-	-	-	-
Balance at December 31, 2016	26,000	22,700	18,500	25,900

(ii) Price per share

	No. 1 Stock-based Compensation Type Stock Option	No. 2 Stock-based Compensation Type Stock Option	No. 3 Stock-based Compensation Type Stock Option	No. 4 Stock-based Compensation Type Stock Option
Option price (yen)	1	1	1	1
Weighted average stock price (yen)	4,080	4,080	4,080	4,080
Fair value at grant date (yen)	1,091	2,628	2,208	2,245

	No. 5 Stock-based Compensation Type Stock Option	No. 6 Stock-based Compensation Type Stock Option	No. 7 Stock-based Compensation Type Stock Option	No. 8 Stock-based Compensation Type Stock Option
Option price (yen)	1	1	1	1
Weighted average stock price (yen)	4,080	4,080	4,080	-
Fair value at grant date (yen)	2,988	2,739	3,598	3,116

(3) Method to estimate fair unit value of stock options

The grant date fair value of No. 8 Stock-based Compensation Type Stock Option in the year ended December 31, 2016 was estimated using the Black-Scholes option pricing model as follows:

	No. 8 Stock-based Compensation Type Stock Option
Stock price volatility (Note 1)	35.6%
Expected remaining period (Note 2)	15 Years
Expected dividend (Note 3)	¥70/share
Risk free interest rate (Note 4)	0.054%

Note 1. Stock price volatility was calculated based on actual weekly stock prices over 15 years (from the week of May 7, 2001 to the week of May 2, 2016).

Note 2. As it was difficult to estimate the expected remaining period without sufficient relevant data, it was determined to be exercised at the mid-point of the exercise period.

Note 3. Expected dividend was calculated by using the actual dividend paid for the year ended December 31, 2015.

Note 4. Risk free interest rate represents the comparable compound interest rate of strip government bonds whose remaining period corresponds to the expected remaining period of the stock options.

(4) Condition regarding the estimate of the fair unit value of stock options

Retirement from the office of director is a condition to exercise stock options, but continuous employment is not. Accordingly, the initial number of stock options granted is used as an estimate of the number of vested shares.

12. Leases

Finance leases which do not transfer ownership at December 31, 2015 and December 31, 2016 consisted of leases for office equipment and software. The method of depreciation and amortization of lease assets is described in Note 2(h), "Summary of significant accounting policies – Leases."

With respect to finance lease transactions that do not transfer ownership and in which the lease transaction began before December 31, 2008, the Company has continued to account for them in the same manner as operating leases as stated above.

At December 31, 2015 and December 31, 2016, assets leased under non-capitalized finance leases were as follows:

Acquisition cost, accumulated depreciation and balance of assets leased

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Machinery, equipment and vehicles.....	¥5	¥5	\$42
Less accumulated depreciation and amortization.....	(4)	(5)	(42)
Total.....	¥1	¥0	\$0

Note. The above depreciation and amortization was calculated by the straight-line method over the term of the lease. If the above leases had been capitalized, interest of ¥0 million and ¥0 million (\$0 thousand) and depreciation and amortization of ¥7 million and ¥0 million (\$0 thousand) would have been recorded for the years ended December 31, 2015 and December 31, 2016, respectively. Lease payments under non-capitalized finance leases were ¥7 million and ¥0 million (\$0 thousand) for the years ended December 31, 2015 and December 31, 2016, respectively. Obligations under finance leases at December 31, 2015 and December 31, 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Payments remaining:			
Payments due within 1 year.....	¥0	¥0	\$0
Payments due after 1 year.....	0	-	-
Total.....	¥1	¥0	\$0

Payments remaining under operating leases at December 31, 2015 and December 31, 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Payments remaining:			
Payments due within 1 year.....	¥873	¥736	\$6,318
Payments due after 1 year.....	1,767	1,453	12,473
Total.....	¥2,640	¥2,189	\$18,791

13. Contingent liabilities

Not applicable

14. Derivative transactions

Derivative transactions for which hedge accounting was not applied at December 31, 2015 and December 31, 2016 were as follows:

Currency related:

	Millions of yen				Millions of yen			
	12/2015				12/2016			
	Contract amount	Amount of principal due over 1 year	Fair value	Gain (loss)	Contract amount	Amount of principal due over 1 year	Fair value	Gain (loss)
Forwards								
Selling								
US dollar	¥3,079	-	¥9	¥9	¥4,083	-	(¥12)	(¥12)
Euro	1,307	-	(2)	(2)	1,032	-	(32)	(32)
British pound	6,998	-	104	104	450	¥280	8	8
New Taiwan dollar	86	-	0	0	146	-	0	0
Japanese yen	-	-	-	-	5	-	0	0
Chinese yuan	-	-	-	-	21	-	(1)	(1)
Polish zloty	18	-	(0)	(0)	16	-	(0)	(0)
Thai baht	17	-	0	0	14	-	0	0
Indian rupee	60	-	(1)	(1)	30	-	(1)	(1)
Brazilian real	38	-	1	1	113	-	(0)	(0)
Buying								
US dollar	497	-	(1)	(1)	405	-	1	1
Euro	456	-	(5)	(5)	89	-	3	3
British pound	37	-	(0)	(0)	7	-	(0)	(0)
New Taiwan dollar	-	-	-	-	18	-	(0)	(0)
Japanese yen	51	-	(0)	(0)	5	-	(0)	(0)
Chinese yuan	219	-	(6)	(6)	84	-	(0)	(0)
Polish zloty	-	-	-	-	6	-	(0)	(0)
Currency swaps								
Receiving in US dollar and paying in Brazilian real	58	¥34	48	48	28	13	19	19
Total	¥12,926	¥34	¥144	¥144	¥6,563	¥293	(¥14)	(¥14)

Note. Fair value is determined by banking institutions.

	Thousands of U.S. dollars			
	12/2016			
	Contract amount	Amount of principal due over 1 year	Fair value	Gain (loss)
Forwards				
Selling				
US dollar	\$35,050	-	(\$103)	(\$103)
Euro	8,859	-	(274)	(274)
British pound	3,862	\$2,403	68	68
New Taiwan dollar	1,253	-	0	0
Japanese yen	42	-	0	0
Chinese yuan	180	-	(8)	(8)
Polish zloty	137	-	(0)	(0)
Thai baht	120	-	0	0
Indian rupee	257	-	(8)	(8)
Brazilian real	970	-	(0)	(0)
Buying				
US dollar	3,476	-	8	8
Euro	764	-	25	25
British pound	60	-	(0)	(0)
New Taiwan dollar	154	-	(0)	(0)
Japanese yen	42	-	(0)	(0)
Chinese yuan	721	-	(0)	(0)
Polish zloty	51	-	(0)	(0)
Currency swaps				
Receiving in US dollar and paying in Brazilian real	240	111	163	163
Total	\$56,339	\$2,515	(\$120)	(\$120)

Derivative transactions for which hedge accounting was applied at December 31, 2015 and December 31, 2016 were as follows:

Currency related:

	Millions of yen				Millions of yen			
	12/2015				12/2016			
	Hedged items	Contract amount	Amount of principal due over 1 year	Fair value	Hedged items	Contract amount	Amount of principal due over 1 year	Fair value
Forwards								
Buying								
US dollar	Accounts	¥125	-	¥0	Accounts	-	-	-
Euro	payable	160	-	(1)	payable	-	-	-
Total		¥286	-	(¥0)		-	-	-

Note. Fair value is determined by banking institutions.

	Thousands of U.S. dollars			
	12/2016			
	Hedged items	Contract amount	Amount of principal due over 1 year	Fair value
Forwards				
Buying				
US dollar	Accounts	-	-	-
Euro	payable	-	-	-
Total		-	-	-

Interest rate currency related:

	Millions of yen				Millions of yen			
	12/2015				12/2016			
	Hedged items	Contract amount	Amount of principal due over 1 year	Fair value	Hedged items	Contract amount	Amount of principal due over 1 year	Fair value
Exceptional accounting for interest rate and currency swaps								
Interest rate and currency swap contracts								
Fixed rate payments and variable rate receipts								
Receiving in US dollar and paying in Japanese yen	Long-term loans	¥15,120	¥15,120	Note	Long-term loans	¥15,120	¥15,120	Note

	Thousands of U.S. dollars			
	12/2016			
	Hedged items	Contract amount	Amount of principal due over 1 year	Fair value
Exceptional accounting for interest rate and currency swaps				
Interest rate and currency swap contracts				
Fixed rate payments and variable rate receipts				
Receiving in US dollar and paying in Japanese yen	Long-term loans	\$129,796	\$129,796	Note

Note. Interest rate and currency swap contracts subject to exceptional accounting treatment (special treatment and allocation treatment) are accounted for together with long-term loans as hedged items. Accordingly, their fair values are included in the fair values of long-term loans.

15. Income taxes

The Company is subject to a number of taxes based on income, which, in the aggregate, indicate a statutory income tax rate in Japan of approximately 35.5% and 33.0% for the years ended December 31, 2015 and December 31, 2016, respectively.

The following table summarizes the significant differences between the statutory tax rate and HORIBA's effective tax rate for financial statement purposes for the years ended December 31, 2015 and December 31, 2016.

	12/2015	12/2016
Statutory tax rate.....	35.5%	33.0%
Expenses not qualifying for permanent deduction, e.g. entertainment expenses.....	1.8	0.6
Nontaxable dividend income.....	(1.3)	(0.2)
Per capita inhabitants tax.....	0.2	0.3
Increase/decrease in valuation allowance for deferred tax assets.....	1.8	(4.5)
Differences in tax rate between foreign subsidiaries and the Company.....	(1.5)	(0.3)
Tax credits.....	(5.7)	(4.9)
Reduction in deferred tax assets by the changes of tax rate.....	1.4	0.8
Other.....	0.6	0.0
Effective tax rate.....	32.9%	24.8%

Significant components of HORIBA's deferred tax assets and liabilities at December 31, 2015 and December 31, 2016 were as follows:

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
Deferred tax assets			12/2016
Accrued enterprise tax.....	¥207	¥43	\$369
Loss on write-down of inventory.....	1,151	1,221	10,481
Allowance for doubtful receivables.....	70	126	1,081
Accrued bonuses.....	190	214	1,837
Loss carryforwards.....	1,540	1,293	11,099
Unrealized gains.....	1,807	1,466	12,584
Net defined benefit liability.....	411	564	4,841
Depreciation.....	445	398	3,416
Loss on valuation of investment securities.....	81	91	781
Loss on impairment of fixed assets.....	106	100	858
Provision for loss on dissolution of the employees' pension fund.....	408	381	3,270
Effects of changes in accounting policies.....	2,757	366	3,141
Other.....	3,347	2,946	25,289
Total deferred tax assets.....	12,526	9,214	79,096
Valuation allowance.....	(1,728)	(1,268)	(10,885)
Net deferred tax assets.....	10,798	7,945	68,203
Deferred tax liabilities			
Unrealized losses.....	(390)	(390)	(3,347)
Unrealized gains (losses) on available-for-sale securities.....	(1,164)	(1,211)	(10,395)
Effects of changes in accounting policies.....	(1,691)	(272)	(2,334)
Other.....	(2,013)	(1,191)	(10,224)
Total deferred tax liabilities.....	(5,259)	(3,066)	(26,319)
Net deferred tax assets.....	¥5,538	¥4,879	\$41,883

Net deferred tax assets are included in the consolidated balance sheets as follows:

	Millions of yen		Thousands of
	12/2015	12/2016	U.S. dollars
Current assets.....	¥5,140	¥4,160	\$35,711
Investments and other noncurrent assets.....	1,671	1,726	14,816
Current liabilities.....	(91)	(76)	(652)
Long-term liabilities.....	(1,181)	(931)	(7,992)
Net deferred tax assets.....	¥5,538	¥4,879	\$41,883

(Revision of amount of deferred tax assets and deferred tax liabilities due to change in rate of corporate and other income taxes) The Act for Partial Amendment of the Income Tax Act (Act No. 15 of 2016) and the Act for Partial Amendment of the Local Tax Act (Act No. 13 of 2016) were enacted in the Diet session on March 29, 2016, and the statutory effective tax rate for the consolidated fiscal year on and after April 1, 2016 was reduced. Following the Act, the statutory effective tax rate used to calculate deferred tax assets and deferred tax liabilities was changed from 32.2% to 30.8% for temporary differences expected to be reversed in the fiscal year beginning on January 1, 2017 and 2018, and to 30.5% for temporary differences expected to be reversed in the fiscal years beginning on and after January 1, 2019.

Due to such change in tax rate, the amount of deferred tax assets (netted with deferred tax liabilities) and remeasurements of defined benefit plans decreased by ¥75 million (\$643 thousand) and ¥2 million (\$17 thousand), respectively, while income taxes (deferred) and unrealized gains (losses) on available-for-sale securities increased by ¥139 million (\$1,193 thousand) and ¥66 million (\$566 thousand), respectively.

16. Impairment loss

HORIBA reviewed its long-lived assets for impairment, and, as a result, impairment losses were recognized by the Company for the following asset groups as other expenses for the year ended December 31, 2015.

Location	Use	Type	Millions of yen
Sao Paulo, Brazil	Planned to be sold	Machinery and equipment	¥170

(Background)

In the case of assets that are planned to be sold, they have been estimated that losses will arise due to the sales. Thus, the book value of these assets was lowered to the recoverable value, and the resulting impairment loss was recognized as other expenses.

(Method used for grouping)

In connection with the use of impairment accounting, business assets are grouped on a reporting segment basis. Idle assets, etc., are grouped on a property-by-property basis.

(Method used for calculating a recoverable amount)

The recoverable amount was measured according to estimated net realizable value. Assets that are planned to be sold were estimated at the contract amount.

HORIBA reviewed its long-lived assets for impairment, and, as a result, impairment losses were not recognized for the year ended December 31, 2016.

17. Consolidated statement of comprehensive income

Components of other comprehensive income for the years ended December 31, 2015 and December 31 2016 consisted of the following

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Unrealized gains (losses) on available-for-sale securities:			
Increase (decrease) during the year.....	¥778	¥351	\$3,013
Reclassification adjustment.....	(44)	-	-
Subtotal, before tax.....	733	351	3,013
Tax (expense) or benefit.....	(150)	(47)	(403)
Subtotal, net tax.....	582	304	2,609
Deferred gains or losses on hedges			
Increase (decrease) during the year.....	(63)	(29)	(248)
Reclassification adjustment.....	33	30	257
Subtotal, before tax.....	(29)	0	0
Tax (expense) or benefit.....	10	(0)	(0)
Subtotal, net tax.....	(19)	0	0
Foreign currency translation adjustments			
Increase (decrease) during the year.....	(3,793)	(4,040)	(34,681)
Reclassification adjustment.....	-	(113)	(970)
Subtotal, before tax.....	(3,793)	(4,153)	(35,651)
Tax (expense) or benefit.....	-	-	-
Subtotal, net tax.....	(3,793)	(4,153)	(35,651)
Remeasurements of defined benefit plans			
Increase (decrease) during the year.....	53	(553)	(4,747)
Reclassification adjustment.....	(26)	102	875
Subtotal, before tax.....	26	(450)	(3,862)
Tax (expense) or benefit.....	23	161	1,382
Subtotal, net tax.....	50	(288)	(2,472)
Total other comprehensive income.....	(¥3,180)	(¥4,137)	(\$35,513)

18. Segment information

General information regarding reportable segments

(1) Calculation method for reportable segments

HORIBA's reportable segments are components of the Company about which separate financial information is available and that are evaluated regularly by the management in deciding how to allocate resources and in assessing performance.

The Company has established the segment strategy office for each product and service at its headquarters which draws a comprehensive plan for Japan and overseas markets for business development.

The Company thus is composed of business segments by product and service that are determined at the head office. The Automotive Test Systems, Process & Environmental Instruments & Systems, Medical-Diagnostic Instruments & Systems, Semiconductor Instruments & Systems and Scientific Instruments & Systems comprise five reportable segments.

Major products and services of each segment are described below.

(a) Automotive Test Systems

Emission Measurement Systems, In-Use Automotive Emissions Analyzers, On-Board Emission Measurement, Driveline Test Systems, Engine Test Systems, Brake Test Systems, Drive Recorders, Engineering Consultancy, Test Services & Consultancy, Leasing of R&D Facility

(b) Process & Environmental Instruments & Systems

Stack Gas Analyzers, Water Quality Analysis and Examination Systems, Air Pollution Analyzers, Environmental Radiation Monitors

(c) Medical-Diagnostic Instruments & Systems

Hematology Analyzers, Equipment for Measuring Immunological Responses, Clinical Chemistry Analyzers, Blood Sugar Measurement Systems

(d) Semiconductor Instruments & Systems

Mass Flow Controllers, Chemical Concentration Monitors, Reticle/Mask Particle Detection Systems, Residual Gas Analyzers

(e) Scientific Instruments & Systems

pH Meters, Particle-Size Distribution Analyzers, X-Ray Fluorescence Analyzers, Raman, Spectrophotometers, Gratings

(2) Method of measurement regarding income (loss), assets and other material items by reportable segment

The accounting methods applied for reportable segments are identical with those stated in Note 2, "Summary of significant accounting policies." Income for each reportable segment is the amount based on operating income.

(3) The change in accounting policy has been retrospectively applied and segment information for the previous year has been retrospectively restated.

As a result, compared to the amounts before retrospective application, segment sales and segment income for fiscal 2015 increased by ¥1,185 million and ¥752 million in the Automotive Test Systems segment and by ¥222 million and ¥155 million in the Medical-Diagnostic Instruments & Systems segment, respectively.

At the same time, segment sales and segment income for fiscal 2015 decreased by ¥46 million and ¥17 million in the Process & Environmental Instruments & Systems segment, by ¥32 million and ¥10 million in the Semiconductor Instruments & Systems segment and by ¥311 million and ¥110 million in the Scientific Instruments & Systems segment, respectively.

(4) Information regarding income (loss), assets and other material items by reportable segment

		Millions of yen						
		12/2015						
		Automotive	Process & Environmental	Medical-Diagnostic	Semiconductor	Scientific	Adjustment	Consolidated
Sales								
Sales to outside customers.....		¥65,436	¥16,708	¥27,669	¥35,353	¥26,748	-	¥171,916
Intersegment sales and transfers.....		-	-	-	-	-	-	-
Total.....		65,436	16,708	27,669	35,353	26,748	-	171,916
Segment income (loss).....		¥5,200	¥1,756	¥2,558	¥9,429	¥1,197	-	¥20,142
Segment assets.....		¥72,843	¥15,782	¥23,820	¥33,775	¥23,463	¥62,435	¥232,121
Other items:								
Depreciation.....		2,183	519	1,343	1,172	745	-	5,964
Amortization of goodwill.....		53	-	-	-	92	-	145
Increase in tangible and intangible fixed assets.....		7,919	2,259	2,319	2,257	1,552	-	16,309

		Millions of yen						
		12/2016						
		Automotive	Process & Environmental	Medical-Diagnostic	Semiconductor	Scientific	Adjustment	Consolidated
Sales								
Sales to outside customers.....		¥62,207	¥16,753	¥26,564	¥38,828	¥25,738	-	¥170,093
Intersegment sales and transfers.....		-	-	-	-	-	-	-
Total.....		62,207	16,753	26,564	38,828	25,738	-	170,093
Segment income (loss).....		¥3,529	¥1,540	¥2,806	¥9,678	¥944	-	¥18,499
Segment assets.....		¥71,081	¥16,075	¥24,611	¥38,506	¥23,946	¥65,436	¥239,657
Other items:								
Depreciation.....		2,767	528	1,337	1,294	748	-	6,676
Amortization of goodwill.....		63	-	-	-	75	-	139
Increase in tangible and intangible fixed assets.....		7,227	1,336	1,308	2,029	1,894	-	13,796

		Thousands of U.S. dollars						
		12/2016						
		Automotive	Process & Environmental	Medical-Diagnostic	Semiconductor	Scientific	Adjustment	Consolidated
Sales								
Sales to outside customers.....		\$534,011	\$143,814	\$228,036	\$333,316	\$220,946	-	\$1,460,151
Intersegment sales and transfers.....		-	-	-	-	-	-	-
Total.....		534,011	143,814	228,036	333,316	220,946	-	1,460,151
Segment income (loss).....		\$30,294	\$13,220	\$24,087	\$83,080	\$8,103	-	\$158,803
Segment assets.....		\$610,189	\$137,994	\$211,271	\$330,551	\$205,562	\$561,730	\$2,057,318
Other items:								
Depreciation.....		23,753	4,532	11,477	11,108	6,421	-	57,309
Amortization of goodwill.....		540	-	-	-	643	-	1,193
Increase in tangible and intangible fixed assets.....		62,039	11,468	11,228	17,417	16,258	-	118,430

Note 1. Details of adjustment amounts are as follows:

(1) Unallocated amounts to be included in the adjustment amount of segment income were not generated.

(2) The adjustment amounts of ¥62,435 million and ¥65,436 million (\$561,730 thousand) of segment assets for the years ended 31, 2015 and December 31, 2016, respectively, represent corporate assets that are not allocated to any business segment.

They include cash and cash equivalents, short-term investments, investment securities, idle land, etc.

Note 2. Depreciation and increase in tangible and intangible fixed assets include long-term prepaid expenses and the amount of amortization associated with the expenses.

Note 3. Increase in tangible and intangible fixed assets for the year ended December 31, 2015 does not include an increase in fixed assets of ¥14,446 million due to the acquisition of the ECT business from MIRA Ltd.

<Related Information>

1. Information regarding geographic areas

(1) Net sales

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Japan.....	¥52,148	¥56,522	\$485,209
United States.....	27,022	24,521	210,498
China.....	20,677	19,892	169,044
Europe.....	40,919	38,337	329,101
Asia.....	24,894	25,270	216,928
Others.....	6,254	5,748	49,343
Total.....	¥171,916	¥170,093	\$1,460,151

Note 1. Net sales are categorized by country or geographic area based on the location of the customer.

Note 2. The "Asia" amount is that of the Asian region other than China.

(2) Property, plant and equipment

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Japan.....	¥27,933	¥29,359	\$252,030
France.....	6,682	6,534	56,090
United Kingdom.....	11,081	11,273	96,772
Others.....	11,281	14,809	127,126
Total.....	¥56,978	¥61,977	\$532,037

2. Information regarding major customers

There is no customer who represents more than 10% of the consolidated sales.

3. Information regarding impairment loss on fixed assets by reporting segment

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Medical-Diagnostic Instruments & Systems.....	¥170	-	-
Total.....	¥170	-	-

4. Information regarding the amortized amount and unamortized balance of goodwill by reporting segment

	Millions of yen		Thousands of U.S. dollars
	12/2015	12/2016	12/2016
Automotive Test Systems.....	¥272	¥173	\$1,485
Scientific Instruments & Systems.....	303	214	1,837
Total.....	¥576	¥387	\$3,322

Note. Information regarding the "Amortized amount of goodwill" is omitted as similar information is disclosed in "Segment Information."

5. Information regarding gain on bargain purchase by reporting segment

Not applicable.

19. Related party transactions

(1) Related party transactions with the Company

Directors and major shareholders (individuals only) of the Company

The year ended December 31, 2015

Category		Director's close family member	
Name		Masao Horiba	
Address		-	
Amount of capital stock (millions of yen)		-	
Business or occupation		Advisor	
Percentage of voting rights held		2.7% (direct)	
Relationship		Consulting contract	
Transaction	Transaction amount	Consulting fee (Note 2,3)	¥14 million
Account	Balance at December 31, 2015	-	-

The year ended December 31, 2016

Not Applicable

Note 1. The above transaction amounts do not include consumption taxes.

Note 2. Transaction conditions and policy on determining transaction conditions

The consulting fee for Masao Horiba is compensation for management consulting services to the Company, so valued on the basis of his background of long experience starting with the founding of the Company, and activities of society-academia collaboration for innovation and participation in economic organizations, as the representative of the Company. The payment was determined on a negotiated basis.

Note 3. As Masao Horiba passed away on July 14, 2015, the amount of transactions with him is for the period from January 1, 2015 to the date of his retirement.

(2) Related party transactions with consolidated subsidiaries of the Company that submitted consolidated financial statements

Directors and major shareholders (individuals only) of the Company

The year ended December 31, 2015

Category		Director's close family member	
Name		Masao Horiba	
Address		-	
Amount of capital stock (millions of yen)		-	
Business or occupation		Advisor	
Percentage of voting rights held		2.7% (direct)	
Relationship		Consulting contract	
Transaction	Transaction amount	Consulting fee (Note 2,3)	¥17 million
Account	Balance at December 31, 2015	-	-

The year ended December 31, 2016

Not Applicable

Note 1. The above transaction amounts do not include consumption taxes.

Note 2. Transaction conditions and policy on determining transaction conditions

The consulting fee for Masao Horiba is compensation for management consulting services to consolidated subsidiaries of the Company, so valued on the basis of his background of long experience starting with the founding of the Company. The payment was determined on a negotiated basis.

Note 3. As Masao Horiba passed away on July 14, 2015, the amount of transactions with him is for the period from January 1, 2015 to the date of his retirement.

20. Subsequent events

(Transfer of the water quality and liquid analysis instruments and systems business through simplified absorption-type corporate split)

The Company had HORIBA Advanced Techno, a wholly owned subsidiary of the Company, take over its water quality and liquid analysis instruments and systems business (hereinafter the “water measurement business”) through absorption-type corporate split approach, effective January 1, 2017.

The absorption-type corporate split is summarized as follows.

(1) Purpose of the corporate split

The HORIBA Group’s water measurement business, represented by pH meters, the Group’s mainstay product since the foundation of the Company, had been promoted jointly by the Company and HORIBA Advanced Techno. With the aim of business expansion in the water measurement area, as one of the priority initiatives in the HORIBA Mid-Long Term Management Plan, the Company separated its water measurement business division and integrated it with HORIBA Advanced Techno in order to develop more market-oriented products, improve customer satisfaction, and enhance market competitiveness and earnings power.

(2) Corporate split method

This corporate split is an absorption-type corporate split in which HORIBA Advanced Techno is the succeeding company.

(3) Effective date

January 1, 2017

(4) Details of allotments relating to the corporate split

The Company owns all shares of HORIBA Advanced Techno and there is no consideration such as allotment of shares or payment of cash due to this corporate split.

(5) Calculation of allotments relating to the corporate split

There are no allotments of shares or other assets due to this corporate split.

(6) Rights and obligations to be succeeded by the successor company

In accordance with the absorption-type corporate split agreement, HORIBA Advanced Techno shall succeed to assets, liabilities, other rights and obligations, and contractual status that are considered necessary to carry out the business.

(7) Outline of the successor company

Capital: ¥250 million

Business: Development, manufacturing, sales and services of measurement equipment

(8) Outline of accounting treatment to be applied

Based on the “Accounting Standard for Business Combinations” and the “Guidelines on Accounting Standard for Business Combinations and Accounting Standard for Business Divestitures,” this transfer is to be treated as a transaction under common control.

Independent Auditor's Report

To the Board of Directors of HORIBA, Ltd.:

We have audited the accompanying consolidated financial statements of HORIBA, Ltd. and its consolidated subsidiaries, which comprise the consolidated balance sheet as at December 31, 2016, and the consolidated income statement, statement of comprehensive income, statement of changes in net assets and statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the objective of the financial statement audit is not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of HORIBA, Ltd. and its consolidated subsidiaries as at December 31, 2016, and their financial performance and cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Emphasis of Matter

Without qualifying our opinion, we draw attention to Note 1 to the consolidated financial statements, which describes that HORIBA, Ltd. and its domestic consolidated subsidiaries have changed the revenue recognition method.

Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended December 31, 2016 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 to the consolidated financial statements.

KPMG AZSA LLC

March 27, 2017
Kyoto, Japan

Corporate Information

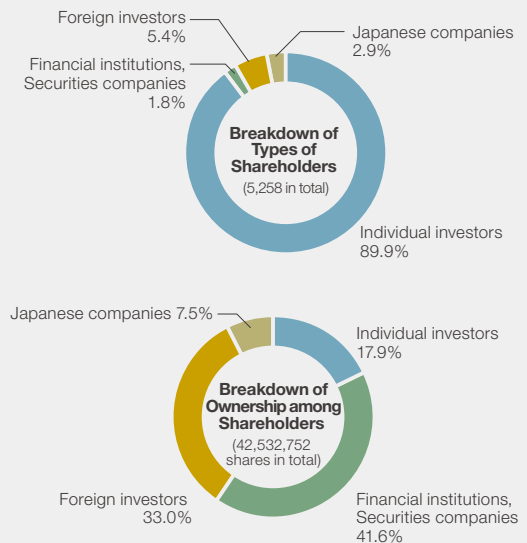
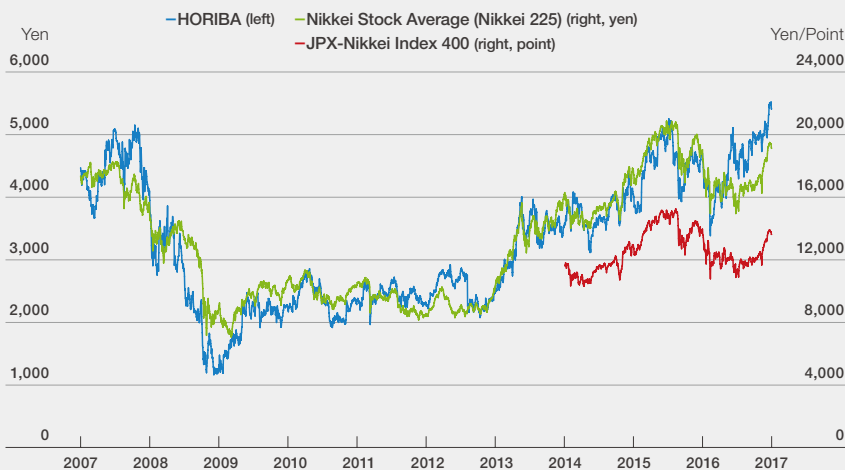
Head Office	2, Miyanohigashi-cho, Kisshoin, Minami-ku, Kyoto 601-8510, Japan	
Founded	October 17, 1945	
Incorporated	January 26, 1953	
Net sales	¥170,093 million (Consolidated)	Fiscal 2016
Paid in Capital	¥12,011 million (Consolidated)	As of December 31, 2016
Number of Employees	7,149(Consolidated)	As of December 31, 2016
Fiscal Closing Date	December 31, annually	
Annual Meeting of Shareholders	Held in March	
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited	
Independent Auditor	KPMG AZSA LLC	
Stock Listings	Tokyo Stock Exchange, First Section Securities Code: 6856	

Major Shareholders

As of December 31, 2016

Name of Shareholders	Shares (Thousands)	Percentage (%)
Japan Trustee Services Bank, Ltd.	3,108	7.31
The Master Trust Bank of Japan, Ltd.	2,232	5.25
National Mutual Insurance Federation of Agricultural Cooperatives	1,287	3.03
Atsushi Horiba	1,128	2.65
NATIXIS JAPAN SECURITIES Co., Ltd	1,067	2.51
The Bank of Kyoto, Ltd.	828	1.95
THE KYOTO CHUO SHINKIN BANK	794	1.87
HORIBA Raku-Raku Kai	784	1.84
NORTHERN TRUST CO.(AVFC) RE EXEMPT UK PENSION FUNDS	700	1.65
BNP PARIBAS SECURITIES SERVICES PARIS /JASDEC FRENCH RES/UCITS ASSETS	699	1.65

Stock Price Trend



HORIBA's corporate motto

“Joy and Fun”

Originates from the belief that if we take interest and pride in the work that occupies most of the active time in our lives, in the place where we spend the large part of each day, then as a result our satisfaction with life will increase, and we will be able to enjoy our lives even more.

Taking interest and pride in our work leads us to “Joy and Fun.”

Business Operations

At HORIBA, our mission is to contribute to the progress of science and technology, and the preservation of the global environment and resources through the provision of highly original products, analytical and measurement solutions, and engineering services that utilize our world renowned measurement and analytical technologies. We are engaged in the fields of engine emissions, scientific analysis, industrial and process measurement, environment monitoring, semiconductor process control, medical and health-care, and biotechnology. The new businesses and new products we may initiate shall also satisfy our aim to develop scientific technology, improve the life of the community, and minimize the impact on the environment. We put priority on ensuring a safe business environment and strictly abide by applicable laws, regulations, and our articles of incorporation. We have established and adopted a quality management system and environmental preservation system. We strive to deliver high value-added products and services in the shortest possible time to customers all over the world while combining the unique development, production, sales, and service functions of all HORIBA Group companies throughout the world. We aim to be a leader in the global market in the fields in which we operate by consistently satisfying our customers' needs and effectively maximizing our resources through investments in the carefully selected fields.

Customer Responsiveness

We maintain a philosophy of pursuing cutting edge technology in order to supply products and services that consistently satisfy customers' requirements. We are committed to offering top-quality, highly reliable products and services with a consistent level of excellence throughout the world. Meanwhile, we strive to understand the true needs of customers and proactively propose solutions.

Responsibility to Shareholders and Investors

We recognize that maximizing the returns to shareholders by consistently raising HORIBA's long-

term corporate value is one of the priority objectives of management. Our basic policy is to target total returns (the combination of dividend payments and share buybacks) to shareholders to be at a certain ratio of HORIBA's consolidated net income, and consistently deliver them. In addition, we are committed to create opportunities for constructive dialogues with investors and stakeholders, regularly reporting our operating performance, fairly and promptly disclosing information whenever an important business or managerial issue arises, and maintaining transparency in our management. HORIBA Group companies, having adopted a unified accounting standard and system and a common information base, shall maintain a timely and responsive management control system. The managements of group companies also share responsibility in generating profit, delivering dividend payments, establishing and managing the internal control system, and developing human resources.

Employees

We are proud of the entrepreneurial spirit that has led to the creation of HORIBA Group companies. Each group employee is made aware of this heritage and we actively encourage ideas and innovations from individual employees. HORIBA promotes an open and fair business environment, with attention to safety and health, which allows all group employees to achieve their individual goals and maximize their talents and potential. We strive to foster an environment of mutual respect so that diverse talents and viewpoints can flourish. At the same time, to further everyone's personal and professional growth, we encourage intercultural understanding and thinking from a global perspective. We create a work environment for employees to achieve their growth potential and exert their talents to the maximum by accelerating diversity management and expanding our international core human resources development and exchange program. The basis of our performance evaluation is the merit count principle, (not the demerit mark principle), as we value each and every employee who makes efforts to improve his or her performance with a challenging spirit.

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HORIBA Report 2016

HORIBA Report Booklet



This booklet summarizes primarily HORIBA's business activities and financial information, along with "Invisible Values" such as talents and technologies.

"To Our Stakeholders" Website



This website provides the detailed information including the HORIBA Report web data collection, which features HORIBA's safety and environmental activities, contribution to the society, and other information.
<http://www.horiba.com/to-our-stakeholders/>



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