



HORIBA Report 2017

| Year ended December 31, 2017 |

Omoshiro-okashiku
Joy and Fun





HORIBA



Everything begins with
measurement



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.**

Global growth through M&As

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.”

1945 HORIBA RADIO LABORATORY was established.

1950 HORIBA pioneers the first made-in-Japan glass electrode pH meters.

1953 HORIBA, Ltd. was established.

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).

1988 HORIBA Korea Ltd. was established in South Korea.

2002 HORIBA Instruments (Shanghai) Co., Ltd. was established in China.

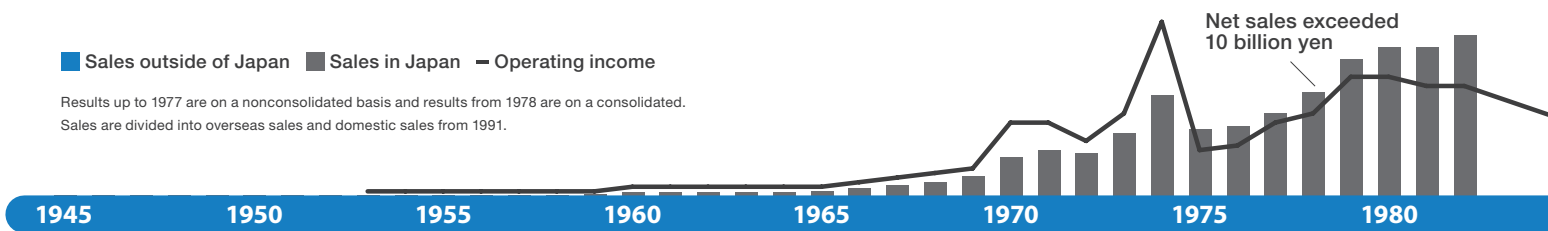
1996 ABX S.A. (now HORIBA ABX SAS) was acquired in France.

1997 Jobin Yvon S.A. (now HORIBA FRANCE SAS) was acquired in France.

2005 MCT (Mechatronics) business of Carl Schenck AG was acquired in Germany.

■ 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.



Net sales
195.3
billion yen

Sales outside
of Japan
130.3
billion yen

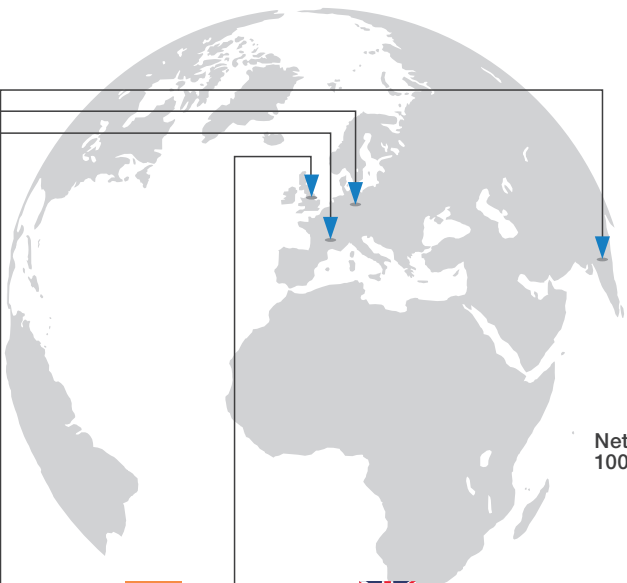
Operating
income
26.8
billion yen

Sales in
Japan
65.0
billion yen

Net sales exceeded
150 billion yen

Net sales exceeded
100 billion yen

Net sales
exceeded 50 billion yen



2014

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



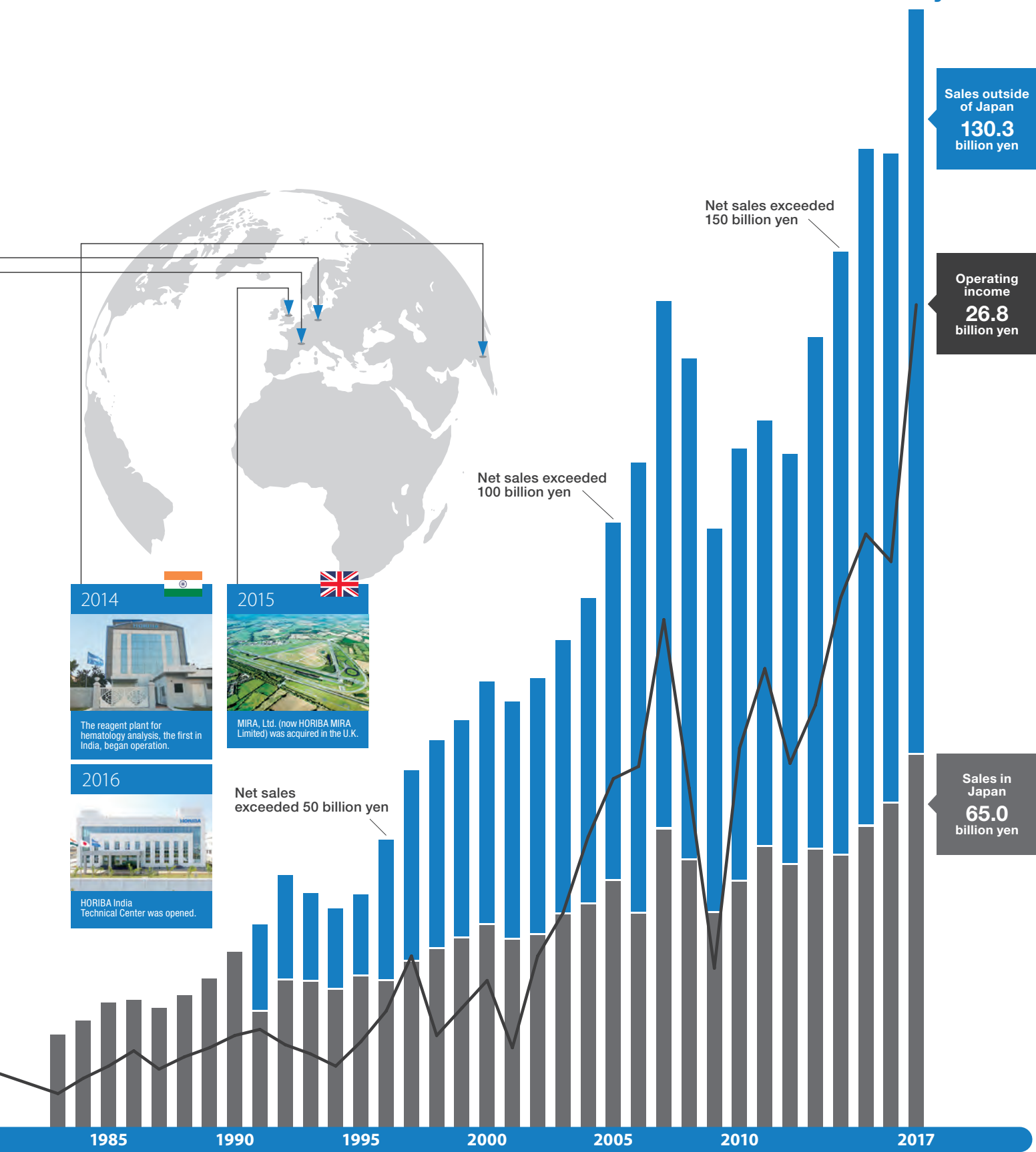
2015

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



2016

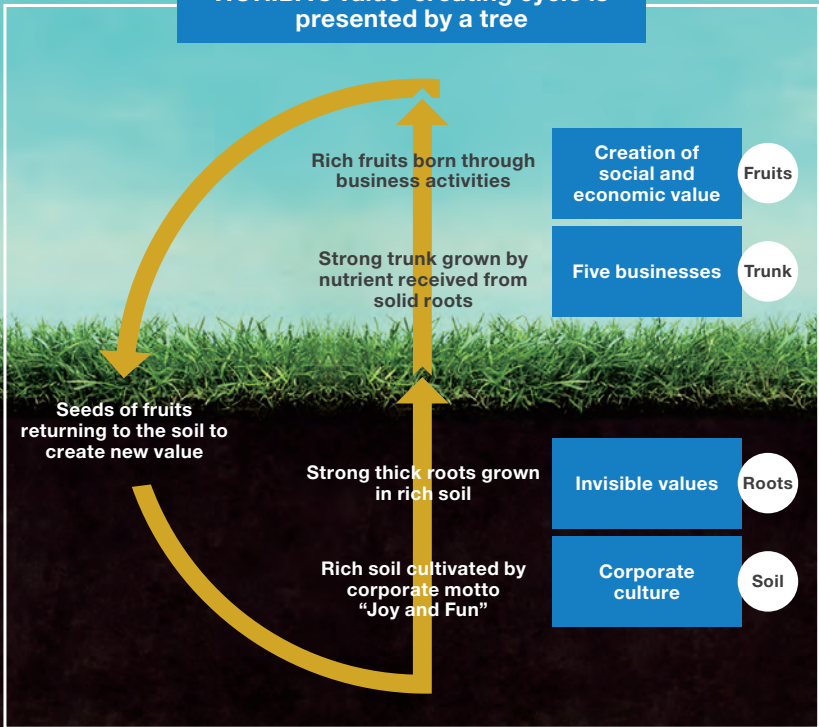
HORIBA India Technical Center was opened.





HORIBA's value-creating cycle

HORIBA's value-creating cycle is presented by a tree



Creation of economic value

Global business making and selling more than 1,000 products of various kinds

Top-level shares in niche markets

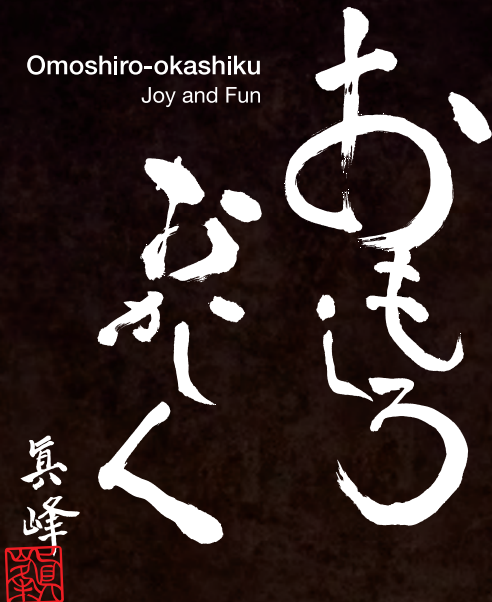
Profit generated year after year
(maintaining an operating margin of around 10%)
See details, pages 7 and 8.

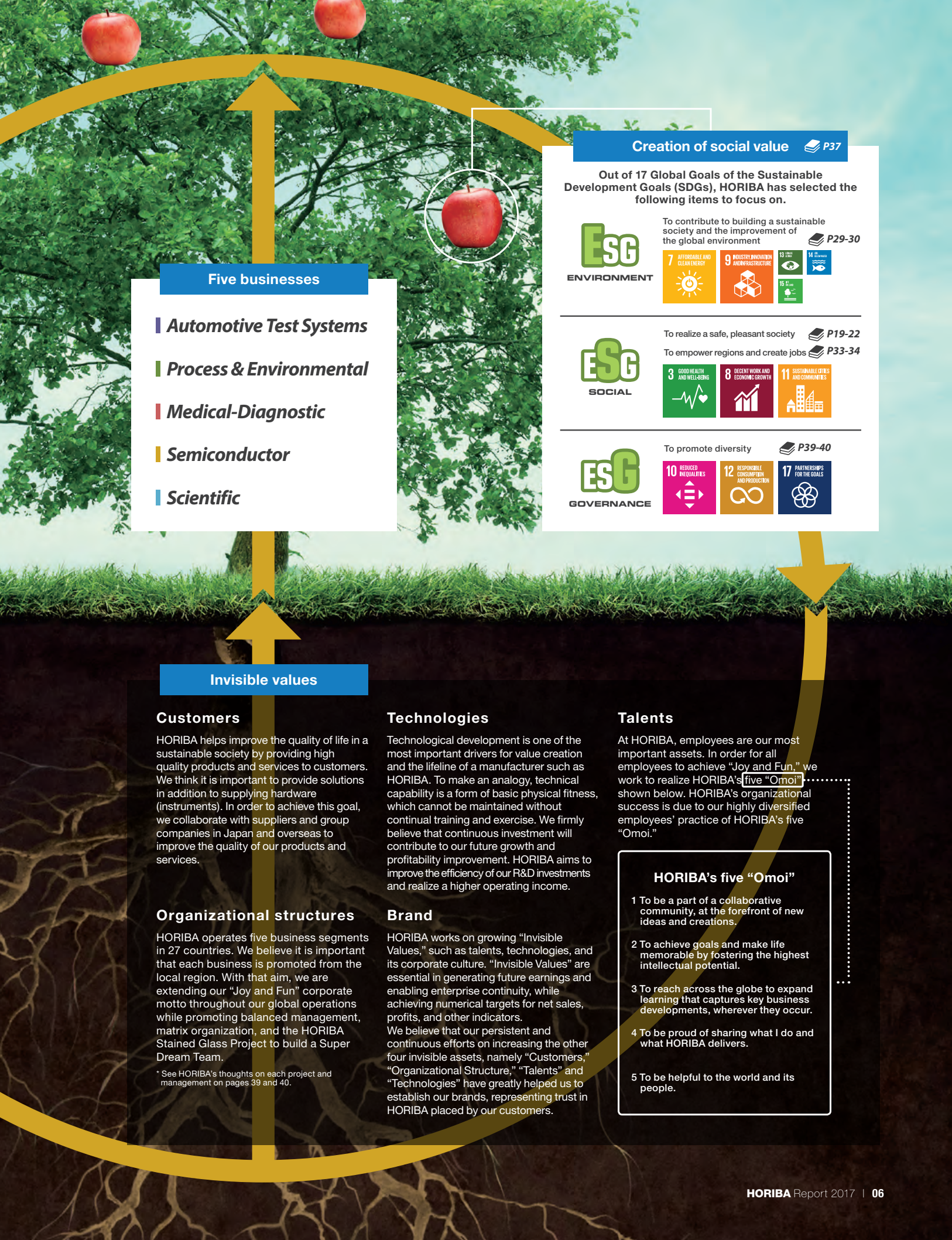


Business growth supported by continuous investment

Corporate culture

Omoshiro-okashiku
Joy and Fun





Five businesses

- Automotive Test Systems**
- Process & Environmental**
- Medical-Diagnostic**
- Semiconductor**
- Scientific**

Invisible values

- Customers**
HORIBA helps improve the quality of life in a sustainable society by providing high quality 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.
- 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. We firmly believe that continuous investment 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.
- 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."
- 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.
- 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.

* See HORIBA's thoughts on each project and management on pages 39 and 40.

Creation of social value P37

Out of 17 Global Goals of the Sustainable Development Goals (SDGs), HORIBA has selected the following items to focus on.

ESG ENVIRONMENT

To contribute to building a sustainable society and the improvement of the global environment P29-30

- 7 AFFORDABLE AND CLEAN ENERGY
- 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
- 13 CLIMATE ACTION
- 14 LIFE BELOW WATER
- 15 LIFE ON LAND

ESG SOCIAL

To realize a safe, pleasant society P19-22

To empower regions and create jobs P33-34

- 3 GOOD HEALTH AND WELL-BEING
- 8 DECENT WORK AND ECONOMIC GROWTH
- 11 SUSTAINABLE CITIES AND COMMUNITIES

ESG GOVERNANCE

To promote diversity P39-40

- 10 REDUCED INEQUALITIES
- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
- 17 PARTNERSHIPS FOR THE GOALS

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.

1

Corporate culture

Corporate motto "Joy and Fun"

We believe that if we take interest and pride in the work that occupies so much of our lives, and for many of us where we spend a large part of each day, then as a result our satisfaction with life will increase, and we will be able to enjoy our lives more.

Omoshiro-okashiku
Joy and Fun



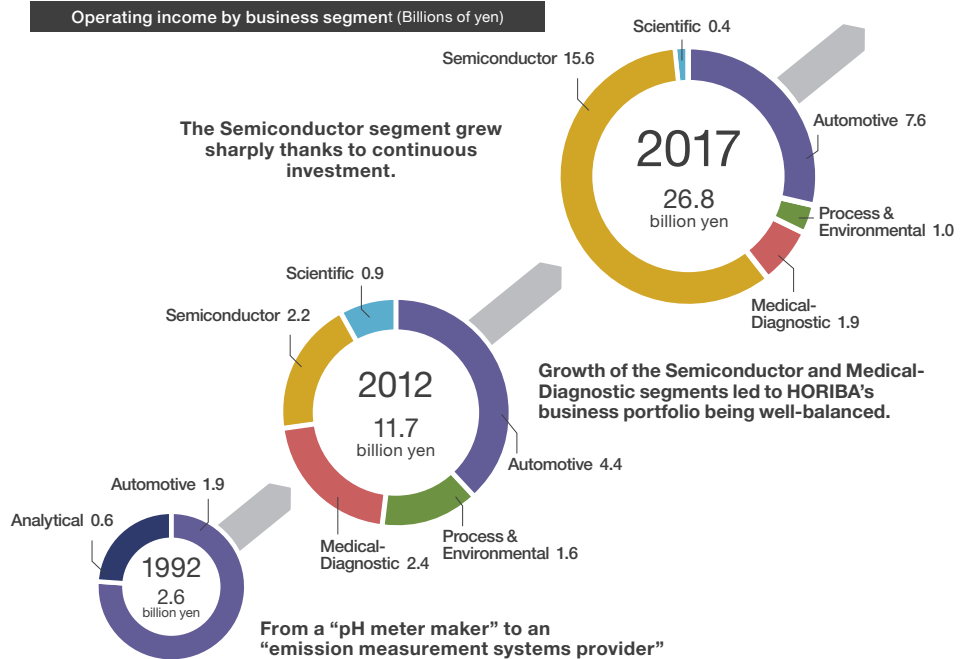
HORIBA's

2

Balanced management

Sustainable growth with well-balanced investment in five business segments

HORIBA is an analytic and measurement equipment manufacturer with five business segments: Automotive Test Systems, Process & Environmental, Medical-Diagnostic, Semiconductor, and Scientific Instruments and Systems. After launching our first product, the pH meter, we expanded our business field by developing emission measurement systems. Even during the global financial crisis in 2008, we continued investment, which resulted in the strong growth of the Semiconductor segment which has become our largest source of income.



HORIBA's main Key Performance Indices (KPIs) for 2017	Net sales	195.3 billion yen	Operating income	26.8 billion yen	Operating income to net sales	13.7 %

Main global M&A



Medical-Diagnostic

1996

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



Scientific

1997

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



Automotive Test Systems

2005

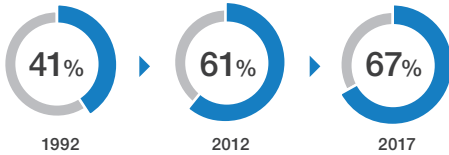
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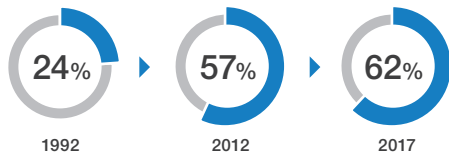
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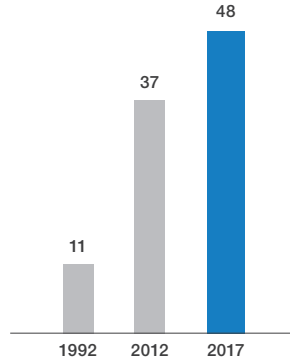
Overseas sales ratio



Overseas employee ratio



Number of group companies



3

HORIBA style global management

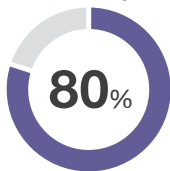
Spreading the culture of Kyoto around the world

HORIBA got its start in Kyoto with a venture spirit. 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. Since the late 1990's, HORIBA has expanded its business scale and geographic scope through M&A. At present, over 60% of sales and employees are based outside of Japan. As our business in Japan has continued to grow, much of our international growth has come through M&A.

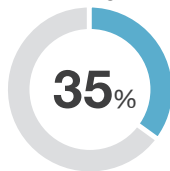
4 points of distinction

Global market shares of major products (Estimated by HORIBA)

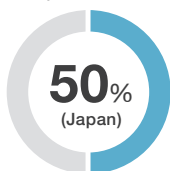
Emission measurement systems



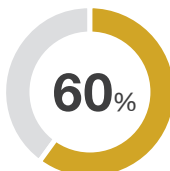
Gratings



pH meters



Mass flow controllers



4

Development-oriented company

Launched products in various niche markets of analysis and measurement services

HORIBA does business in many different markets, providing over 1,000 products in five business segments. Products with a global leading market share include HORIBA's first product, the pH meter; emission measurement systems, which are indispensable to automotive development; gratings developed and manufactured by HORIBA FRANCE SAS with a history of 200 years; and mass flow controllers needed in semiconductor manufacturing.

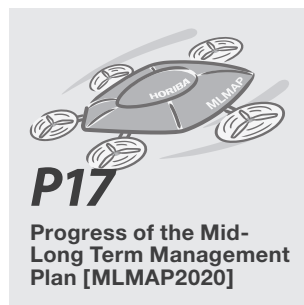
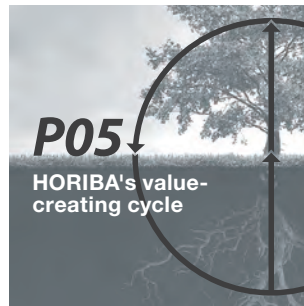
ROE	11.5 %	Shareholders' equity ratio	56.5 %	R&D expenditures to net sales	7.1 %	Number of employees (as of December 31, 2017)	7,399
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Editorial policy

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 2017” 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."

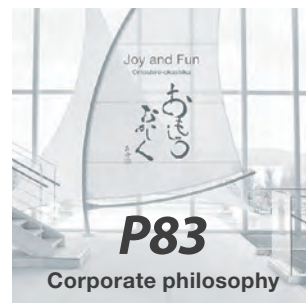
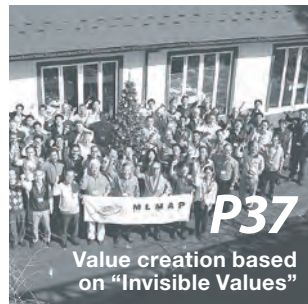
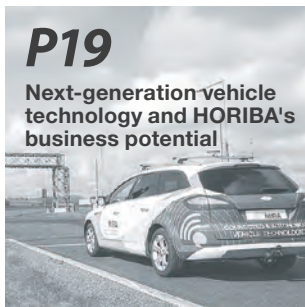
Disclaimer Regarding Future Plans and Forecasts

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 13, 2018 when business results were announced. Actual performance may differ due to unforeseen circumstances in the operating environment.

Change in revenue recognition standard

HORIBA, Ltd. and its domestic consolidated subsidiaries had formerly recognized revenue mainly on a shipping basis. However, starting from the fiscal 2016, HORIBA, Ltd. and its domestic consolidated subsidiaries changed its revenue recognition method to recognize revenue on a completion date of installation basis or a delivery date basis under the terms and conditions of the relevant contracts. The amounts in or before the fiscal 2015 are not retrospectively revised.

Market shares stated in this report are HORIBA's estimates for fiscal 2017.



HORIBA will sprint to its next stage, keeping up with the changes in the world with the spirit of “Joy and Fun”

Chairman & Group CEO



Photo taken at the HORIBA BIWAKO E-HARBOR Biwako Factory

Since its founding 73 years ago, HORIBA has been working at solving social issues through its core business, “Measurement Technologies.” We now have a new management team focused on responding to the requests from our customers and society and seeking to raise our corporate value while navigating the rapid changes in every area of technology.

Operating under a new management team starting in 2018

From January 1, 2018, a new management team took charge, with myself as Chairman & Group CEO, Juichi Saito as Executive Vice Chairman & Group COO, and Masayuki Adachi as President & COO. Under the new structure, Mr. Saito and I will lead the overall HORIBA Group, while Dr. Adachi will lead HORIBA, Ltd. as the headquarters. (See pages 15 and 16.)

There are two main reasons behind this change in management structure.

First is the expansion of our group. 26 years have passed since I was appointed as President in 1992. We have acquired many companies and have grown our business globally, making clear the importance of management of the overall group. Going forward, in addition to management of group companies, which now are the core of HORIBA's business, I am shifting my priority to take the reins of the entire group in order to make HORIBA's corporate culture of “Joy and Fun” well known and embedded in growing regions -- operations that will support our future growth. Executive Vice Chairman & Group COO Mr. Saito will in effect lead HORIBA's operation by planning and implementing management and business strategies on a global level.

The second reason is to enhance our technologies. HORIBA has established a business model of globally manufacturing a wide variety of products in small quantities by expanding diverse applications. We will not change this approach.

However, we also need to enhance our basic technological capabilities to flexibly cope with emerging needs. President Adachi is well suited to lead initiatives to utilize resources across the boundaries of business divisions and enhance technology, as he possesses a wide range of technical knowledge and has accumulated experience in managing group companies.

We have been posting favorable financial results. That is all the more reason that I believe we need to be bold in our deliberate advance as a company. We are committed to move ahead to achieve further growth under the new management team.

Proactively facing the changing trends in the automotive industry and contributing to development of next-generation technologies

The automotive industry is now facing a so-called once-in-a-century paradigm shift. Reflecting the increase in the number of electric vehicles and the development of autonomous driving technology, a broad range of businesses that do not fall into conventional categories are emerging. They include specialized firms working on vehicle battery and increasing number of semiconductors, on more-efficient systems for charging and generating power. HORIBA MIRA Limited (U.K.), which we acquired in 2015, has abundant resources and accumulated skills concerning autonomous driving technology and development of batteries for electric vehicles, as well as provision of diverse verification and testing services. We also offer a full line-up of measurement equipment and devices of all kinds for hybrid or plug-in hybrid vehicles that combine an engine and a battery, and we have a firm experiences in this regard. Moreover, we can fulfill needs for analysis and evaluation in work on developing batteries, by using products in our Scientific Instruments & Systems segment. We will contribute to the development of next-generation automotive technologies from all directions by use of technologies beyond the boundaries of business segments. (See our detailed discussions on this initiative, from page 19 to page 22.)

Accelerating business with “Timing, Speed, and Perseverance” as keywords

“Timing, Speed, and Perseverance” are all indispensable elements in responding to the ongoing diverse and significant changes in society.

Let me start the discussing with “Timing.” The HORIBA BIWAKO E-HARBOR celebrated its first anniversary in May 2017. As the factory has been operating at high levels, we may not have been able to fulfill the needs of our customers if there were even a slight delay in our decision making or the start-up. In hindsight, the acquisition of HORIBA MIRA, which has strong capabilities in next-generation automotive technology, may not have taken place if we had not heeded the dramatic change in the automotive industry. I therefore feel strongly that timing in making investment decisions is so important.

Next is “Speed.” Even golfers with small bodies can hit a ball for a long distance not only due to power and speed, but also to the contribution from the accelerating speed of the head of a golf club. I think there is similarity with corporate management. In October 2017, shortly after the announcement of a new product launch, HORIBA ABX SAS (France) entered into a long-term agreement with Siemens Healthcare Diagnostics Inc. (U.S.) that created a dynamic



Atsushi Horiba
Chairman & Group CEO

Masayuki Adachi
(Dr. Engineering)
President & COO
Chairman of supervisory board of
HORIBA FRANCE SAS

Takashi Nagano
Director (Board Leader of
GLOBAL ATS BOARD)
Chairman of HORIBA Korea Ltd.
(South Korea)



Juichi Saito
Executive Vice Chairman
& Group COO

Masao Okawa
Managing Director
General Manager of General
Administration Division

Jai Hakhu
(Dr. Engineering)
Executive Corporate Officer
Chairman & CEO of HORIBA
Instruments Incorporated (U.S.)
President of HORIBA ABX SAS
(France)

change in the aspects of sales and marketing. I believe that such speedy business development inspires the entire HORIBA Group. (See details on the agreement with Siemens Healthcare Diagnostics Inc., pages 31 and 32.) Last is “Perseverance.” Our BlackJack Project, having the objective of improving operational efficiency by encouraging improvements at the workplace, celebrated its 20th anniversary in 2017. The project is embedded in our corporate culture and I would even say that it has supported our present strong operating results. In 2014, we launched the HORIBA Stained Glass Project. Its mission is to make HORIBA stronger by the continual creation of new value through diverse talents and skills. We are promoting more diversity in our workforce including work style renovation as a basis for management. I am expecting that continuance of these projects will also lead us to sustainable growth. (See details on the BlackJack Project and the HORIBA Stained Glass Project, pages 39 and 40.)

Working on the expansion of product supply

At the end of December 2017, the HORIBA STEC Aso Factory in the Semiconductor Instruments & Systems segment completed construction for its largest expansion to

date. In the midst of accelerating technology innovation, I believe delivery of “what customers need, time-wise, quantity-wise, and quality-wise” products shall make a decisive influence on competitiveness of companies. In addition to our production capability, a long-accumulated relationship of trust with subcontractors and distributors is becoming increasingly valuable. Indeed, we may now enter into a period when the value of a “manufacturing companies” can be appreciated. We will continue to invest proactively to enhance our supply capacity, and automation.

Record-high earnings targeted in 2018

In 2017 (ended December 31, 2017), HORIBA recorded consolidated net sales of 195.3 billion yen (up 15% year-on-year) and operating income of 26.8 billion yen (up 45% year-on-year). This was driven by strong results of the Semiconductor Instruments & Systems segment and the Automotive Test Systems segment.

In 2018, we are targeting another year of record-highs both in sales, at 210.0 billion yen (up 7% year-on-year), and in operating income, at 29.0 billion yen (up 8% year-on-year),* mainly driven by the Semiconductor Instruments & Systems segment and the Automotive Test Systems segment, but

three other segments in Process & Environmental Instruments & Systems, Medical-Diagnostic Instruments & Systems, and Scientific Instruments & Systems are also expected to increase both sales and operating income compared to the previous year.

* Forecasts announced on February 13, 2018

Enhancing our “Invisible Values” to accelerate growth

HORIBA has been investing in the hiring and development of talented people, in R&D, and in facilities and equipment during economic ups and downs. It is increasingly important to keep investing in order to respond to the rapid technological changes we are now experiencing in many industries. HORIBA can afford to keep investing from a long-term perspective, as we adhere to a balanced management and matrix organization (see pages 39 and 40) in different regions and business areas with different economic cycles. This has led to increased trust from our business partners around the world and will ensure growing prominence of the HORIBA brand globally.

In 2011 we signed the United Nations Global Compact. We ensure that when we conduct business we are well rooted in each country and region, are working closely together with local employees, and understand the relevant diverse cultures, customs and values.

In keeping with the corporate philosophy of “Open and Fair,” HORIBA has three outside directors, who have diverse

experience and unique insights, and who actively participate in the board meetings and contribute to enhance HORIBA's corporate value. (See details on corporate governance and a message from an outside director, from page 43 to page 48.) By refining our “Invisible Values” of diverse kinds, we will create economic values and the same time contribute to achieving some of the Sustainable Development Goals (SDGs) advocated by the United Nations, which are relevant to HORIBA. (See details on value creation on pages 5 and 6.)

On a personal note, I hurt an ankle at the end of 2016 and had to spend an inconvenient time confined to a wheelchair or with crutches for over a half year. I felt pain in areas other than the injured ankle and experienced physical disorders. I am fortunate enough to have completely recovered by now but I learned an important lesson that a slight problem, if you let it slip by, could end up as a major setback. I believe this could apply to HORIBA's management. Now, even with our recent and current strong business performance, it still is the time we have to do our work with utmost caution every day, at the same time we take up big challenges. 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 “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 on a road toward a prosperous future.

Chairman & Group CEO **Atsushi Horiba**



Aiming for further growth — Kick-off of the new management team —

On January 1, 2018, HORIBA's new management team was put in place. During the 26 years since 1992, Atsushi Horiba, as president, led HORIBA to use M&A opportunities and expand globally. As our business has grown, overall group management has become increasingly important. Against such a background, the new management team will work on enhancing management capability to respond to challenges, with the aim of achieving further growth.

Objectives of the new management team

- Enhancing group management effectiveness
- Clarifying group management structure
- Strengthening technology and development capabilities of HORIBA, Ltd. as the group headquarters



Press conference on the announcement of a new management structure (October 24, 2017)

	From January 1, 2018	Previous title	Role of a new position
Atsushi Horiba	Chairman & Group CEO	Chairman, President & CEO	Control the entire group through enhancement of governance and firmly establishing corporate culture throughout the group
Juichi Saito	Executive Vice Chairman & Group COO	Executive Vice President	Control the entire group and lead specific strategies
Masayuki Adachi	President & COO	Senior Managing Director	Focus on management of HORIBA, Ltd. and enhance its function as headquarters

Policy statements of the new management team

Decisively implementing aggressive management and developing next-generation managers

Juichi Saito
Executive Vice Chairman & Group COO



Taking up a challenge to establish a “true technology-oriented company” by enhancing technological capabilities

Masayuki Adachi (Dr. Engineering)
President & COO



HORIBA has expanded its scale by continuously investing in human talent, technology, and manufacturing for many years and by boldly pursuing M&As with excellent foresight. Undoubtedly each and every one of these decisions has contributed to the favorable operating performance today. In order to now achieve further growth, continual aggressive investment is a must-do. I am committed to making bold decisions and promoting the HORIBA Group's strategy, so that we can prevail globally, including attaining success in rapidly-growing China, India, and other emerging markets.

In the meantime, human talent for next-generation management is also critically important. In my view, experience is the key to refine potential talent for managerial roles. I will seek to create a scheme for “personally visible investment” in which each responsible manager thinks throughout a range, from reasons for investment up to how to garner returns, make proposals, and execute them, adhering in all this to the HORIBA Premium Value policy adopted this year. (See details, pages 17, 18, 23, and 24.) This is how I will tackle the challenge of developing human talent or managers for the future of HORIBA.

Upon assuming position as president, I understand my vital mission is to lead HORIBA, Ltd. as the headquarters of the HORIBA Group and to strengthen its technical value. While the environment surrounding us is changing rapidly, it also presents growth opportunities for us. Having whatever the changes to come, such as the paradigm shift in energy and environment, HORIBA can continue providing comprehensive solutions applying its wide range of technologies from five business segments.

Refining core technologies are required to enhance application capabilities. Sophisticated basic technology should allow us to generate cycles wherein we flexibly respond to changes in the market by creating new applications. I am confident that this will ultimately make us a “true technology-oriented company.” Keeping my pride and passion as an engineer, I will dedicate my strength and heart to my mission of further accelerating HORIBA's growth, which was established under the previous management.

Masahiro Sugita, Outside Director's views on the new management team

How the new president was appointed

Since being appointed as a director in 2014, Dr. Adachi has been proactive in making proposals about the future of HORIBA at the Board of Directors meetings. He demonstrated his outstanding ability and capacity as a manager from early on. In addition to leading development as an engineer with profound insight and knowledge, he has also delivered results in managing group companies. I thus believe that he has an excellent sense of balance.

Since joining HORIBA, Ltd., Dr. Adachi has consistently been engaged in technical areas. He was involved in development of some major products, which are supporting HORIBA today, and at the same time he managed to balance work with academic study and earned a doctorate, with an unwavering attitude of constantly advancing himself. While he was managing group companies in the U.S. and France, he did not impose his way of thinking or working on local employees. Rather, based on his insights and skills, which are supported by ample experience, he convinced them of what is best to do, and boosted operating results.

Indeed, the DNA of HORIBA, that treasures technology in developing its global business, has been inherited by Dr. Adachi. I am convinced that he is fully qualified and appropriate to represent HORIBA. When his name was raised as a candidate for president, the Board of Directors unanimously approved him.

My hope for the new management team

I look forward to Mr. Horiba and Mr. Saito representing and managing the HORIBA Group, which will continue to expand its scale, and promote its corporate culture and overall strategy to employees in the group. Similarly, I expect Dr. Adachi to strengthen HORIBA, Ltd. from a technology and organizational standpoint and to raise the level of the group.

In addition to these three leaders, HORIBA has plenty of potential next-generation leaders with a diversity of talent. In order for such talented managers to make open, active discussions and create a stronger HORIBA, I am determined to use the best of my ability by actively participating in the Board meetings and through other means.

Masahiro Sugita
Director (Outside)

Masahiro Sugita joined the Bank of Japan in 1967 and held positions such as Branch Manager, Director-General of the International Department, and Auditor. He also has ample management experiences. He has been a director of HORIBA, Ltd. since 2006.



Human talent for management of the future HORIBA

Invisible assets that support HORIBA's business growth have been established by each and every employee, our most important resource. At the same time, talent on the management side is indispensable in managing employees and leading them in the right direction. Looking forward for growth in the next generation, we are working hard to develop candidates for management.

HORIBA's thoughts on promoting and developing candidates for management

1 Embody the "Joy and Fun" spirit.
= Always take up challenges and stay passionate.

2 Have business management experience and deliver results.
= Have a good sense of balance as a manager

3 Have confronted top-level customers globally
= Exert management capability at HORIBA which operates business in 27 countries.

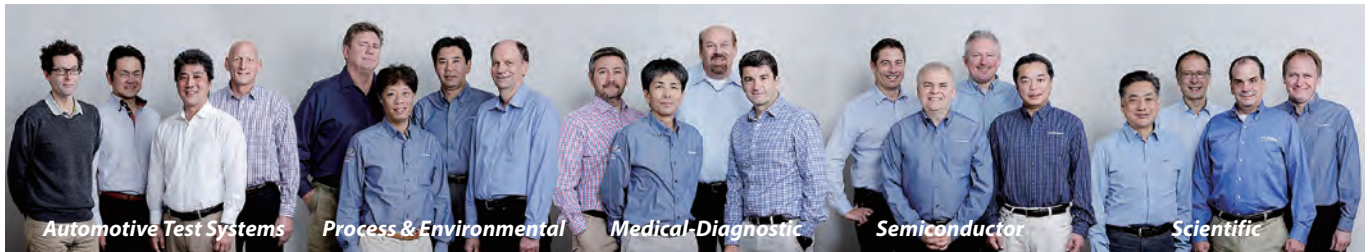
Promotion:
Features to
look for

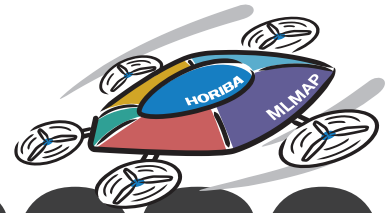
Development:
Things to
keep in mind

1 Highly evaluate people who raise their hands and indicate what they want to do.
= Give equal opportunities to challengers, young or veteran.

2 Let people experience failures.
= Challenging experiences are good for developing human resources. Failures make people sharper as managers.

Leaders of each business segment, driving HORIBA's business





Progress of the Mid-Long Term Management Plan

MLMAP2020

Mid - Long Term Management Plan

During 2017, the second year of the Mid-Long Term Management Plan, MLMAP2020, HORIBA made a great step toward achieving the plan targets, thanks to a significant growth in the Semiconductor Instruments & Systems segment. Challenges remain in achieving progress in net sales and operating income of other segments toward their targets. We recognize a need to speed up the improvement of those businesses.

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

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

Net sales

250 billion yen

Results in 2017: 195.3 billion yen

Operating income

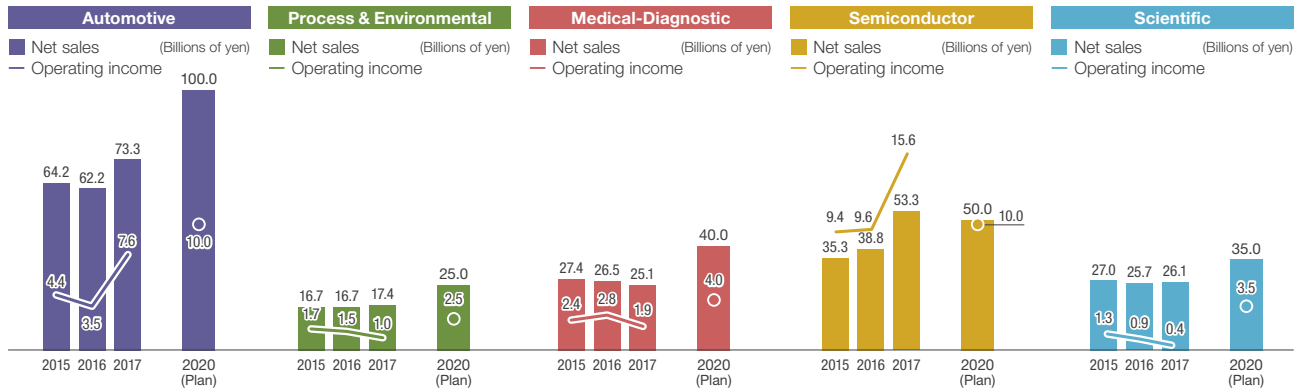
30 billion yen

Results in 2017: 26.8 billion yen

R O E

10% or more

Results in 2017: 11.5%



New developments in 2017

Automotive

HORIBA MIRA's investment in next-generation automotive development; Improvement of production efficiency at the HORIBA BIWAKO E-HARBOR; Opening of a technical center in India

Process & Environmental

Opening of a new base for the process measurement equipment business in North America; Organizational restructuring of water-related business

Medical-Diagnostic

New product launches in Japan and France; Signing of a long-term large-scale partnership agreement

Semiconductor

Aso Factory expansion; Expansion of global sales and service network

Scientific

New product development for a new market (bio-life science)

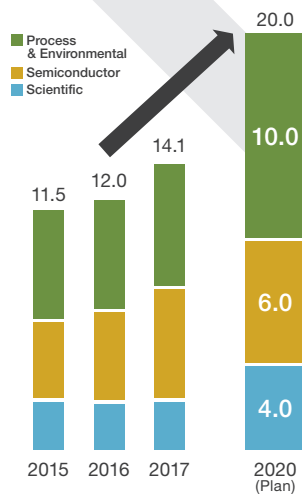
1

Accelerating global growth of water measurement business

HORIBA aims to expand the water measurement business by utilizing the water-related analysis and measurement technology and sales networks of three business segments (the Process & Environmental, Semiconductor, and Scientific Instruments & Systems segments).

Resources in Japan has been integrated in HORIBA Advanced Techno Co., Ltd. in January 2017 so as to enhance water measurement technology and service and support networks. In January 2018, Dan Horiba, who led HORIBA's business in the U.S. as President of HORIBA Instruments Incorporated (U.S.), was appointed as President of HORIBA Advanced Techno Co., Ltd. with the intention of his leading it in its global business expansion.

Net sales in water-related business (Billions of yen)



Beyond Water with You

Beyond Water with You
A slogan of HORIBA's water related business



Dan Horiba
President of HORIBA Advanced Techno Co., Ltd.

2

Realizing a Super Dream Team ~HORIBA Stained Glass Project~

HORIBA is engaged in global business in niche markets of analysis and measurement and has a wide range of technology and applications. Our Super Dream Teams, comprising of combinations of diverse talents, will enable sustainable growth while maintaining a high share in each area. HORIBA Stained Glass Project was launched in 2014 with the aim of realizing Super Dream

Team. A dedicated unit of our organization was established in January 2017 specifically to promote the project. During that year, various activities, including the start of Kaeru Meetings ("Kaeru" is a Japanese word meaning to return home, to change and FROG), kicked off. (See details, pages 39 and 40.)

3

Start using HORIBA Premium Value, a unique benchmark to measure asset efficiency

We decided to adopt HORIBA Premium Value, a custom-made benchmark to measure asset efficiency, in February 2017, we introduced it to domestic and overseas group companies as well as to each segment, and officially started to implement it in the operation from 2018. (See details, pages 23 and 24.)

HORIBA Premium Value

Formula

Operating income

—

Cost of capital

(Invested capital × In-house rate of cost of capital)

Next-generation vehicle technology and HORIBA's business potential

Comprehensive coverage from the improvement of engines to development of electric and connected autonomous vehicles, by combining complementary technologies

On the back of growth in population, the number of passenger cars used around the world is projected to keep increasing in the future. Conventional vehicles fueled by internal-combustion engines, including gasoline and diesel vehicles, are also expected to increase, while accelerated growth in the number of hybrid or plug-in hybrid vehicles is projected. Regulations on fuel efficiency tend to be tightened year after year and to augment needs for internal-combustion engines. Many companies and institutions are working on next-generation vehicle technology development toward building a sustainable vehicle-oriented society. In particular, development of electric vehicles has been advancing rapidly, with promising potential contribution to the global environment as zero emission, and of autonomous vehicles have the potential to allow anyone to operate a vehicle in a safe pleasant way. Such diversification in vehicle development is forcing automakers

to change their approach from conventional internal development to partial outsourcing. This presents opportunities for HORIBA, which has a high market share in the emission measurement business and has expanded its automotive measurement equipment business with its MCT (Mechatronics) business. Then in 2015, HORIBA entered into the engineering business of automotive development, by acquiring what is now HORIBA MIRA Limited (U.K.). Moreover, by applying technology accumulated in the Process & Environmental, Semiconductor, Scientific Instruments & Systems segments, HORIBA intends to work on areas such as power generation, automotive semiconductors, and battery development. Combining a variety of such technologies and timely responding to demand from more diverse areas are the ways that we plan to contribute to a transformation into the next chapter in transportation.

Global moves in the development of electric vehicles

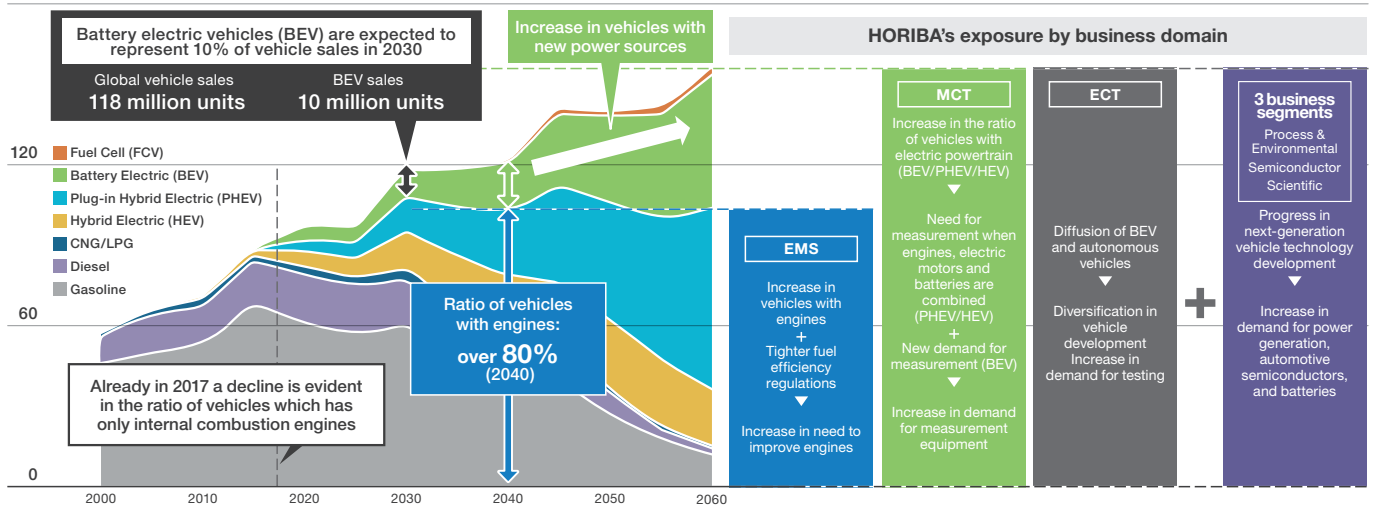
- Governments in France, the U.K., China and other countries announced a policy to shift into greater diffusion of and hybrid vehicles.
- Many automakers plan large-scale investments for electric vehicles.
- Next-generation batteries that enable shorter charging time and longer driving distance are increasingly receiving attention.

Global moves in the development of autonomous vehicles

- Many automakers are working on developing of autonomous vehicles
- Many companies, in diverse industries, have entered into this area.
- The Japanese government announced a plan to commercially use autonomous vehicles during the Tokyo 2020 Olympic and Paralympic Games.

Growth forecasts of vehicles, by powertrain method (prepared by HORIBA based on the IEA Energy Technology Perspectives 2017*)

Market for vehicles (million units)
180



HORIBA's estimated market size of its Automotive Test Systems segment: 2 trillion yen or more (Estimates by HORIBA)

* Modified by HORIBA based on IEA data from Energy Technology Perspectives 2017 © OECD/IEA 2017. License: www.iea.org/t&c. It provides a long-term global scenario to limit the rise in global temperature to well below two degrees Celsius (2°C), as set out in the Paris Agreement.

Interview

Here is an interview to Dr. George Gillespie OBE., Executive Chairman of HORIBA MIRA Limited, asking about his views on how the company is working on the next-generation vehicle technology development.

HORIBA MIRA is engaged in vehicle development engineering, test engineering, and the development and operation of a UK-based automotive Technology Park. Our three strengths are:

1. A wide range of test facilities, technology and product development knowledge that we have invested in and developed for more than 70 years since MIRA Ltd. was formed in 1946;
2. A large team of talented people who are qualified, knowledgeable, and experienced in a wide range of automotive engineering skills; and
3. An independent position of not belonging to any particular OEM or supplier group.

Leveraging these strengths, HORIBA MIRA has built up strong relationships based on trust and delivering a high quality engineering and testing for the world's leading automakers.

Before being appointed as CEO of MIRA in 2009, I belonged to HORIBA's Automotive Test Systems business. Given this background knowledge I firmly believed that there would be great compatibility and substantial synergies between HORIBA and MIRA. I strongly advocated MIRA to join the HORIBA Group in 2015. Despite short-term headwinds such as Brexit, a program of continuous aggressive investment since MIRA was acquired, has enabled HORIBA MIRA to maintain its capability to engage in leading-edge development and testing for our customers, and this has added strength to the motivation of our employees.

The rapidly accelerating technology development for next-generation vehicles, such as electric and autonomous vehicles, represents a great opportunity for us. We are building on our long history of providing leading-edge engineering services related to vehicle development, to automobile makers across the world. Supporting this, we operate MIRA Technology Park, the most important automotive R&D cluster in Europe, where we nurture and inspire innovation in these emerging technologies. About 40 vehicle manufacturers, suppliers and technology startups are engaged in research, development, and testing in the Park. Concerning electric vehicles, there is a real need to improve the performance of the battery systems to increase the available driving range, reduce costs and minimize weight. This is the key for electric vehicles to become widely accepted and adopted across a range of applications from city cars to buses and high-performance sports cars. In developing autonomous vehicles, it is important to combine cost effective and capable "hardware" that creates advances in the functions and safety of vehicles, with "software," including Functional Safety, Artificial Intelligence and cybersecurity measures.

HORIBA's strengths lie in skilled manufacturing while HORIBA MIRA's lie in vehicle development and testing services. We are now actively combining HORIBA MIRA's engineering strengths with HORIBA's measurement technology in areas such as automotive, scientific, semiconductor, and environmental sectors and applying these unique combinations to expand our global business in fields related to next-generation vehicle technology development. That is now my mission within HORIBA and HORIBA MIRA.

George Gillespie OBE., Executive Chairman of HORIBA MIRA Limited (Dr. Engineering)

Previously held senior roles with Ricardo plc (U.K.) and Schenck AG (Germany), he worked as Vice President in Strategic Product Development at HORIBA Europe GmbH (Germany) and became CEO of MIRA Ltd. (now HORIBA MIRA Limited) in the U.K. in January 2009.



Transition to next-generation mobility means changes in energy generation and where it is consumed. HORIBA's analytical and measurement technologies contribute to the entire processes.

Process & Environmental
Scientific

Air pollution monitoring



Used in constant monitoring and analysis of component of the aerial environment

Process & Environmental
Semiconductor
Scientific

Water quality measurement



Used for measurement of various types of water from the natural environment to factories' wastewater discharge

➔ Flow of energy consumption

Scientific



Oil analysis
Contributes to analysis of sulfur and other components in oil at production sites

Process & Environmental



Monitoring of petroleum refining process
HORIBA's process measurement equipment business is used at oil refineries and other places.

Process & Environmental



Thermal power generation
Contributes to efficient power generation through using devices for emission gas regulations and monitoring of power generation processes

Semiconductor Scientific



Solar power generation
Contributes to development of power generation modules



Engine vehicles

Electric vehicles

A well-to-wheel analysis (also known as life cycle analysis) is an important concept for thinking about energy efficiency on a global scale. In the case of a gasoline-powered vehicles, for example, this concept refers to the exploring of oil, construction and operation of an oil well, refining crude oil into gasoline, to powering the operation of the drive mechanism of a vehicle. For an electric vehicle, energy consumption for the whole process, such as the power source used for charging batteries and operating vehicles, is aggregated. In order to use energy efficiently, we must consider not only consumption but also improvement in efficiency for all processes including generation. HORIBA's analytical and measurement technologies contribute to analysis and improvement as well as development of new technology for the entire process of energy use and consumption.



Emission measurement; engine development
 Contributes to engine development and meeting emission regulations



Evaluation and material analysis for automotive catalysts
 Contributes to development of emission gas purification systems, etc.

Field in which HORIBA exhibits strength



Automotive engineering
 Provision of a testing environment for vehicle development, and provision of vehicle development consulting

Support to transport management
 Contributes to efficient transport with vehicle transport management and video/audio recording



HORIBA's analytical and measurement technologies contribute to development of engines, electric vehicles and autonomous driving



Evaluation of motors and batteries
 Contributes to drivetrain development for electric vehicles

Potential growth areas



Evaluation of battery materials
 Contributes to development and evaluation of secondary batteries



IoT and AI
 Significant increase in demand of automotive semiconductors and services due to an increase in autonomous vehicles



Masao Okawa Managing Director and General Manager of General Administration Division

Masao Okawa joined HORIBA, Ltd. in 2017. He had worked for the Bank of Japan since 1988. At the Bank of Japan, He had been at various positions including Chief Representative of Representative Office in Frankfurt(2003-2006), Branch Manager of Takamatsu Branch (2013-2015) and Branch Manager of Kyoto Branch(2015-2016). Taking advantage of insights on finance, governance and global experience at the Bank of Japan, he is currently engaged in forming a global financial strategy and enhancing compliance and corporate governance as HORIBA's General Manager of General Administration Division and concurrently Tokyo Branch Manager.

HORIBA is maximizing corporate value over the long-term by balancing investment growth and asset efficiency improvement

Managing Director and General Manager of General Administration Division

Masao Okawa

I am in charge of executing HORIBA's global financial strategy as General Manager of General Administration Division of HORIBA, Ltd.. While working at the Bank of Japan previously, I had been engaged in organization management as branch manager and in governance as manager of legal services division. I also had experience in international finance as Chief Representative of the Frankfurt Office and through being seconded to the Bank of International Settlements in Basel in Switzerland. This is my first time working in the manufacturing industry. I am committed to utilizing my insights and engaging in dialogues with stakeholders with the aim of maximizing HORIBA's corporate value.

Aggressive investments with a long-term vision

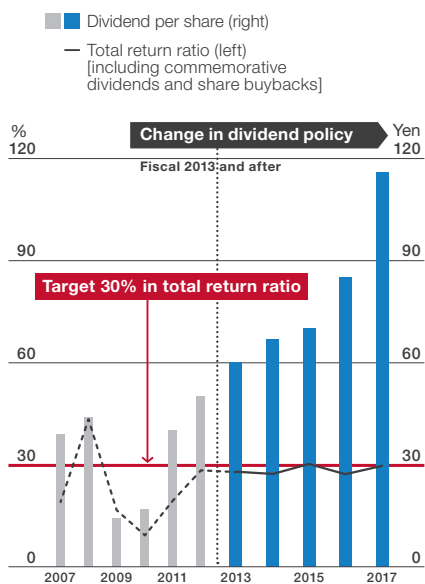
HORIBA has invested in production facilities, R&D activities, and human resources from a long-term perspective. In the past five years, HORIBA's operating cash flow amounted to about 85 billion yen, demonstrating the outcome from more

than 10 years of continuous investment made even during economic downturns. In recent years, our level of investments has been high as we invested in building HORIBA BIWAKO E-HARBOR and acquired HORIBA MIRA Limited (U.K.) in 2015, and aggressive capital spending at HORIBA MIRA in 2016-2017 followed by expansion of the HORIBA STEC Aso Factory in the Semiconductor Instruments & Systems segment. We are confident that these investments will be a driving force to generate cash flow over the next 10 years.

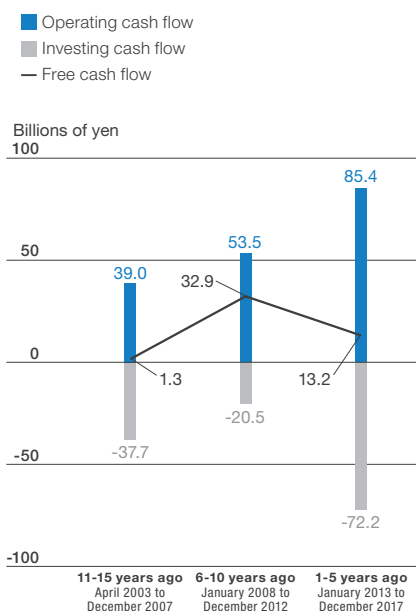
Shareholder return of approximately 30% of consolidated net income

Since 1974 when HORIBA was listed in the Second Section of the Tokyo Stock Exchange, HORIBA has continued to pay shareholder dividends based on a predetermined payout ratio. Since 2013 we have changed our shareholder return policy from setting 30% of nonconsolidated net

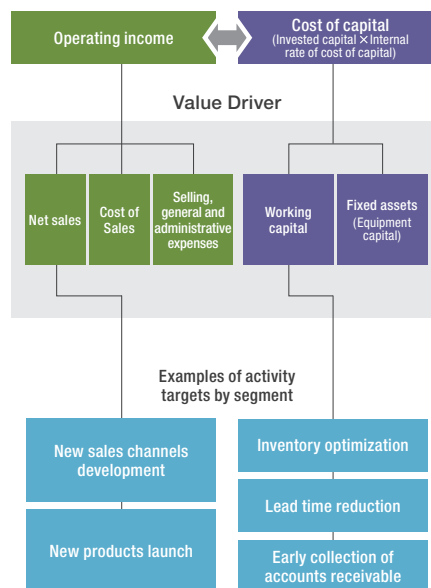
Dividend payments and total return ratio



Free cash flows



Approach for the enhancement of capital efficiency



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 set total returns (the combination of dividend payments and share buybacks) to shareholders as approximately 30% of consolidated net income. This payout ratio 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. However, we will proactively make investment which is expected to result in creating future corporate value.

income to setting total returns (the combined amount of dividend payments and share buybacks) at approximately 30% of consolidated net income, so that shareholder returns are more directly linked to consolidated performance. Based on this policy, we increased the dividend per share by 31 yen from the previous year to 116 yen in fiscal 2017 and are projecting an increase of 4 yen to pay a dividend per share of 120 yen in fiscal 2018. We intend to continually reward owners (shareholders) in line with growth in corporate value, driven by business growth.

Initiatives to improve asset efficiency: Adopting "HORIBA Premium Value" as benchmark

HORIBA has identified the ROE target and operating income margin target of each business segment but has not had any common yardstick to evaluate returns on invested capital. As shown by our large investments, including the construction of HORIBA BIWAKO E-HARBOR and the

acquisition of HORIBA MIRA Limited, we are increasingly focused on the importance of improving asset efficiency. There are many ways to measure corporate asset efficiency. To be conscious of the capital cost, we introduced a unique benchmark "HORIBA Premium Value" in 2017. This is a common benchmark for the HORIBA Group to gauge how efficiently we invest, control working capital, and generate profit. This is to be used to evaluate performance of each company and each business segment in light of the asset efficiency. From 2018 the HORIBA Premium Value target will be set for each group company and each business segment. Our objective is to be conscious of the fact that capital is needed for investment and raise the consciousness regarding collection of returns from investment. However, figures for a single year are not everything. As necessary, we will make forward-looking investment even if HORIBA Premium Value may temporarily deteriorate, aiming for greater future return. HORIBA is thus determined to keep investing proactively in the future.



Business segments to expand globally

*Automotive Test Systems
Process & Environmental
Medical-Diagnostic
Semiconductor
Scientific*



Automotive Test Systems

Principal products

Emission measurement systems
Automotive emission analyzers
Onboard emission measurement systems
Driveline test systems
Engine test systems
Brake test systems
Transport Management System
Vehicle development engineering
Testing engineering
Lease and management of R&D facilities

Major customers

Automotive manufacturers, automotive component manufacturers, government regulatory agencies

Product applications

Development of new gasoline, diesel and hybrid powertrains, vehicle certification and quality control, in-use vehicle inspections

Major risk factors

Changes in emission gas regulations
The automotive industry's capital spending and R&D investments



Process & Environmental Instruments & Systems

Principal products

Stack gas analyzers
Water quality analysis and examination systems
Environmental radiation meters
Process measurement equipment

Major customers

Electric power companies
Government agencies
Manufacturers

Product applications

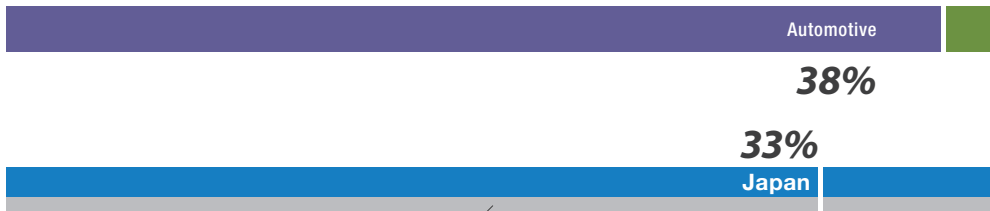
Measurement of gaseous emissions, wastewater and water supplies, environmental pollution monitoring, environmental radiation measurement equipment

Major risk factors

Changes in environmental regulations by government agencies

Sales by business segment
(Fiscal 2017)

Sales by region
Main transaction currency
(Fiscal 2017)



Yen



Medical-Diagnostic Instruments & Systems

Principal products

Hematology analyzers
Immunology analyzers
Clinical chemistry analyzers
Blood glucose analyzers

Major customers

Medical testing centers, small to medium-sized hospitals, medical practitioners

Product applications

Health and diagnostic testing, disease diagnosis

Major risk factors

Changes in total healthcare expenditures caused by changes in populations and other factors
Changes in medical insurance systems in different countries



Semiconductor Instruments & Systems

Principal products

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

Major customers

Semiconductor production equipment manufacturers, semiconductor device makers

Product applications

Flow control of gases and liquids, monitoring of cleaning fluid concentrations in semiconductor manufacturing processes, semiconductor and LCD quality control inspections

Major risk factors

Changes in semiconductor makers' capital spending and semiconductor manufacturing equipment makers' production, caused by significant fluctuation in semiconductor demand



Scientific Instruments & Systems

Principal products

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

Major customers

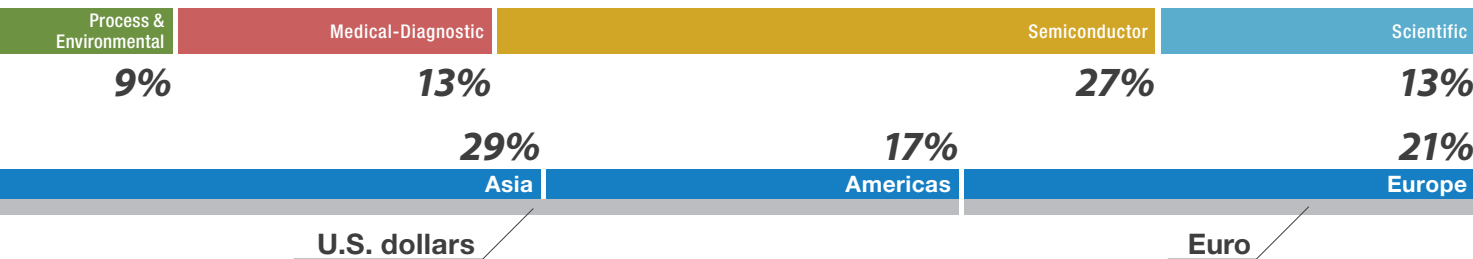
Manufacturers/research institutions
Universities/government agencies
Electric power companies

Product applications

R&D, product quality testing, criminal forensics

Major risk factors

Changes in R&D budgets of government agencies
Changes in the private sector's R&D spending and capital spending for production



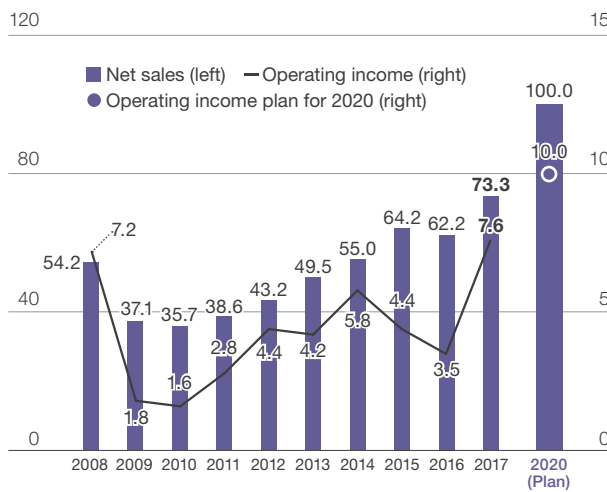
Automotive Test Systems

Providing powerful support to the automotive development industry

HORIBA's automotive Emission Measurement Systems (EMS) are used by national certification bodies throughout the world and hold a global market share of 80%*. HORIBA provides complete test and measurement solutions to the world's leading automotive manufacturers, including test systems for engines, chassis, powertrains, brakes and catalysts. In July 2015 HORIBA acquired HORIBA MIRA Limited, a U.K. registered vehicle engineering consultancy and testing services provider. With the addition of HORIBA MIRA Limited, the company has expanded beyond analysis and measurement to include the Engineering Consultancy & Testing (ECT) business. It is now well positioned to respond to diverse customer demands as future mobility requirements expand from providing advanced vehicle performance testing and R&D know-how to development of electric vehicles and autonomous vehicles.

* Estimate by HORIBA

Net sales and operating income (Billions of yen)



2017 results:

- Record-high segment sales, boosted by strong emission gas business
- Turnaround in the Mechatronics (MCT) business

2018 forecasts:

- Continued demand related to emission gas regulations
- Expansion of the ECT business

In 2017, in response to rising demand driven by more stringent global emission regulations, we increased sales of emission measurement systems by raising production efficiency of HORIBA BIWAKO E-HARBOR. We also invested aggressively in the ECT business, aiming for its expansion in areas of development in autonomous driving and other next-generation automotive technology. Sales growth in the MCT business also contributed to a year-on-year increase in segment sales and operating income.

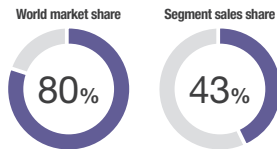
In 2018, sales and operating income are expected to increase year-on-year. Sales of emission measurement systems are likely to be firm due to tighter emission gas regulations. Furthermore, sales in the ECT business are also projected to increase in the next-generation mobility development field.

Major products and market shares

Note: Market shares quoted are estimates by HORIBA

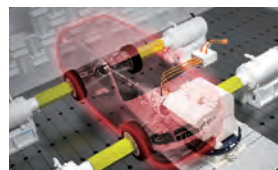
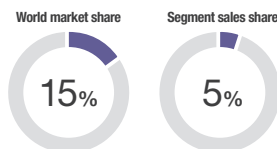
Emission measurement systems

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.



Mid-long term strategy:

To have a larger role as a development partner with engineering capability, and a smaller role as just a product provider for automotive developers.

HORIBA will expand its business competencies by capitalizing on cross-over technologies in its new ECT business and the existing automotive testing operations in the EMS, MCT, and Intelligent Transport Systems (ITS) businesses. In Europe, the Real Driving Emissions (RDE) regulation, on-road emissions testing of light-duty vehicles with mandatory limits, have started in September 2017 and a similar regulation will be enforced in Japan in 2022. HORIBA will leverage its strong branding position and 80% global share in emission measurement systems for laboratory testing to achieve a high market share in the RDE regulation business. Further, HORIBA will provide product and service as R&D partner to meet expectations for next-generation mobility incorporating vehicle electrification and autonomous driving technology.

Major risks and opportunities

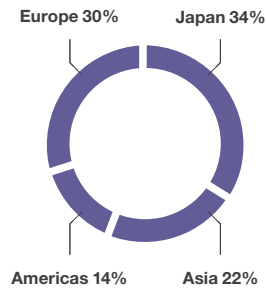
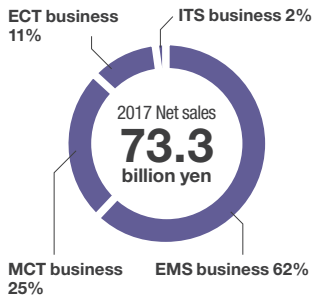
Many countries are enhancing emission gas regulations. In addition, development of electric vehicles and autonomous vehicles is gaining attention.

In such an environment, automotive and component manufacturers are aggressively making development investment. Not only existing automotive manufacturers but also new players are entering the automotive industry.

HORIBA believes that these changes in development technology and industry structure will create business opportunities for us.

Sales breakdown

Sales by region



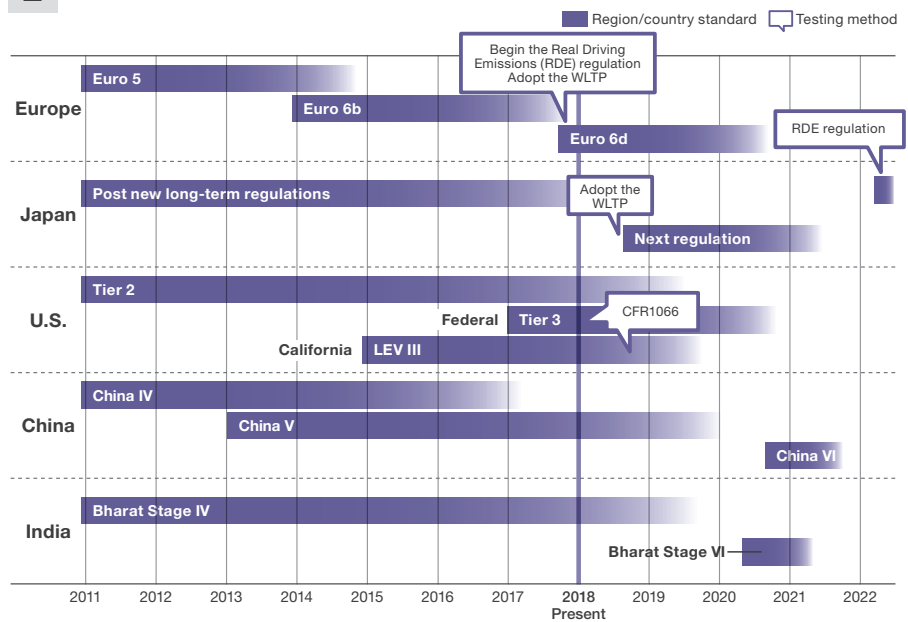
Trend of automobile-related regulations

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 has been adopted in Euro 6d (September 2017) and will be introduced into 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 the change.

2 Progression of emission standards by region/country



Sources: HORIBA's survey based on materials of the Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism; Japan Automotive Manufacturers Association Inc.; and others

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			55~65
	Engine performance testing			100~120
MCT business	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~

Advanced Emissions Test Centre (AETC) opened

In July 2017, the Advanced Emissions Test Centre (AETC) opened on HORIBA MIRA Limited (U.K.). The AETC facilities, the state-of-the-art HORIBA emission measurement systems, will provide testing capabilities for global compliance, including Euro 6d, as well as incorporating Real Driving Emissions (RDE) testing capabilities. And the AETC will allow the determination of exhaust pollutants over a range of climatic condition from temperatures of -20°C to 35°C and at simulated altitude up to 5,000m. The Centre is contributing to accelerate the development speed of automotive manufacturers.



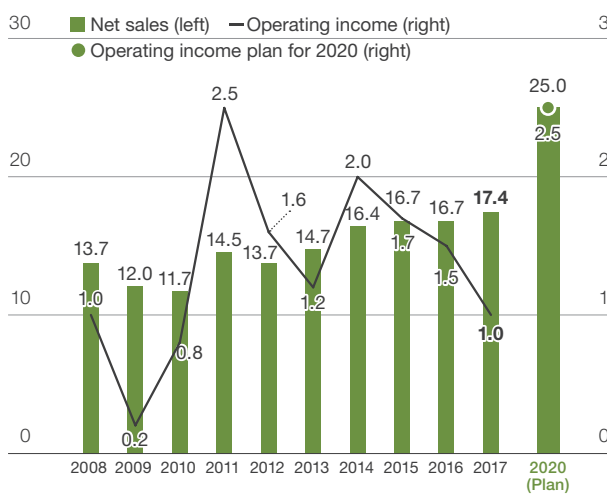
Process & Environmental Instruments & Systems

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 wastewater in the energy and heavy industries; electric power, steel, chemical industries, purified water management for medical and semiconductor use; and water quality monitoring and control for food, and cosmetics fields.

In essence, HORIBA's analytical and measurement technology contributes to leading technological innovation, which supports public safety, security, and health in addition to global environmental preservation. This also means that we help achieve sustainable development, as advocated by Sustainable Development Goals (SDGs).

Net sales and operating income (Billions of yen)



2017 results:

- Robust sales of stack gas analyzers in Japan and China
- Sluggish process measurement systems business in the Americas

2018 forecasts:

- Continuing robust sales of stack gas analyzers
- Recovery in the process measurement equipment business in the Americas

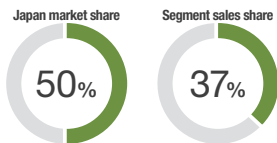
In 2017, sales of stack gas analyzers for thermal power plants and factories were robust in Japan and China. While the process measurement equipment business in the Americas was sluggish, we relocated and expanded the Houston factory, to accelerate business expansion in the oil refining market. As a result, segment operating income decreased year-on-year despite a sales gain. In 2018, we expect robust sales of stack gas analyzers to continue. We also anticipate a recovery in demand in the process measurement equipment business in the Americas and, as a result, an increase in its sales is projected to contribute to increases in segment sales and operating income.

Major products and market shares

Note: Market shares quoted are estimates by HORIBA

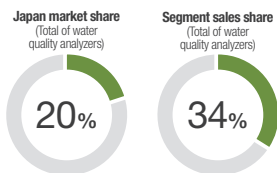
Stack gas analyzers

These analyzers provide highly sensitive and precise measurements of NO_x, 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.



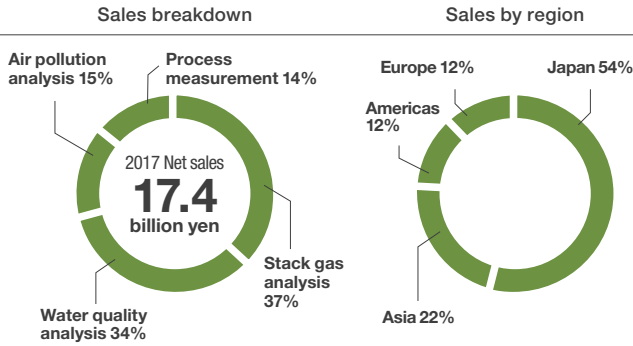
Mid-long term strategy:

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.

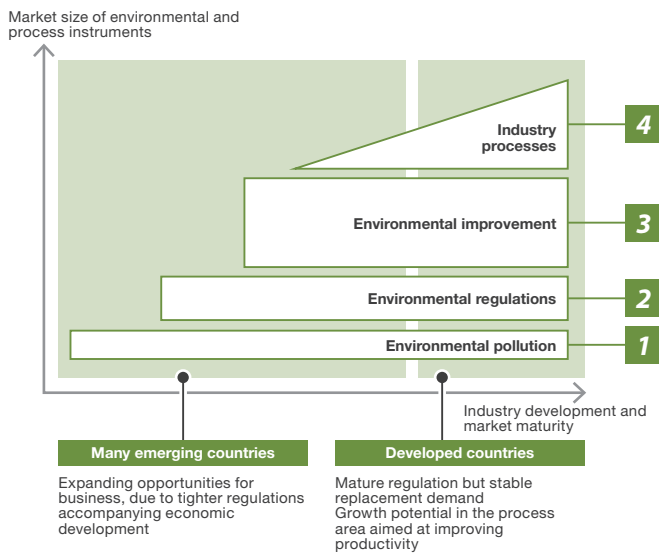
Major risks and opportunities

Along with economic development, emerging countries in general tend to tighten environmental regulations. In developed countries which already have such environmental regulations, focus is shifting to environmental improvement of factories and power generation plants and to improvement in energy efficiency. HORIBA considers these changes in regulations and production processes as business opportunities.



Major products and targeted markets

Business model of environmental and process instruments



Air pollution analyzers Major target market **1**

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.



Stack gas analyzers Major target market **2**

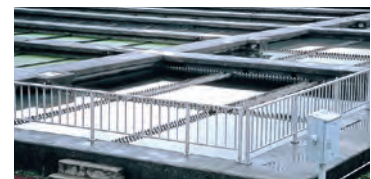
HORIBA is the leading market share* in Japan for continuous emission monitoring systems used in plants and other facilities that generate gaseous emissions and soot. Our instruments have established a widely recognized credibility for robust and reliable sampling systems, which are essential in continuous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

* HORIBA's estimate



Water quality analyzers Major target market **3**

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.



Process measurement system Major target market **4**

We have established a structure that enables us to integrate various equipment and devices of petrochemical refining, dissolution, and processing into a system and provide it collectively. Based in Texas, the heart of the U.S. oil industry, we contribute to efficient production management in the process measurement field of the oil industry. In 2017, we relocated to a new expanded office in the suburbs of Houston, to accelerate business expansion.



ESG

ENVIRONMENT

Analysis and monitoring of air pollutants, contributing to environmental preservation and improvement



Continuous particulate monitor with X-ray fluorescence PX-375

This device constantly monitors Particulate Matter (PM2.5) in the air for 24 hours a day and helps determine source of PM concentration. It has been adopted by the Ministry of the Environment in Japan to search for points of generation of air pollutions and implement effective measures.



Tunable laser gas analyzer TX-100

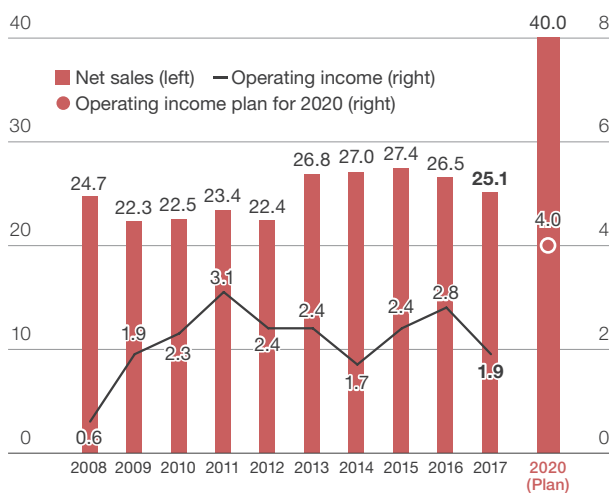
This device enables laser measurement of hydrogen chloride generated within waste incineration plants and other industrial settings. Demand for the device is increasing as the hydrogen chloride is causing a central environmental problem mainly for emerging countries, as this emits strong irritating odor and affects the human body.

Medical-Diagnostic Instruments & Systems

Contributing to a healthy life through in-vitro diagnostic systems

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 for Point of Care Testing (POCT) in the clinics and satellites in the hospitals such as operating room, as well as small to medium-sized hospitals and commercial laboratories.

Net sales and operating income (Billions of yen)



2017 results:

- Sluggish sales in the Americas
- Launch of new products and business alliance as a launch pad for business expansion

2018 forecasts:

- Expect solid sales thanks to the launch of new products

In 2017, sales were sluggish in the Americas but new products, developed in France and Japan in the hematology area, were launched. We entered into a long-term business alliance as a means of entering into a new market, and we accelerated implementation of our business expansion strategy. These were forward-looking moves; the segment could not immediately benefit from them and posted a year-on-year decline in segment sales and operating income.

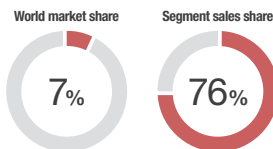
In 2018, we will continue to enhance the business alliance and development capacity in order to broaden the product lineup. Stronger sales with a contribution from new products and stronger operating income are expected.

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.



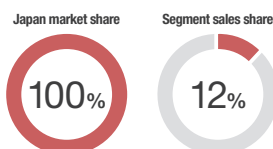
Mid-long term strategy:

Expanding into new areas and increase sales by launching new products.

At present, HORIBA's strengths reside in having development bases in Japan and France and a local production infrastructure of reagents in China, India, and Brazil etc, 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 expand sales of at an early date new medium- to large-sized products, which are sourced from France. 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 diagnostic market.

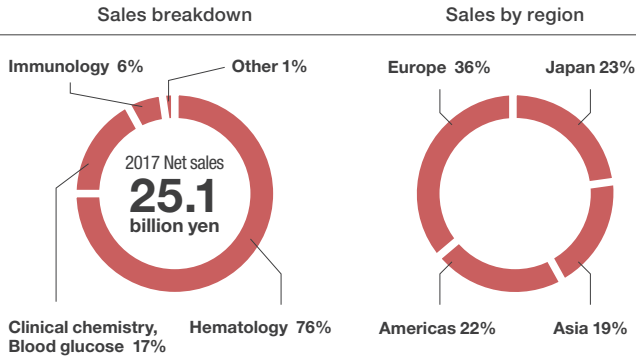
Hematology and CRP analyzers

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.



Major risks and opportunities

Global population is rising mainly in emerging countries and healthcare costs are generally on a rise. In developed countries, there is an increasing demand for high-precision, efficient medical devices, so as to realize more efficient medical services. Medical insurance systems that support these medical services are undergoing major changes in many countries. HORIBA considers these changes in demand for medical devices and in healthcare systems as business opportunities.



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

2

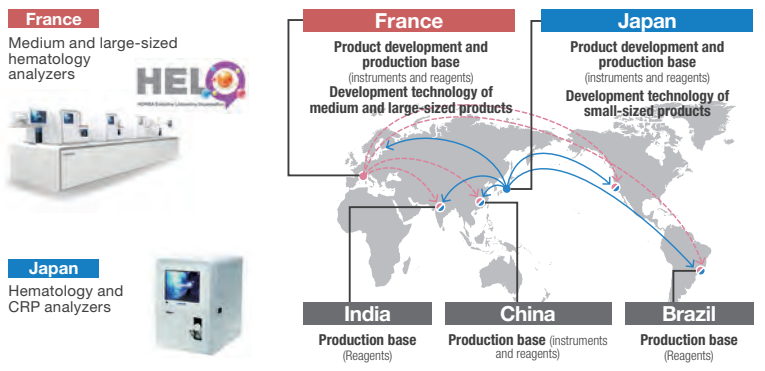
Entered into a long-term agreement with Siemens Healthcare Diagnostics Inc. (U.S.)

HORIBA has long accumulated hematology testing technology and developed global operations, centered in Europe. Siemens Healthcare Diagnostics, on the other hand, has a global sales network and contributes to comprehensive healthcare by supplying not only in-vitro diagnostic systems but also imaging devices and therapeutic systems. The combination of innovative technologies of both companies will allow us to respond to diverse medical needs in the in-vitro diagnostics market.

1

Global R&D and sales/production networks

Our bases of development and production, both at HORIBA ABX SAS (France) and HORIBA, Ltd. (Japan), are routinely exchanging technology. In 2017, the HORIBA Evolutive Laboratory Organization (HELO) Solution, a testing system equipped with an automated conveyance system having a variable number of analytical modules and adjustable modular configurations, depending on the customer's work flow needs, was launched in France. It provides comprehensive optimal solutions for improvement of laboratory work flow. Further, HELO Solution provides valuable statistical data for enhancing efficiency of the laboratory. In Japan, new small-sized combined hematology and C-Reactive Protein (CRP) analyzer was launched. HORIBA has a global sales network, established by HORIBA ABX, as well as production bases for stable supply of reagents (consumables) in the volume-consumption regions. We plan to accelerate new product development and make use of our global networks for further business expansion.



ESG SOCIAL

Contribution of HORIBA's products in Newborn Intensive Care Units (NICU)

HORIBA's hematology and CRP¹ analyzers are used in NICUs. There are many low birth weight infants in NICU. It is necessary to test using small amount of blood sample. Premature infants are usually immunocompromised and high risk of infection. HORIBA's analyzer enables measuring with blood sampled of 30μL, the size of a rice grain, and to measure both complete blood cells count and CRP at the same time, allowing neonatologists to detect infection at an early stage. In addition, it spends only 4 minutes² to get the results by use of HORIBA's analyzer, in contrast to 60 minutes for the test result to be obtained when analysis is done at a central lab within a hospital. HORIBA is committed to contributing to early detection of infection of infants by providing in-vitro testing devices.

¹ C-reactive protein (CRP) is a protein that increases in the blood in response to inflammation. It is used as a marker of infection.
² The amount and the measurement time is depended on the type of device and conditions of use.

Masahiro Hayakawa
Clinical Professor
Division of Neonatology,
Center for Maternal-Neonatal Care
Nagoya University Hospital
(Adopted HORIBA's products in the NICU)

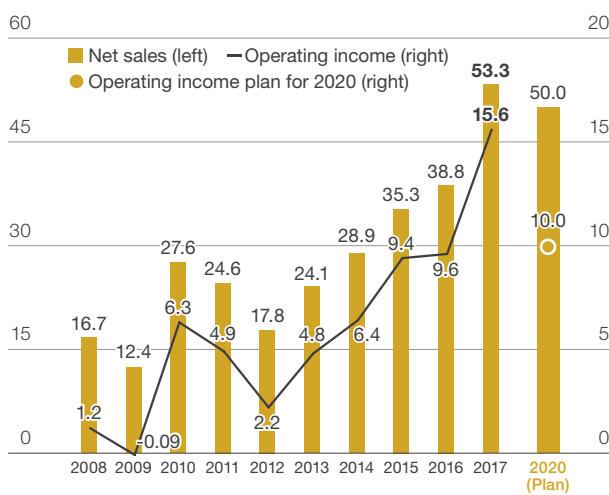
Semiconductor Instruments & Systems

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). We have a leading global market share*, largely on the strength of our flow control technology that enables yield enhancement and miniaturization in the semiconductor manufacturing process. We also have chemical concentration monitors and aim to contribute to the semiconductor industry by providing customers with high-level solutions that support technical advances in manufacturing processes.

* Estimate by HORIBA

Net sales and operating income (Billions of yen)



2017 results:

■ Robust investment demand by semiconductor manufacturers

2018 forecasts:

■ Maintaining market shares in the favorable semiconductor market

In 2017, on the back of high-level capital expenditures by semiconductor manufacturers, sales of mass flow controllers to semiconductor production equipment (SPE) manufacturers increased significantly. Responding to an increase in demand, we completed expansion of the HORIBA STEC Aso Factory and increased production capacity of mass flow controllers. We also relocated and expanded our bases in South Korea and Taiwan to strengthen our local infrastructure to service and support customers. As a result, segment sales and operating income increased year-on-year.

In 2018, as capital spending by the semiconductor industry is expected to remain at a high level, we project a sales gain and the resultant year-on-year increase in segment sales and operating income.

Mid-long term strategy:

Expand market share of main products

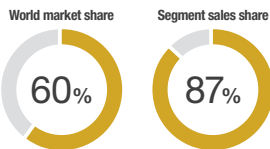
We will further enhance our flow control technology, which has been accumulated primarily in mass flow controllers. We also aim to grow sales of chemical concentration monitors, used in semiconductor wafer cleaning processes. In addition, we will combine our flow control technology and analysis and measurement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

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.

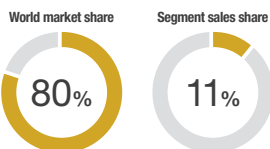


Application of mass flow controllers
(Semiconductor manufacturing process; solar battery manufacturing process)
<http://www.horiba.com/us/en/semiconductor/applications/semiconductor/>



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.

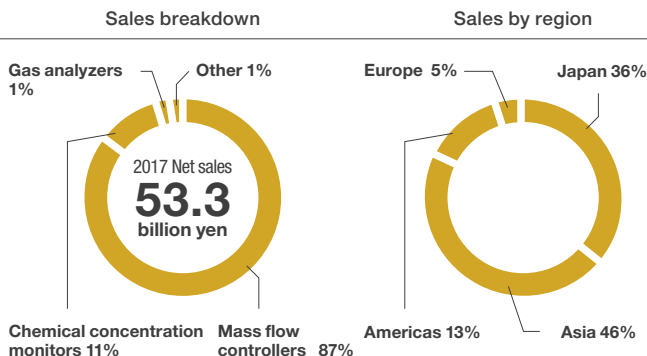


Major risks and opportunities

An increase in processing volume at data centers and penetration of Artificial Intelligence (AI) and the Internet of Things (IoT) have significantly boosted demand for semiconductors.

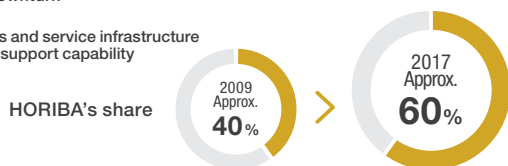
In addition, advances in technology and production process, such as miniaturization and more multi-layer semiconductor production processes, have significantly impacted demand for semiconductor production equipment.

HORIBA considers these changes in demand for semiconductors and technology advances as business opportunities.



Reasons behind HORIBA's global share expansion in mass flow controllers

- 1 Increase in demand for etching devices, due to an increase in memory and more multi-layer semiconductor production processes. HORIBA's differential pressure type mass flow controllers are being widely relied upon in the next-generation manufacturing process
- 2 Stable product supply capability, realized by making continual investment for development and production even during an economic downturn
- 3 A global sales and service infrastructure and a strong support capability



An increase in data centers and use of IoT and AI has boosted semiconductor demand, while technological advances, such as the increase in multi-layered processes, has raised demand for etching devices. HORIBA's differential pressure type mass flow controllers, are recognized for enabling these new processes and are widely adopted for cutting-edge semiconductor manufacturing, thereby contributing to higher market share. This success is attributable to both our continued investment in, and launch of new products even during a previous downturn in demand, and to our elevated technical capability and production capacity which better satisfies demand from semiconductor manufacturers. In our view, our balanced management, which enabled us to carry excess funding capacity and maintain production facilities to match anticipated demand, was a key contributor to our success.

Opened new bases in South Korea and Taiwan

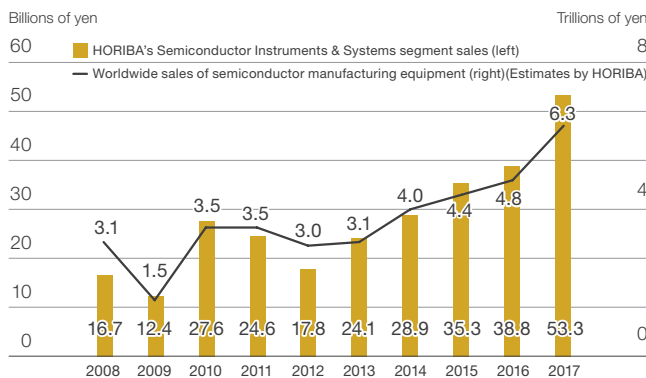
In 2017 we opened new facilities equipped with a clean room to enable operations from application development to production, in South Korea and Taiwan.

Since we opened the semiconductor business service bases in South Korea and Taiwan in 1991 and 1996 respectively, these bases, mainly for sales and maintenance, have contributed to building close relationships with local customers and raising recognition of the Semiconductor Instruments & Systems segment. Looking ahead, we will continue to demonstrate a high level of response to local customers and provide cutting-edge technology, in order to expand our business.



A new facility of HORIBA STEC KOREA, Ltd. (South Korea)

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



SOCIAL

Continued investment to realize a growth ingrained in the community

The HORIBA STEC Aso Factory, which manufactures mass flow controllers in Nishihara Village, Kumamoto Prefecture, has been supported by the people in the prefecture since the factory started up in 1988. 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 led to our decision in July 2016, only three months after the Earthquakes, to break ground on the biggest-ever expansion of the Aso Factory, utilizing its strength together with the community and contributing to segment growth. The construction was completed in December 2017 and the factory's floor space was expanded by about 1.5 times. We seek to further enhance its stable supply capacity and make it a driving force in the growth of the HORIBA brand in the semiconductor market.



The Aso Factory's history

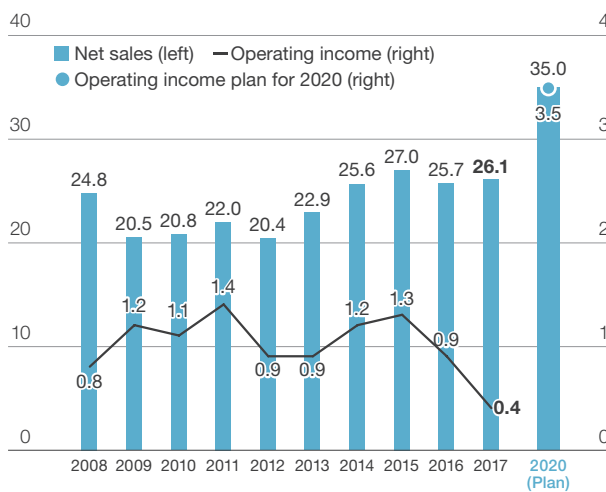
1988	Completed construction of the Aso Factory	2012	4th stage expansion
1992	2nd stage expansion	2016	Damaged by the Kumamoto Earthquakes
2005	3rd stage expansion	2017	5th stage expansion

Scientific Instruments & Systems

Generating HORIBA's core technology and supporting 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.

Net sales and operating income (Billions of yen)



2017 results:

- Robust sales of spectrometers for R&D applications by universities in China
- Increase in development investment associated with a new product launch

2018 forecasts:

- Recovery in demand mainly in Japan

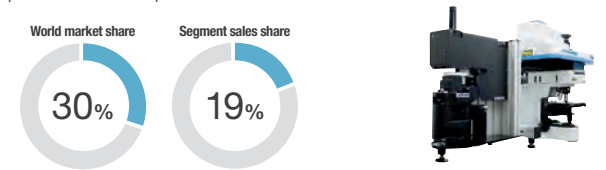
In 2017, sales were sluggish in Japan and Europe, but sales in China and the Americas were firm. Particularly in China, we enhanced our sales organization for marketing of Raman spectrometers and other products to universities and academic institutions and applied existing technologies to product development for expanding business into new markets. We also collaboratively utilized technology resources and our customer network with HORIBA's four other business segments and focused on expansion of our customer base. The segment recorded a decline in operating income on a sales gain, mainly due to an increase in R&D expenses. In 2018, sales are expected to increase due to a recovery in demand stemming from growth in capital spending and R&D expenditures of the private sector, mainly in Japan. Consequently, we forecast a year-on-year increase in segment sales and operating income.

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.



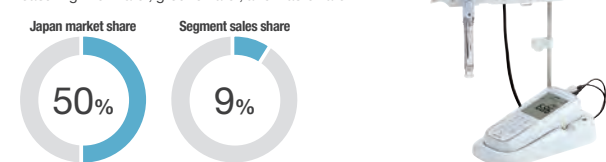
Mid-long term strategy:

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. Each of our three bases, in Japan, France, and the U.S., leverages its distinctive strength in product development, leading to a wide range of use of our products in R&D in companies and academic institutions, including research universities. We believe new growth opportunities may arise from sales channels and applications developed by HORIBA's four other business segments.

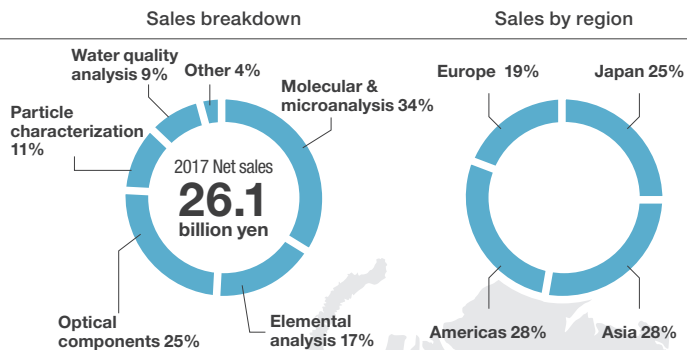
pH meters

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.

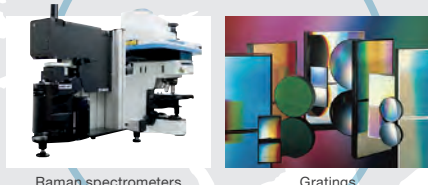


Major risks and opportunities

Development of cutting-edge technology is undertaken by governments of various countries, using their national budgets, as well as by manufacturers, research institutions, and other entities in the private sector. HORIBA considers changes in cutting-edge technologies as business opportunities.



Three Global Bases: R&D, manufactured products and strategies



SOCIAL

New start as HORIBA FRANCE

Jobin Yvon S.A.S. (now HORIBA FRANCE SAS), established in 1819, celebrated its 20th anniversary since being acquired by HORIBA in 1997. Its headquarters is located in the suburbs of Paris, in a site adjacent to the leading science and technology French institute École Polytechnique. HORIBA France has promoted industry-academy cooperation in hiring and in product development, and has achieved business growth that was closely associated with its local community. The company plans to accelerate global development of its optical analytical technology.



HORIBA Europe Research Center of HORIBA FRANCE SAS

Accelerate customized products development, satisfying customers' needs

HORIBA, Ltd. has many basic technologies and is engaged in development of customized products that are tailored to needs of companies, universities, and laboratories. For example, we developed a customized device for a precious metal manufacturer and another special device for a university laboratory doing advanced research, in response to their specific needs. Through such product development, we refine our technology and play a role in sharing analytical and measurement technology to our four other business segments, and at the same time seek to improve profitability.

X-ray fluorescence analyzers that are customized for a precious metal manufacturer



Launch of DUETTA™ fluorescence and absorbance spectrometer

HORIBA launched a new fluorescence and absorbance spectrometer for analytical molecular spectroscopy, for use in the materials, earth, and life science areas. The product was developed by combining technologies of Photon Technology International (U.S.) acquired in 2014 and HORIBA Jobin Yvon (U.S.)

Features

1. Two-in-one fluorescence and absorbance spectrometer, reduces cost and time for measurement
2. Wide wavelength detection range, enabling accurate analysis
3. New easy-to-use software, contributing to more efficiency



New product DUETTA™

Creating Cor

HORIBA's thoughts on CSR

Achieve CSR by growing business

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 accelerating AI and IoT expansion, HORIBA is identifying key topics in the area of science and technology and areas for the company to contribute to achieving the mid-long term management plan MLMAP2020 and best serve the company's interests from a long-term perspective.



See details on HORIBA's CSR activities on the website:

https://www.horiba.com/en_en/company/social-responsibility/home/

Process of identifying material topics



- [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.
- [HORIBA's various activities](#) were screened by using guidelines on SDGs^{*1} and ESG investments for reference (around 100).
- [HORIBA's corporate philosophy and strength were confirmed and areas and frameworks \(Design Sugoroku\)](#) where HORIBA can or should contribute in solving social issues or do so in relation to stakeholders were studied.
- The current initiatives were categorized in a framework and were approved by the HORIBA CSR Promotion Committee (pages 43 and 44.).
- [25 ESG Workshops](#) were held in 2017.
- HORIBA participated in CDP^{*2}
- [The ESG Subcommittee](#) was established within the HORIBA Group CSR Promotion Committee.
- [CSR activities by HORIBA's overseas group companies](#) were surveyed.
- [Four subcommittees](#), one each on the environment, social affairs, governance, and public relations, will be established and [missions and action plans for each for 2018](#) will be set.
- HORIBA's CSR Policy will be clarified in the next mid-long term management plan and will be announced to the public.
- HORIBA's CSR website will be renewed and disseminated broadly outside the group.



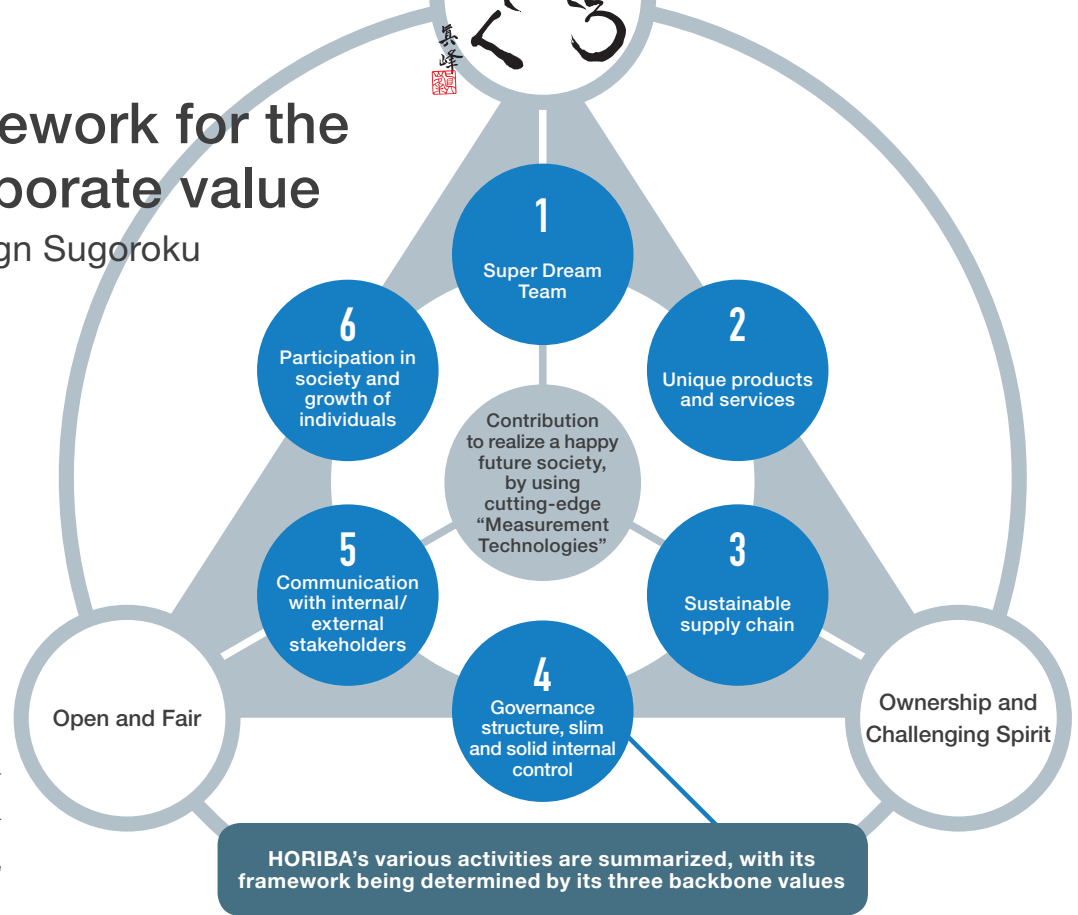
^{*1} SDGs: The Sustainable Development Goals (SDGs), officially known as "Transforming our world: the 2030 Agenda for Sustainable Development," is a set of 17 "Global Goals" with 169 targets between them. The United Nations General Assembly adopted the agenda in September 2015. See <https://sustainabledevelopment.un.org/?menu=1300> ^{*2} 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>

Corporate Value



HORIBA's framework for the creation of corporate value

Expressed through Design Sugoroku



the Corporate motto : "Joy and Fun,"
"Open and Fair,"
and "Ownership and Challenging Spirit."

Applying 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.

4 Governance structure, slim and solid internal control	5 Communication with internal/external stakeholders	6 Participation in society and growth of individuals
<p>Appointment of outside officers since our foundation</p>	<p>Identification of important information; investor relations (IR) activities and proactive disclosure based on Open and Fair Signatory to the UNGC⁵; dialogue with outside institutions, such as CDP</p>	<p>Use of the BlackJack Project and HORIBA COLLEGE⁶ for growth of individuals and the organization</p>
<p>Global adoption of the ERP (Enterprise Resource Planning) system Enhancement of stability of the business base, assisted by the IMS⁴</p>	<p>Promotion of global dialogue with business partners and customers; continual meetings with sales companies and subcontractors; Technical Olympics, technology seminars for customers, etc.</p>	<p>Work style renovation to support designing "Decent Work" and a prosperous lifestyle</p>
<p>Adoption of HORIBA Premium Value, an indicator for targeting and monitoring the improvement of capital efficiency</p>	<p>Internal communication with employees and executives at product launch meetings, etc.</p>	<p>Living in good harmony with nature and revitalizing communities through use of HORIBA Blueberry Farm, "Joy & Fun"⁷ and others</p>

³ 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/> ⁴ IMS (Integrated Management System) is an integrated management system of more than one ISO and OHSAS. ⁵ UNGC: the United Nations Global Compact <https://www.unglobalcompact.org/> ⁶ HORIBA COLLEGE was started in 2009 as a place for employees to learn from each other as student and or lecturer ⁷ HORIBA Blueberry Farm "Joy & Fun" opened in April 2012 by our renting fallow fields in Takashima City, Shiga Prefecture. Our new employees get a taste of agriculture and their family members also participate in the harvesting of blueberries and vegetables.

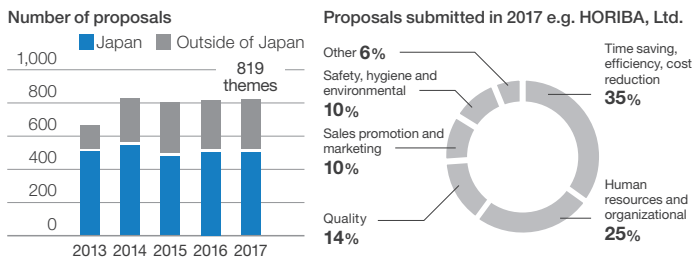
Organization

Organizing a Super Dream Team

Under the slogan "HORIBA Group is One Company." since 2004, HORIBA has promoted "Balanced Management" through adoption of a matrix model of organization to manage the group companies as a single integrated entity. With the aim of further developing this system, "HORIBA Stained Glass Project" promotes diversity through realizing diverse abilities and characteristics as a Super Dream Team. We are accelerating the reinvention of our existing businesses and the creation of new businesses in keeping with the Mid-Long Term Management Plan, MLMAP2020.

BlackJack Project

The BlackJack Project is HORIBA's unique operational improvement initiative which began in 1997 with the objective of changing the awareness and activities of employees. From the outset, a dedicated internal team worked to promote this initiative. The project was expanded to include overseas group companies in 2006. From 2007, we held an internal World Cup competition of candidate proposals from each country where we operate. This annual competition 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 most important initiatives to realize a Super Dream Team. In 2017 we celebrated the 20th anniversary of the project and the cumulative number of submitted suggestions and proposals exceeded 8,000. The BlackJack Project is now an essential aspect of HORIBA's corporate culture in which employees take an initiative in reforming themselves. It is also an excellent way for the management to understand the realities of our workplaces. It is thus an important initiative supporting HORIBA's current strong operating results.



Balanced management attained through a matrix model of 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. Even if one segment is in a slow business environment, we have continued investment in each segment by flexibly using management resources; this has helped us to achieve sustained growth. This framework has enabled our 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

Adoption of the LAQUA to unify testing method at HORIBA's reagents factories

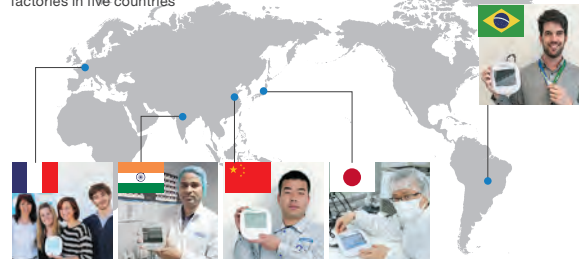
(Theme of the Gold Award in BlackJack Award World Cup 2017)

In HORIBA's Medical-Diagnostic Instruments & Systems segment, reagents are produced in five countries worldwide. In order to minimize variability in component measurement such as pH data, Mr. Toshiyuki Tsujimoto has unified the measurement devices and the method of measurement, using HORIBA's own pH Meter "LAQUA." As a result, dispersion among the plants in values measured in the reagent production process has been lowered. Moreover, based on the experiences earned during standardizing the process, the project team submitted proposals to customers on the method of effective reagent testing, which resulted in improvements both at factories and in products.



Award winner, Toshiyuki Tsujimoto (right) Production Division, HORIBA, Ltd.

Unifying the testing method in five reagent factories in five countries



structure an

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 diverse talents and skillsets, regardless of their gender, age, nationality, disability, or other differences.

We have promoted activities aimed at more diversity in our workforce and at work style renovation, and in 2017 the Stained Glass Project Office was launched to further promote the activities.

Three pillars of the Stained Glass Project

1	2	3
Advance HORIBA's strength so as to promote diversity	Make more flexible choices in work style	Improve productivity

Progress of the Stained Glass Project

STEP 1 2014~	Start activities Initial focus on engagement of women at workplace
STEP 2 2015~	Start "work style renovation" workshop Theme: Change in individual behavior
STEP 3 2017~	Organize a dedicated team to connect the management, HR team and workplaces Activities to make the best use of characteristics of each workplace and each organization

Major initiatives in 2017

"Kaeru" Meetings

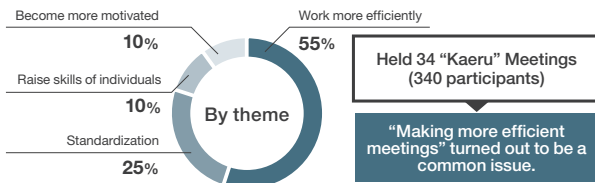
"Kaeru" Meetings, teams practice the three "Kaeru" (a Japanese term). At the meetings, participants work together from identifying issues they feel important personally or work as a team to draw up an action plan for a solution. These discussions were rooted in their workplaces, and thereby are effective to improve productivity and realize a better way to work.

The three "Kaeru"



"Kaeru" meetings held for IR/PR team

Submission of 300 action plans per year



Examples of action plans

- Share their "to do list" when starting work in the morning and prioritize work to do.
- Share progress reports at the noon assembly and share more work assignments.
- Prepare a work manual and then prepare a skill map.
- Make two persons in charge of one assignment to break away the assignment to be personalized.

Initiatives to realize a flexible work style

In order to make the Stained Glass Project identify and incorporate opinions of employees in each workplaces, the working group is continuing to concentrate on self-driven action. In 2017, under the theme of "balancing work and care giving," we proactively disclosed information on Japan's long-term care support systems for the elderly and held seminars. The Stained Glass Project Office and the HR department jointly established diverse programs, in order to understand the present work conditions of employees and help them to be closer to their ideal work style, based on the results of a questionnaire on diversity and work style at HORIBA Group in Japan.



Members of a working group

Initiatives in 2018

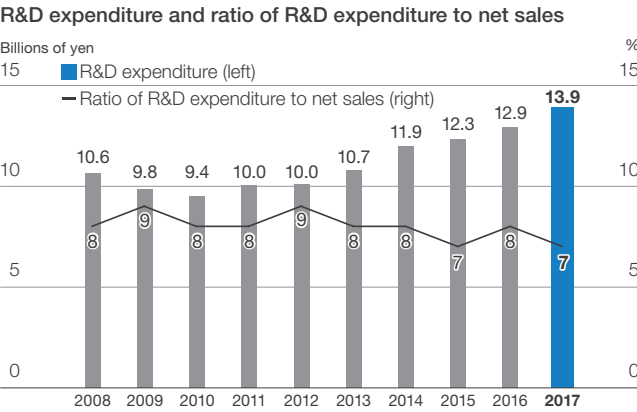
- Putting together an approach to make meetings efficient and implement it across the company
- Studying the introduction of a scheme to make more flexible choices in work style that matches each workplace
- Enhancing the human resource system and the training system for promoting diversity in human talent

Technologies

Continuous 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 that 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.

Application of core technologies to products

HORIBA focuses its R&D resources on developing specific technologies in analysis and measurement and implements effective product development in the five business segments of different markets by applying the obtained core technologies.

In product development, we strive to provide flexible applications and to meet demands from customers and society crossing over the boundaries of the business segments.

HORIBA's major technologies (by scale of sales)		Automotive Test Systems	Process & Environmental	Medical-Diagnostic	Semiconductor	Scientific
Infrared measurement	Technology to analyze components in gas in real time					
Gas flow control	Technology to measure and control the flow of fluids instantly					
Particle analysis	Technology to measure particles (diameter, number, weight, and components)					
Spectroscopic analysis	Technology to analyze materials by using ultraviolet light, visible light, and near-infrared light					
Liquid analysis	Technology to measure components or characteristics in liquid, such as pH, sodium, acids, alkalies, and glucose.					

External recognition of HORIBA's technologies

HORIBA's technologies, in particular its performance and originality, have been highly recognized and evaluated by many external institutions, as we have long pursued advanced technologies by making continuous investment. Being proud of its origin as a start-up in Kyoto, we will continue to refine unique technologies and launch competitive products.

HORIBA, Ltd. received the 2017 Invention Award of the National Commendation for Invention from the Japan Institute of Invention and Innovation

HORIBA received the award for the EGR(Exhaust Gas Recirculation) rate measuring device that enables the rapid and accurate measurement. The National Commendation for Invention was established in 1919 in order to contribute to technological advancement and industrial development in Japan, and has awarded to inventors for their actual outstanding achievement or creators for inventions with strong future potential. This innovation also won the GOLD AWARD in the 2012

HORIBA Group IP (Intellectual Property) World Cup, contested globally by the excellent inventions of the HORIBA Group.



Award winner: Tomoshi Yoshimura
(HORIBA, Ltd. Research & Development Division)

HORIBA STEC, Co., Ltd. has obtained the accreditation to ISO/IEC 17025 for gas mass flow calibration

HORIBA STEC, Co., Ltd. has obtained the ISO/IEC 17025 accreditation for calibration of gas mass flow at the Kyoto Fukuchiyama Technology Center. This accreditation allows us to hold and use an accredited top-level gas mass flow standard in the company. With the world-wide growing demand for credibility of products or services, we are increasingly asked for a certificate of testing or calibration issued by a laboratory accredited under this international standard. We will take advantage of this accreditation for our manufacturing process to improve performance and reproducibility of mass flow controllers, indispensable in the semiconductor industry.

HORIBA STEC, Co., Ltd. Kyoto Fukuchiyama Technology Center



SOCIAL

HORIBA MIRA Limited participated in establishing ISO 26262, an international standard, for functional safety of vehicles

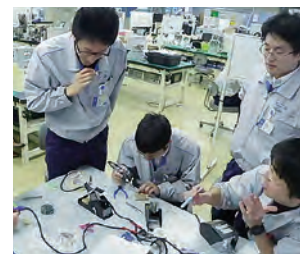
HORIBA MIRA Limited in U.K. participated in establishing an international standard, ISO 26262, to contribute to ensuring automotive safety. This standard, published in November 2011, defines functional safety for electrical and/or electronic systems in vehicles. Functional safety is a concept to minimize risks through safety measures such as a fail-safe. For example, a fail-safe vehicle responds in a way that will cause no or minimal harm to traffic participants such as including drivers, passengers. Functional safety is increasingly important in ensuring safety of electric vehicles and autonomous vehicles.



BlackJack-Project

For handing down "genuine" HORIBA's technologies (Sengu) Project H -Create a new standard-

We advance the cultivation of high-potential engineers who can work insightfully on product development and be the next generation of HORIBA leaders. For example, some engineers go through the entire process of upgrading core technology from setting a theme to applying their achievements to manufacturing in practice, with mentoring from senior engineers. Through "Handing down of technologies (Sengu in Japanese)" including approach to principles, young engineers in HORIBA are taking on challenges inquisitively and eagerly to advance HORIBA's core technologies.



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.

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

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

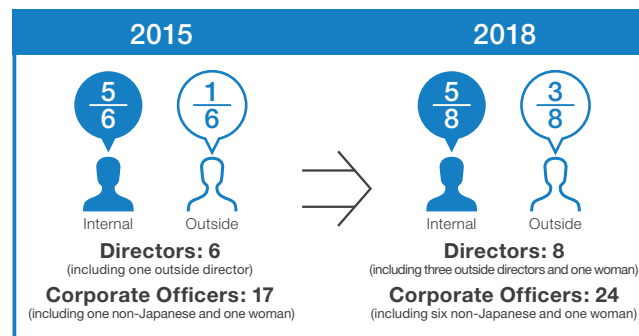
Corporate Governance System

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

As of May 2018, the Board of Directors is comprised of eight members, including three independent outside directors, including one woman. In 2017, 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 2018), 24 corporate officers, including one woman and six non-Japanese, play an active role in Japan and overseas.

As of May 2018, the Board of Corporate Auditors is comprised of three corporate auditors, including one independent outside auditor. The Board of Corporate Auditors held 13 meetings in 2017. 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 Executive Vice Chairman & Group COO). (See the list of directors, corporate auditors and corporate officers on page 45).



Evaluation of the Board of Directors’ Effectiveness

During November and December of 2017, we distributed to all seven directors a questionnaire concerning the Board of Directors’ effectiveness and received response from all of them. The main questions were: 1) three roles and responsibilities of the Board, as per the Corporate Governance Code Basic Rule 4; 2) structure of the Board (number of members, diversity, knowledge, experience, ability, etc.); and 3) number of meetings held. In addition, talks took up 4) hours of discussion; 5) issues of discussion; and 6) subjects of discussion.

As a result, the directors judged that the effectiveness of the Board was confirmed to be satisfactory as it was.

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.

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 based on the perspective of “Fair Disclosure”, and ask for their understanding and continued support.

① (Japanese only)

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.

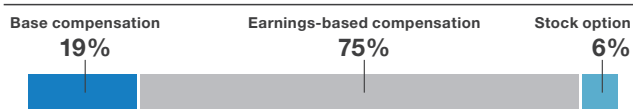
② (Japanese only)

Directors’ compensation

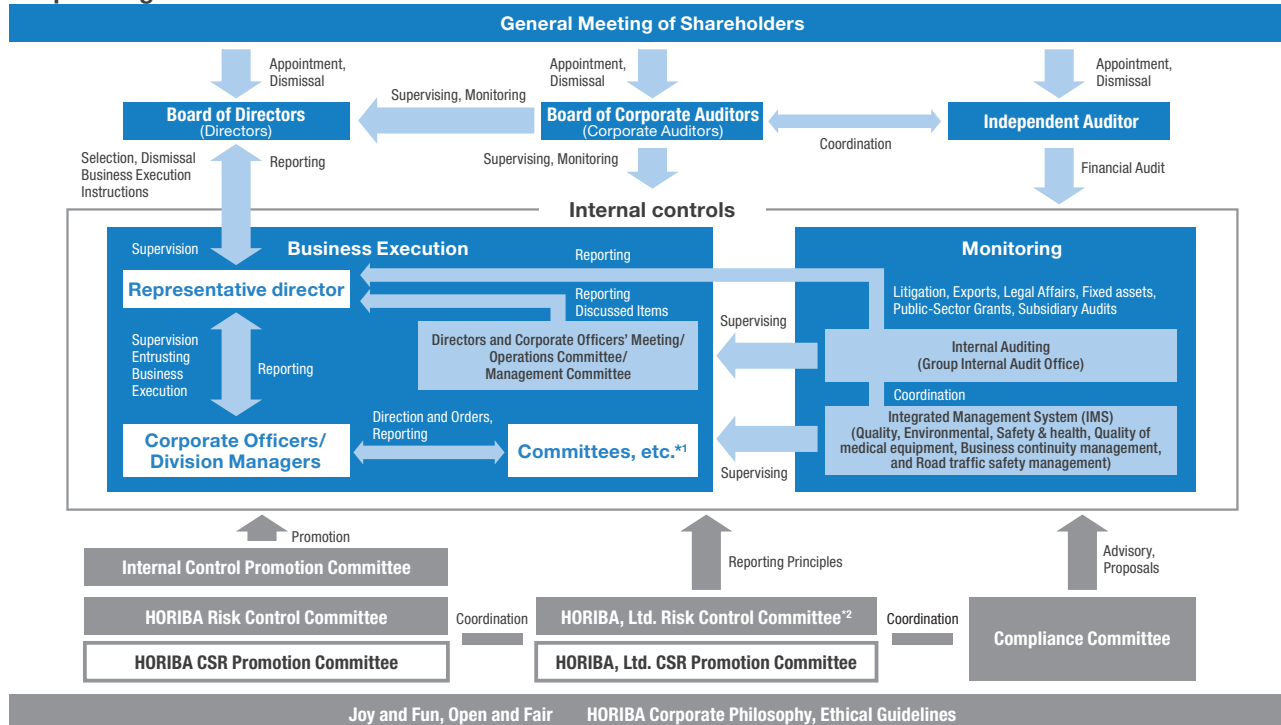
Compensation for directors consists of base compensation (regular fixed-amount salary), earnings-based salary (bonus) linked to the earnings results of each fiscal year, and stock options (retirement allowance) linked to medium to long-term earnings performance. Compensation for outside directors, however, 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 2017 was 667 million yen in total.

Breakdown of directors’ compensation (excluding outside directors)



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.

Board of directors and corporate auditors (as of May 1, 2018)

Chairman & Group CEO

Atsushi Horiba

1971 Joined Olson Horiba Inc. (U.S.)
 1972 Joined HORIBA, Ltd. then held positions such as General Manager of Overseas Technology Department and General Manager of Overseas Headquarters
 1982 Appointed as HORIBA's Director
 1992 Appointed as President and CEO
 2005 Appointed as Chairman, President and CEO
 2018 Appointed as Chairman & Group CEO up to the present

Executive Vice Chairman & Group COO

Juichi Saito

1982 Joined HORIBA, Ltd. then held positions such as General Manager of Engine Measurement Planning & Development Department and President of HORIBA Instruments Incorporated. (U.S.)
 2005 Appointed as HORIBA's Director
 2008 Appointed as Vice President of HORIBA STEC Co., Ltd. (Japan)
 2013 Appointed as HORIBA's Executive Vice President
 2016 Appointed as HORIBA's Executive Vice President and Representative Director
 2018 Appointed as Executive Vice Chairman & Group COO up to the present

President & COO

Masayuki Adachi (Dr. Engineering)

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
 2006 Appointed as HORIBA's Corporate Officer
 2007 Appointed as President of HORIBA International Corporation (U.S.)
 2014 Appointed as HORIBA's Director
 Appointed as President of HORIBA Jobin Yvon S.A.S. (now HORIBA FRANCE SAS)
 2016 Appointed as Chairman of supervisory board of HORIBA Jobin Yvon S.A.S. (now HORIBA FRANCE SAS) up to the present
 Appointed as HORIBA's Senior Managing Director
 2018 Appointed as President & COO up to the present

Managing Director, General Manager of General Administration Division

Masao Okawa

1988 Joined the Bank of Japan then held positions such as Chief Representative in Frankfurt and Kyoto Branch Manager
 2017 Joined HORIBA, Ltd. and was appointed as Senior Corporate Officer
 2018 Appointed as Managing Director up to the present

Director, Board Leader of GLOBAL ATS BOARD

Takashi Nagano

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)
 2005 Appointed as HORIBA's Corporate Officer
 2013 Appointed as CEO of HORIBA Europe GmbH (Germany)
 2014 Appointed as President of HORIBA KOREA Ltd. (South Korea)
 2016 Appointed as HORIBA's Director up to the present
 Appointed as Chairman of HORIBA KOREA Ltd. (South Korea) up to the present
 2018 Appointed as Board Leader of GLOBAL ATS BOARD up to the present

Corporate officers (as of May 1, 2018)

Executive Corporate Officer

Jai Hakhu (Dr. Engineering) Chairman & CEO of HORIBA Instruments Incorporated (U.S.)
 President of HORIBA ABX SAS (France)

Senior Corporate Officer

Hideyuki Koishi President of HORIBA STEC Co., Ltd. (Japan)
Yuichi Muroga President of HORIBA Techno Service Co., Ltd. (Japan)
George Gillespie (Dr. Engineering) Executive Chairman of HORIBA MIRA Limited (U.K.)

Corporate Officer

Ken Mitera Executive Vice President of HORIBA Instruments Incorporated (U.S.)
James Thepot President of HORIBA FRANCE SAS
Christian Dubuc Executive Vice President of HORIBA ABX SAS (France)
Atsushi Nakamine Deputy General Manager of Global Business Division
Hiroshi Kawamura Chief Director & President Manager of Quality Management Center
Hiroo Chihara General Manager of Production Division
Tadao Nakamura Chief Director & President of HORIBA Instruments (Shanghai) Co., Ltd.
 Chief Director & President of HORIBA (China) Trading Co., Ltd.

Director (Outside), Independent Director

Director (Outside), Independent Director

Director (Outside), Independent Director

Masahiro Sugita

- 1967 Joined the Bank of Japan then held positions such as Matsumoto Branch Manager and Director-General of the International Department
- 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 the 77 Bank, Ltd. up to the present

Corporate Auditor

Jiko Higashifushimi

- 1988 Appointed as Higashi-Kurume Branch Manager of Saitama Bank (now Resona Bank, Limited.)
- 1993 Entered Shorenin Religious Corporation then held a position as its Head Deacon
- 2003 Appointed as the Representative Presiding Director and Head Priest of the Shorenin Religious Corporation up to the present
- 2016 Appointed as HORIBA's Director (Outside) up to the present

Corporate Auditor (Outside)

Sawako Takeuchi (Dr. Engineering / Economics)

- 1988 Appointed as Deputy Director, Master of International Business (MIB) Graduate Program, Ecole Nationale des Ponts et Chaussées (France)
- 1998 Appointed as Associate Professor, School of Engineering, University of Tokyo Graduate School
- 2004 Appointed as Urban Development Sector (Economist / Analyst), Asia-Pacific Division, World Bank
- 2005 Appointed as Special Assistant to the Ministry of Foreign Affairs and as Visiting Professor, Graduate School of Engineering, Kyoto University
- 2011 Appointed as President, Japan Cultural Institute in Paris (Japan Foundation)
- 2016 Appointed as HORIBA's Director (Outside) up to the present
Appointed as Advisor to the Ministry of Education, Culture, Sports, Science, and Technology
- 2017 Appointed as Specially Appointed Professor (currently Invited Professor), Yamagata University Faculty of Engineering up to the present

Corporate Auditor (Outside), Independent Auditor

Toshihiko Uno

- 1974 Joined HORIBA, Ltd. then held positions such as General Manager of Hardware Development and General Manager of Production Center
- 2002 Appointed as HORIBA's Corporate Officer
- 2004 Appointed as HORIBA's Senior Corporate Officer
- 2011 Resigned as HORIBA's Senior Corporate Officer
- 2012 Appointed as HORIBA's Corporate Auditor up to the present

Kanji Ishizumi

- 1971 Joined the Ministry of International Trade and Industry (now the Ministry of Economy, Trade and Industry)
- 1975 Registered as Attorney at Law
- 1981 Appointed as representative partner of the Chiyoda Kokusai Law Offices up to the present
- 1995 Appointed as HORIBA's Corporate Auditor (Outside) up to the present

Keisuke Ishida

- 1978 Appointed as Representative Director and CEO, SHASHIN KAGAKU CO., LTD.
- 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.
- 2005 Appointed as HORIBA's Corporate Auditor (Outside) up to the present
- 2016 Appointed as Advisor, SK-Electronics Co., Ltd. up to the present

Toshiya Higashino

President COO of HORIBA Instruments Incorporated (U.S.)

Yasuo Yamashita

Deputy General Manager of General Administration Division

Hiroshi Nakamura (Dr. Engineering)

President of HORIBA Europe GmbH (Germany)

Arnaud Pradel

Executive Vice President of HORIBA ABX SAS (France)

Dan Horiba

President of HORIBA Advanced Techno Co., Ltd.

Junior Corporate Officer

Narihiro Oku

Deputy General Manager of Research & Development Division (Medical)

Hitoshi Motokawa

General Manager of Sales Division

Hideyuki Nishibun

Deputy General Manager of Global Business Division

Haruko Nozaki

Principal of HORIBA COLLEGE, CSR

Tsukasa Satake

Deputy General Manager of Research & Development Division, Tokyo based

Kenichi Obori

Research & Development Division, Detector Technology

Akio Kinoshita (Dr. Engineering)

Deputy General Manager of Global Business Division, Automotive Technology

Masashi Nishimura

Deputy General Manager of Production Division

Message from an Outside Director,
Dr.Sawako Takeuchi view's on

HORIBA's diversity and unique corporate governance

For the past two years since I've been appointed as an outside director in March 2016 at the shareholder's meeting, I have visited several global sites of HORIBA to see sources of strength of this group.

Seen from my experience both in Europe and in Japan, particularly in Kyoto, I am trying to provide my unique insights and knowledge to HORIBA.

As current technologies are being transformed so rapidly, many kinds of business opportunities are emerging. In such a momentum, it is important to allow HORIBA to develop new ground as a world-leading analytical and measurement manufacturer. I am committed in exploring such issues among the management team.

HORIBA's management and operation of the Board of Directors

At the Board of Directors meetings, we discuss quite openly multiple topics such as future M&As and investment, in light of global strategies, timing. As outside director, we try to identify investment opportunities as quickly as possible to be engaged in in-depth discussions on risks and opportunities. This is the best way to leverage existing values. While keeping cautious and prudent consideration, it is important to take future decisions in an appropriate timing. There is no other way than accelerate globalization, therefore, we should, take innovative approaches to develop global talents, pursuing higher corporate value.

Advanced promotion system to develop global talents

In January 2018, HORIBA started a new management team with Mr. Horiba and Mr. Saito as Group CEO and Group COO being in charge of leading global management respectively, along with Dr. Adachi as President of HORIBA, Ltd. to pursue a further elaboration of core technologies to match with global trends. This change is meant to upright multiple antennas both in Japan and overseas. Under these multiple heads, we can integrate highly trained multinational talents in HORIBA, instead of looking for locally trained talents from the vantage point of "Japan's" HORIBA. Development and promotion of global talent is the biggest challenge HORIBA facing today. I encourage HORIBA's global evolution from this perspective.

HORIBA's management performing a symphony with "Joy and Fun" spirits

I admire this motto "Joy and Fun". It is a source of HORIBA's corporate value and innovation. In this line, we can push more individual initiatives and diversity. I currently teach "Development of Music forms in relation to Western civilization" at music college. If I may simulate HORIBA's corporate culture with music, Joy and fun is a "Basso Continuo (continuous base)" to generate a modern dynamic symphony at HORIBA. Looking back to the music history, in the medieval era, there was no harmony and the music was dominated by the church. Through Renaissance period, the music was transformed into a multi-sound, more harmonized with vibrant dialogues. This created a movement toward symphony orchestra. An orchestra cannot be realized without a dynamic "Basso Continuo" to awaken a melody. I find this model similar to HORIBA. HORIBA is a unique company to generate a big value if each individual can perform "Joy and Fun" spirits to build strong amicability and the management team leads a strong melody with that base.



Sawako Takeuchi
(Dr. Engineering / Economics)

In 1988, Dr. Takeuchi started working as Deputy Director of Master of International Business (MIB) Graduate Program, Ecole Nationale des Ponts et Chaussées (France).

After rendering her services in France, she went back to Japan to work as Chief Researcher of Long-Term Credit Bank of Japan Research Institute. Then, she started to teach at School of Engineering, University of Tokyo Graduate School. Thereafter, she worked for international urban projects at World Bank. In 2005 she became Special Assistant to the Ministry of Foreign Affairs of Japan, while working as Visiting Professor of Graduate School of Engineering, Kyoto University. For five years, she worked in Europe as President of Japan Cultural Institute in Paris (Japan Foundation). In 2016 she became Advisor to the Ministry of Education, Culture, Sports, Science, and Technology. In the same year, she was appointed as an Outside Director at HORIBA. She is currently an Invited Professor of Yamagata University Faculty of Engineering and a distinguished visiting professor at Tokyo College of Music. She holds two doctorate degrees in engineering and economics.

Outside Directors' Activities in 2017

Sawako Takeuchi
(Dr. Engineering / Economics)

Takeuchi attended 11 meetings out of a total of 12 Board meetings held in 2017. She visited HORIBA FRANCE SAS to understand its operation. She provided valuable opinions and viewpoints on HORIBA's management, based on her academic background as a holder of a doctor's degree in engineering, and her international experience both in France where HORIBA's major operations are located and in other countries.



Masahiro Sugita

Sugita attended 11 meetings out of a total of 12 Board meetings held in 2017. He has vast international experience and deep insight and knowledge on finance and economy. He has also accumulated experience as a director and auditor of other companies, providing precious opinions and viewpoints on HORIBA's management.



Jiko Higashifushimi

Higashifushimi attended 11 meetings out of a total of 12 Board meetings held in 2017. He provided advice from an ethical perspective, based on his far-reaching ideas as Representative Presiding Director and Head Priest of the Shorenin Religious Corporation, as well as precious opinions and viewpoints on HORIBA's management based on his work experience at a financial institution.

Financial Data

	2007.12	2008.12	2009.12	2010.12	2011.12	2012.12	
For the Year:							
Net sales	144,283	134,248	104,538	118,556	123,456	117,609	
Operating costs and expenses	127,753	123,290	99,394	106,256	108,549	105,857	
Operating income	16,530	10,958	5,144	12,299	14,906	11,751	
Net income attributable to owners of parent	8,691	6,039	3,161	7,927	8,664	7,396	
Capital expenditures	9,336	6,645	4,534	4,033	4,670	7,882	
Depreciation and amortization	4,161	4,955	4,573	4,523	4,146	3,743	
Research and development expenses	9,474	10,662	9,831	9,480	10,060	10,092	
At Year-End:							
Total assets	154,367	133,279	129,580	137,290	144,649	153,836	
Cash and cash equivalents	20,565	22,660	27,590	34,459	35,767	38,858	
Trade notes and accounts receivable	Affiliated companies	-	63	6	1	126	4
	Other	45,873	37,330	34,505	36,425	39,249	37,516
Inventories	33,734	29,802	23,363	24,843	26,288	28,101	
Property, plant and equipment, net	24,071	23,115	23,602	22,516	22,924	28,179	
Trade notes and accounts payable	Affiliated companies	53	40	52	60	0	-
	Other	16,792	11,063	10,515	13,423	13,196	11,829
Liabilities with interest	25,177	20,984	18,348	17,128	18,358	18,083	
Shareholders' equity	80,377	76,829	79,906	84,019	90,232	99,248	
Share price at end of fiscal period(¥)	4,100	1,237	2,250	2,303	2,320	2,489	
Number of employees (consolidated)	4,976	5,146	5,133	5,202	5,448	5,530	
Per Share Information:							
Net income - basic	205.01	142.76	74.77	187.46	204.88	174.87	
Net income - diluted	204.39	142.71	74.68	187.11	204.41	174.37	
Net assets	1,892.64	1,816.96	1,889.58	1,986.77	2,133.44	2,346.45	
Cash dividends	39.00	44.00	13.00	17.00	40.00	50.00	
Financial Ratios:							
Operating income to net sales (%)	11.5	8.2	4.9	10.4	12.1	10.0	
Return on assets (%)	6.1	4.2	2.4	5.9	6.1	5.0	
Return on equity (%)	11.4	7.7	4.0	9.7	9.9	7.8	
Shareholders' equity ratio (%)	52.1	57.6	61.7	61.2	62.4	64.5	
Consolidated dividend payout ratio (%)	19.0	30.8	17.4	9.1	19.5	28.6	
Nonconsolidated dividend payout ratio (%)	30.1	30.0	30.0	30.3	30.5	37.5	

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 113.00 yen to 1.00 U.S. dollars, the rate prevailing on December 31, 2017 in Tokyo foreign exchange market.

2. HORIBA, Ltd. and its domestic consolidated subsidiaries had formerly recognized revenue mainly on a shipping basis. However, starting from the fiscal 2016, HORIBA, Ltd. and its domestic consolidated subsidiaries changed its revenue recognition method to recognize revenue on a completion date of installation basis or a delivery date basis under the terms and conditions of the relevant contracts. The amounts in or before the fiscal 2015 are not retrospectively revised.

2013.12	2014.12	2015.12	2016.12	2017.12	2017.12
Millions of yen					Thousands of U.S. dollars
138,136	153,065	170,898	170,093	195,399	\$ 1,729,194
124,402	135,851	151,526	151,593	168,565	1,491,725
13,733	17,214	19,372	18,499	26,834	237,469
8,999	10,589	12,882	12,962	16,281	144,079
7,680	11,001	16,309	13,796	11,639	103,000
4,279	4,905	6,110	6,816	7,534	66,672
10,774	11,986	12,341	12,933	13,911	123,106
Millions of yen					Thousands of U.S. dollars
189,269	207,335	231,032	239,657	265,920	\$ 2,353,274
49,246	51,109	47,859	51,940	58,333	516,221
25	149	2	7	12	106
47,386	52,097	54,769	53,717	60,140	532,212
33,085	34,838	35,717	40,289	45,573	403,300
33,326	39,441	56,978	61,977	68,701	607,973
-	20	-	77	91	805
16,409	15,385	17,638	19,935	23,180	205,132
24,577	28,412	45,227	47,153	42,496	376,070
114,209	123,924	129,581	132,654	150,282	1,329,929
3,590	4,015	4,695	5,410	6,790	U.S. dollars 60.08
5,787	5,965	6,831	7,149	7,399	
Yen					U.S. dollars
212.76	250.28	305.73	307.74	386.30	\$ 3.41
212.01	249.28	304.36	306.38	384.67	3.40
2,699.88	2,928.82	3,078.40	3,148.70	3,565.00	31.54
60.00	67.00	70.00	85.00	116.00	1.02
9.9	11.2	11.3	10.9	13.7	
5.2	5.3	5.9	5.5	6.4	
8.4	8.9	10.2	10.0	11.5	
60.3	59.8	56.1	55.4	56.5	
28.2	26.8	22.9	27.6	30.0	
48.9	38.5	35.1	46.7	53.8	

Computations:

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

Net income per share (Yen) = 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 (Yen) = 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

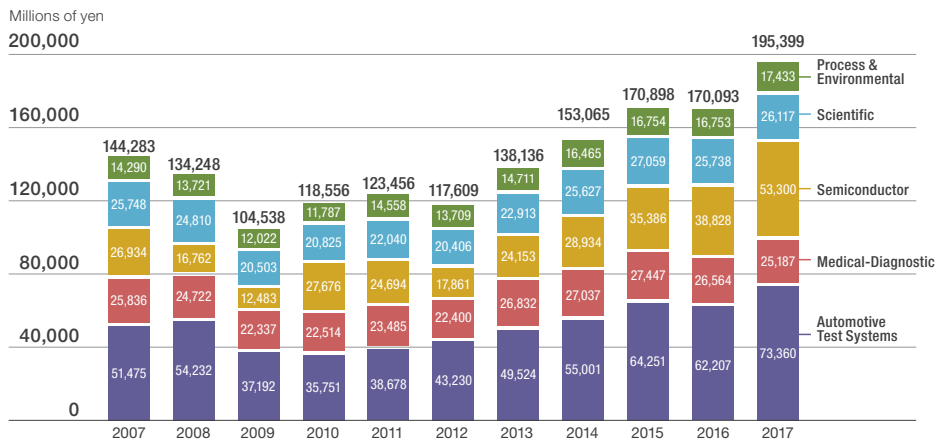
Shareholders' equity ratio (%) = 100 x shareholders' equity / total assets

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)

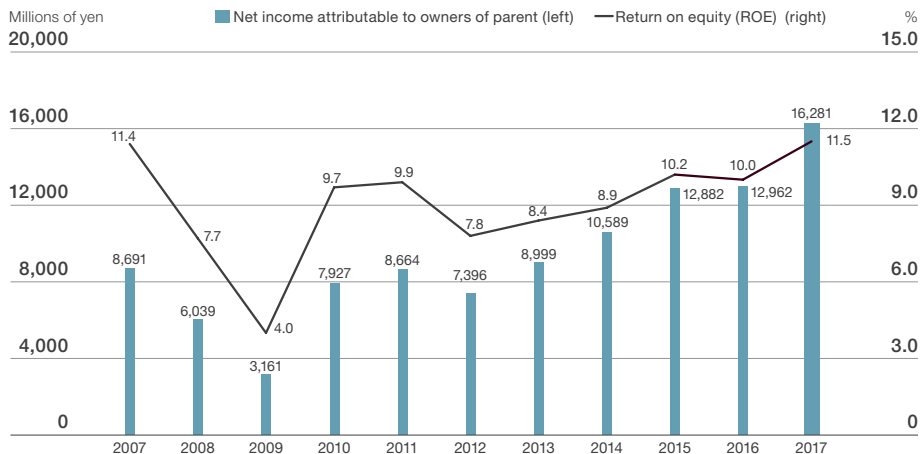
Eleven-Year Summary

Net sales by segment



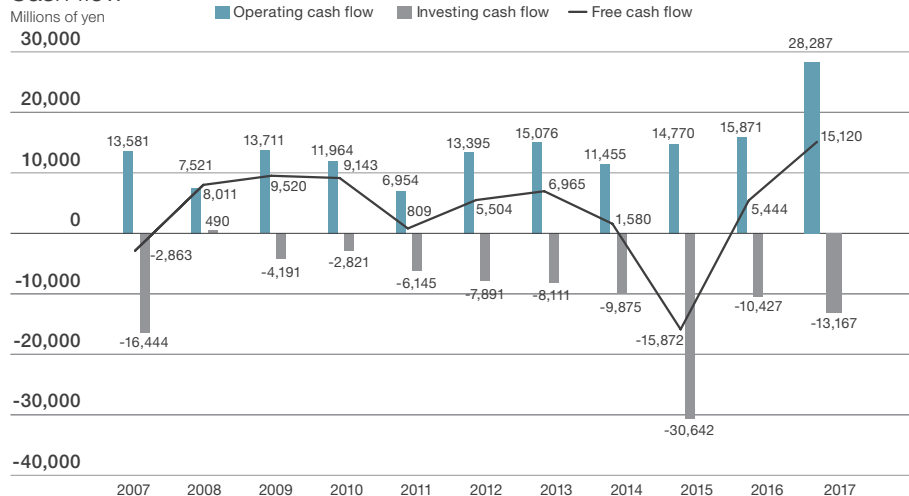
In 2017 HORIBA achieved a significant growth in sales, renewing a record high. This was driven by the Automotive Test Systems segment and the Semiconductor Instruments & Systems segment, which benefited from the tightened vehicle emission gas regulations, and from growth in investment by semiconductor manufacturers, respectively.

Net income attributable to owners of parent and ROE



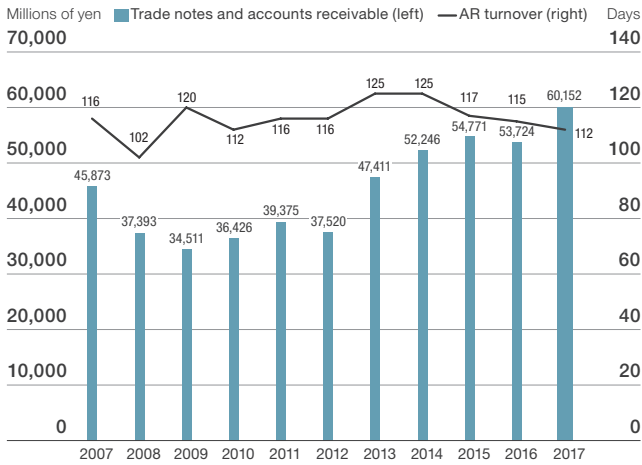
HORIBA posted a year-on-year increase in operating income and a record-high net income attributable to owners of the parent. ROE of 11.5% means that HORIBA achieved its MLMAP2020 target of 10% or more in ROE for the third consecutive year.

Cash flow

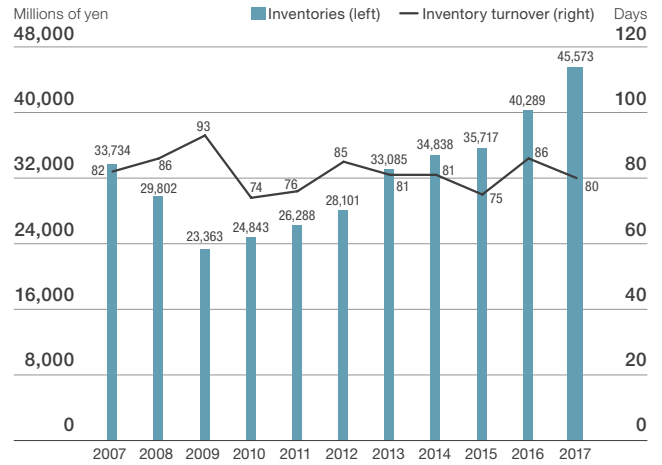


In 2017 HORIBA recorded positive free cash flow of 15.1 billion yen due to an increase in operating cash flow that stemmed mainly from an increase in earnings of the Semiconductor Instruments & Systems segment, which more than offset continued aggressive investment such as for capital spending by HORIBA MIRA Limited (U.K.), for expansion of the Aso Factory and other projects.

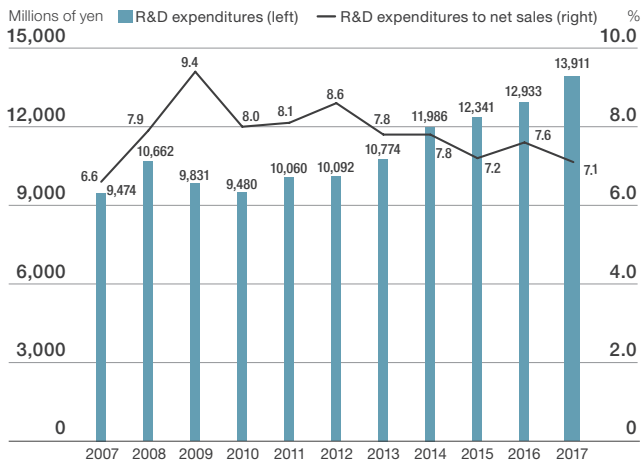
Accounts receivable (AR) and AR turnover (days)



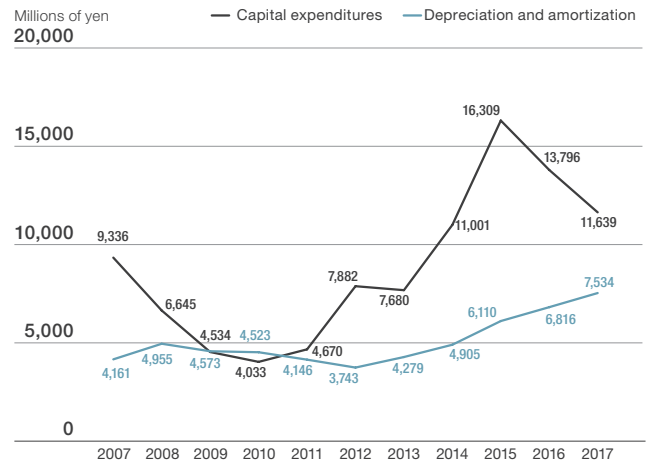
Inventories and inventory turnover (days)



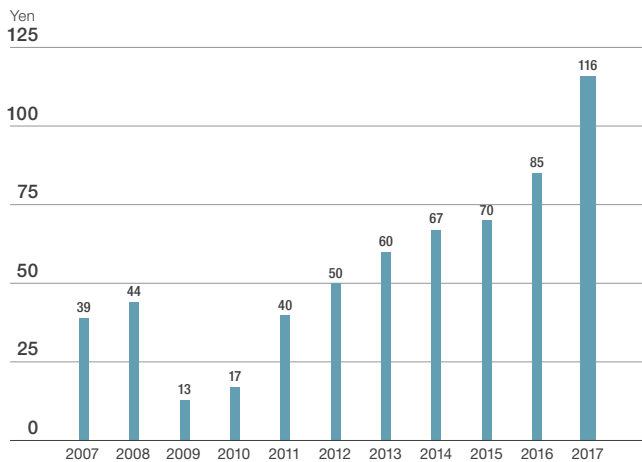
R&D expenditures and R&D expenditures to net sales



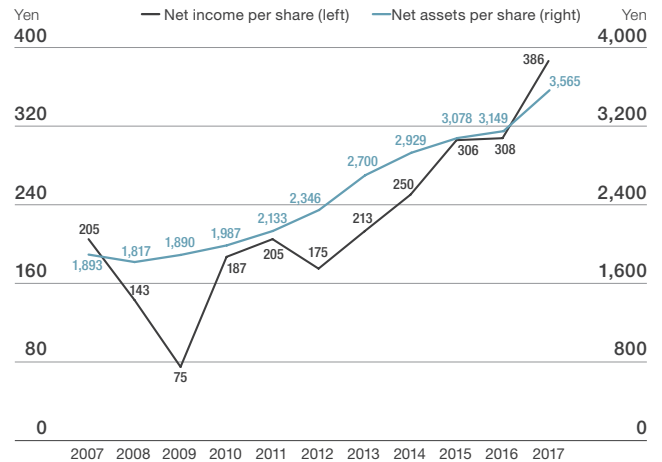
Capital expenditures and depreciation and amortization



Cash dividends per share



Net income per share and net assets per share



HORIBA, Ltd. and Consolidated Subsidiaries | Consolidated Financial Review

With regard to the global economy in the fiscal year ended December 31, 2017, the United States continued its economic recovery, on the back of an improvement in the employment environment. In Europe, a modest economic recovery was sustained despite some impacts from geopolitical risks and uncertainties over policies. Among emerging countries, China's economy is improved with support by various government policies, and India's economy is improved as well by domestic demand.

In Japan, a corporate earnings upswing combined with a better employment environment and healthier consumer spending status contributed to a moderate economic recovery trend.

The annual average exchange rates for 2017 were 112.16 yen against the U.S. dollar and 126.70 yen against the euro, representing year-on-year depreciation of 3.0% against the U.S. dollar and depreciation of 5.1% against the euro.

In the analytical and measurement equipment industry, investment by semiconductor manufacturers remained at a high level throughout the year, following the trend in fiscal 2016, and demand for semiconductor production equipment expanded, on the back of an increase in demand for semiconductors such as memory stemming from the increasing data processed in data center and the spread of AI and IoT.

In the automotive industry, against the backdrop of the introduction of new emission gas regulations in Europe and the planned introduction of new regulations in Japan in 2018, demand for emission measurement systems has expanded. In addition, there were rising expectations for next-generation mobility incorporating vehicle electrification, as exemplified by hybrid and electric vehicles, and automatic driving technology. This has led automakers and related institutions to be more aggressive in their capital expenditure and R&D investment.

In the scientific analysis equipment industry, demand in general was sluggish but demand for leading-edge scientific analysis equipment was at a high level in China. At the same time, demand improved somewhat in the second half of 2017, mainly in Europe and the United States.

Under such business environment, HORIBA, Ltd. ("the Company") and its consolidated subsidiaries (together "the HORIBA Group" or "HORIBA" as a consolidated group), implemented various measures to strengthen each segment in the current fiscal year.

As a result, HORIBA increased net sales of 195,399 million yen (up 14.9% y-o-y), operating income of 26,834 million yen (up 45.1%), and net income attributable to owners of parent of 16,281

million yen (up 25.6%).

Financial Position

As of December 31, 2017, total consolidated assets were ¥265,920 million, up ¥26,262 million from December 31, 2016. 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 operating result in the Automotive Test Systems segment and the Semiconductor Instruments & Systems segment.

Total consolidated liabilities increased by ¥8,588 million from the previous year to ¥115,054 million.

Total consolidated net assets amounted to ¥150,866 million, up ¥17,674 million from December 31, 2016, due mainly to an increase of retained earnings.

Cash Flows**(Cash Flow from Operating Activities)**

Net cash provided by operating activities amounted to ¥28,287 million, compared to ¥15,871 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 ¥13,167 million, compared to ¥10,427 million used in the previous year, due mainly to payments for purchases of property, plant and equipment in Japan, Europe and Americas.

(Cash Flow from Financing Activities)

Net cash used in financing activities amounted to ¥9,044 million, compared to ¥451 million used in the previous year. This was mainly attributable to partial repayments of bank loans as a result of group financing.

As a result, there was a net increase of ¥6,393 million in cash and cash equivalents to ¥58,333 million as of December 31, 2017.

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

HORIBA conducts business activities in many countries around the world, including Americas, 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.

Consolidated Balance Sheets

HORIBA, Ltd. and Consolidated Subsidiaries
For the years ended December 31, 2016 and December 31, 2017

Thousands of
U.S. dollars
(Note 1)

ASSETS	Millions of yen		Thousands of U.S. dollars (Note 1)
	12/2016	12/2017	
Current assets:			
Cash and cash equivalents.....	¥51,940	¥58,333	\$516,221
Trade notes and accounts receivable (Note 4)			
Affiliated companies.....	7	12	106
Other.....	53,717	60,140	532,212
Allowance for doubtful receivables.....	(842)	(788)	(6,973)
Marketable securities (Note 4,5).....	200	1,400	12,389
Inventories (Note 6).....	40,289	45,573	403,300
Deferred tax assets (Note 14).....	4,160	4,331	38,327
Other current assets.....	7,339	8,485	75,088
Total current assets.....	156,812	177,487	1,570,681
Property, plant and equipment (Note 17):			
Land (Note 7).....	13,065	13,736	121,557
Buildings and structures.....	48,850	54,528	482,548
Machinery, equipment and vehicles (Note 7).....	20,307	24,166	213,858
Construction in progress.....	3,453	3,468	30,690
Other property, plant and equipment.....	15,768	16,208	143,433
Total.....	101,445	112,109	992,115
Accumulated depreciation.....	(39,468)	(43,408)	(384,141)
Net property, plant and equipment.....	61,977	68,701	607,973
Investments and other noncurrent assets:			
Investment securities (Note 4,5).....	8,472	10,955	96,946
Investments in nonconsolidated subsidiaries and affiliates.....	46	45	398
Deferred tax assets (Note 14).....	1,726	1,549	13,707
Allowance for doubtful accounts.....	(66)	(77)	(681)
Other investments and other assets.....	2,764	2,861	25,318
Total investments and other noncurrent assets.....	12,943	15,334	135,699
Intangibles:			
Goodwill (Note 17).....	387	194	1,716
Software.....	4,082	3,298	29,185
Other intangibles.....	3,453	904	8,000
Total intangibles.....	7,923	4,397	38,911
Total assets.....	¥239,657	¥265,920	\$2,353,274
LIABILITIES AND NET ASSETS			
Current liabilities:			
Short-term loans (Note 4,7).....	¥11,449	¥7,773	\$68,787
Current portion of long-term debt (Note 4,7).....	1,158	718	6,353
Trade notes and accounts payable (Note 4)			
Affiliated companies.....	77	91	805
Other.....	19,935	23,180	205,132
Accounts payable - other (Note 4).....	14,041	14,888	131,752
Accrued income taxes (Note 4).....	1,838	6,277	55,548
Advances received.....	10,162	13,519	119,637
Deferred tax liabilities (Note 14).....	76	61	539
Accrued bonuses to employees.....	914	1,464	12,955
Accrued bonuses to directors and corporate auditors.....	58	63	557
Reserve for product warranty.....	1,672	1,932	17,097
Provision for loss on disaster.....	227	49	433
Other current liabilities.....	4,462	4,357	38,557
Total current liabilities.....	66,076	74,378	658,212
Long-term liabilities:			
Long-term debt (Note 4,7).....	34,545	34,005	300,929
Deferred tax liabilities (Note 14).....	931	2,036	18,017
Net defined benefit liability (Note 8).....	2,191	2,145	18,982
Provision for loss on dissolution of the employees' pension fund (Note 8).....	1,247	640	5,663
Other noncurrent liabilities.....	1,474	1,848	16,353
Total long-term liabilities.....	40,389	40,675	359,955
Total liabilities.....	106,466	115,054	1,018,176
Contingent liabilities (Note 12)			
Net assets (Note 9):			
Shareholders' equity:			
Common stock.....	12,011	12,011	106,292
Authorized - 100,000,000 shares			
Issued and outstanding - 42,129,766 shares (excluding treasury stock) at 12/2016			
Issued and outstanding - 42,155,029 shares (excluding treasury stock) at 12/2017			
Capital surplus.....	18,717	18,717	165,637
Retained earnings.....	103,104	115,345	1,020,752
Treasury stock - 402,986 shares at 12/2016, and 377,723 shares at 12/2017.....	(1,588)	(1,488)	(13,168)
Total shareholders' equity.....	132,244	144,585	1,279,513
Accumulated other comprehensive income:			
Unrealized gains (losses) on available-for-sale securities.....	2,928	4,636	41,026
Foreign currency translation adjustments.....	(2,297)	1,151	10,185
Remeasurements of defined benefit plans (Note 8).....	(221)	(90)	(796)
Total accumulated other comprehensive income.....	409	5,697	50,415
Subscription rights to shares (Note 10).....	466	492	4,353
Non-controlling interests.....	71	90	796
Total net assets.....	133,191	150,866	1,335,097
Total liabilities and net assets.....	¥239,657	¥265,920	\$2,353,274

See the notes to the consolidated financial statements.

Consolidated Statements of Income

HORIBA, Ltd. and Consolidated Subsidiaries

For the years ended December 31, 2016 and December 31, 2017

Thousands of
U.S. dollars
(Note 1)

	Millions of yen		12/2017
	12/2016	12/2017	
Net sales (Note 17)	¥170,093	¥195,399	\$1,729,194
Operating costs and expenses (Note 17):			
Cost of sales.....	100,339	112,107	992,097
Selling, general and administrative expenses.....	51,254	56,457	499,619
Total operating costs and expenses.....	151,593	168,565	1,491,725
Operating income (Note 17)	18,499	26,834	237,469
Other income (expenses):			
Interest and dividend income.....	294	280	2,477
Interest expense.....	(574)	(428)	(3,787)
Foreign exchange gains (losses), net.....	(206)	(296)	(2,619)
Gain on sales of property, plant and equipment.....	33	58	513
Loss on sales of property, plant and equipment.....	(0)	(2)	(17)
Loss on disposal of property, plant and equipment.....	(219)	(199)	(1,761)
Impairment loss (Note 15,17).....	-	(2,526)	(22,353)
Gain on sales of investment securities (Note 5).....	0	0	0
Loss on valuation of investment securities (Note 5).....	(68)	(9)	(79)
Gain on sales of subsidiaries' and affiliates' stocks.....	240	-	-
Subsidy income.....	149	81	716
Provision for loss on dissolution of the employees' pension fund.....	(177)	-	-
Reversal of provision for loss on dissolution of the employees' pension fund.....	-	455	4,026
Insurance income.....	139	-	-
Loss on disaster.....	(1,098)	-	-
Reversal of foreign currency translation adjustments.....	113	-	-
Other, net.....	116	138	1,221
Total other expenses, net.....	(1,256)	(2,448)	(21,663)
Income before income taxes	17,243	24,385	215,796
Income taxes (Note 14):			
Current.....	3,372	7,647	67,672
Deferred.....	906	439	3,884
Total income taxes.....	4,278	8,086	71,557
Net income	12,964	16,298	144,230
Profit attributable to non-controlling interests	1	16	141
Net income attributable to owners of parent	¥12,962	¥16,281	\$144,079

U.S. dollars
(Note 1)

	Yen		12/2017
	12/2016	12/2017	
Per share information:			
Net income – basic.....	¥307.74	¥386.30	\$3.41
Net income – diluted.....	306.38	384.67	3.40
Cash dividends.....	85.00	116.00	1.02

Consolidated Statements of Comprehensive Income

HORIBA, Ltd. and Consolidated Subsidiaries

For the years ended December 31, 2016 and December 31, 2017

Thousands of
U.S. dollars
(Note 1)

	Millions of yen		12/2017
	12/2016	12/2017	
Net income	¥12,964	¥16,298	\$144,230
Other comprehensive income (Note 16)			
Unrealized gains (losses) on available-for-sale securities.....	304	1,708	15,115
Deferred gains or losses on hedges.....	0	-	-
Foreign currency translation adjustments.....	(4,153)	3,452	30,548
Remeasurements of defined benefit plans.....	(288)	130	1,150
Total other comprehensive income.....	(4,137)	5,291	46,823
Comprehensive income	¥8,826	¥21,589	\$191,053
(Breakdown of comprehensive income)			
Comprehensive income attributable to owners of parent.....	¥8,828	¥21,570	\$190,884
Comprehensive income attributable to non-controlling interests.....	(1)	19	168

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, 2016 and December 31, 2017

	Millions of yen										
	Shareholders' equity				Accumulated other comprehensive income						Net assets, total
	Common stock	Capital surplus	Retained earnings	Treasury stock	Unrealized gains (losses) on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustments	Remeasurements of defined benefit plans	Subscription rights to shares	Non-controlling interests	
Balance at the beginning of fiscal 2016.....	¥12,011	¥18,717	¥93,232	(¥1,730)	¥2,624	(¥0)	¥1,852	¥66	¥469	¥0	¥127,243
Cash dividends.....			(3,031)								(3,031)
Net income attributable to owners of parents.....			12,962								12,962
Purchase of treasury stock.....				(0)							(0)
Disposal of treasury stock.....			(58)	142							83
Net changes in items other than shareholders' equity.....					304	0	(4,150)	(288)	(2)	71	(4,066)
Balance at the end of fiscal 2016.....	¥12,011	¥18,717	¥103,104	(¥1,588)	¥2,928	-	(¥2,297)	(¥221)	¥466	¥71	¥133,191
Balance at the beginning of fiscal 2017.....	¥12,011	¥18,717	¥103,104	(¥1,588)	¥2,928	-	(¥2,297)	(¥221)	¥466	¥71	¥133,191
Cash dividends.....			(4,003)								(4,003)
Net income attributable to owners of parents.....			16,281								16,281
Purchase of treasury stock.....				(0)							(0)
Disposal of treasury stock.....			(37)	99							62
Net changes in items other than shareholders' equity.....					1,708	-	3,449	130	26	19	5,334
Balance at the end of fiscal 2017.....	¥12,011	¥18,717	¥115,345	(¥1,488)	¥4,636	-	¥1,151	(¥90)	¥492	¥90	¥150,886

	Thousands of U.S. dollars (Note 1)										
	Shareholders' equity				Accumulated other comprehensive income						Net assets, total
	Common stock	Capital surplus	Retained earnings	Treasury stock	Unrealized gains (losses) on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustments	Remeasurements of defined benefit plans	Subscription rights to shares	Non-controlling interests	
Balance at the beginning of fiscal 2017.....	\$106,292	\$165,637	\$912,424	(\$14,053)	\$25,911	-	(\$20,327)	(\$1,955)	\$4,123	\$628	\$1,178,681
Cash dividends.....			(35,424)								(35,424)
Net income attributable to owners of parents.....			144,079								144,079
Purchase of treasury stock.....				(0)							(0)
Disposal of treasury stock.....			(327)	876							548
Net changes in items other than shareholders' equity.....					15,115	-	30,522	1,150	230	168	47,203
Balance at the end of fiscal 2017.....	\$106,292	\$165,637	\$1,020,752	(\$13,168)	\$41,026	-	\$10,185	(\$796)	\$4,353	\$796	\$1,335,097

See the notes to the consolidated financial statements.

Consolidated Statements of Cash Flows

HORIBA, Ltd. and Consolidated Subsidiaries

For the years ended December 31, 2016 and December 31, 2017

Thousands of

U.S. dollars

(Note 1)

	Millions of yen		12/2017
	12/2016	12/2017	
Cash flows from operating activities:			
Income before income taxes.....	¥17,243	¥24,385	\$215,796
Adjustments to reconcile income before income taxes to net cash provided by operating activities:			
Depreciation and amortization.....	6,816	7,534	66,672
Impairment loss.....	-	2,526	22,353
Increase (decrease) in allowance for doubtful receivables.....	110	(75)	(663)
Increase (decrease) in net defined benefit liability.....	349	(190)	(1,681)
Increase (decrease) in provision for loss on dissolution of the employees' pension fund.....	(19)	(607)	(5,371)
Interest and dividend income.....	(294)	(280)	(2,477)
Interest expense.....	574	428	3,787
Foreign exchange losses (gains).....	42	79	699
Loss (gain) on sales of property, plant and equipment.....	(32)	(56)	(495)
Loss on disposal of property, plant and equipment.....	219	199	1,761
Loss on valuation of investment securities.....	68	9	79
Decrease (increase) in trade notes and accounts receivable.....	(5,454)	(4,514)	(39,946)
Decrease (increase) in inventories.....	(1,461)	(3,633)	(32,150)
Increase (decrease) in trade notes and accounts payable.....	3,333	2,588	22,902
Other, net.....	837	3,601	31,867
Subtotal.....	22,330	31,996	283,150
Interest and dividends received.....	298	279	2,469
Interest paid.....	(569)	(466)	(4,123)
Income taxes (paid) refund.....	(6,187)	(3,521)	(31,159)
Net cash provided by (used in) operating activities.....	15,871	28,287	250,327
Cash flows from investing activities:			
Increase in time deposits.....	(2,857)	(1,197)	(10,592)
Decrease in time deposits.....	3,014	1,395	12,345
Decrease in time deposits restricted for use.....	32	32	283
Payments for purchase of marketable securities.....	(103)	(1,901)	(16,823)
Proceeds from sales or redemption of marketable securities.....	1,414	701	6,203
Payments for purchase of property, plant and equipment.....	(13,001)	(11,664)	(103,221)
Proceeds from sales of property, plant and equipment.....	53	266	2,353
Payments for purchase of intangibles.....	(373)	(354)	(3,132)
Payments for purchase of investment securities.....	(48)	(22)	(194)
Proceeds from sales or redemption of investment securities.....	4	3	26
Proceeds from sales of stocks of subsidiaries and affiliates.....	256	-	-
Other, net.....	1,180	(427)	(3,778)
Net cash provided by (used in) investing activities.....	(10,427)	(13,167)	(116,522)
Cash flows from financing activities:			
Net increase (decrease) in short-term borrowings.....	130	(3,839)	(33,973)
Increase in long-term debt.....	3,690	-	-
Repayments of long-term debt.....	(1,078)	(1,039)	(9,194)
Repayments on finance lease obligations.....	(195)	(163)	(1,442)
Proceeds from share issuance to non-controlling shareholders.....	60	-	-
Net decrease (increase) of treasury stock.....	(0)	(0)	(0)
Cash dividends paid.....	(3,058)	(4,002)	(35,415)
Net cash provided by (used in) financing activities.....	(451)	(9,044)	(80,035)
Effect of exchange rate changes on cash and cash equivalents.....	(911)	317	2,805
Net increase (decrease) in cash and cash equivalents.....	4,081	6,393	56,575
Cash and cash equivalents at beginning of year.....	47,859	51,940	459,646
Cash and cash equivalents at end of year.....	¥51,940	¥58,333	\$516,221

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.

Yen amounts are rounded down to the nearest million. Therefore, total or subtotal amounts do not necessarily correspond with the aggregate of the 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, 2017, which was ¥113.00 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 47 (48 in fiscal 2016) of its subsidiaries (“HORIBA” as a consolidated group). From fiscal 2017, newly established HORIBA Americas Holding Incorporated (U.S.) and HORIBA MIRA SPAIN, S.L. (Spain) have been included in the scope of consolidation. On January 2017, HORIBA Holding S.A.R.L. (France) and HORIBA France E.U.R.L. (France) were merged into HORIBA Jobin Yvon SAS (France), and HORIBA Jobin Yvon SAS (France) changed its name to HORIBA FRANCE SAS (France). On December 2017, HORIBA International

Corporation (U.S.) was merged into HORIBA Instruments Incorporated (U.S.).

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 2016 and fiscal 2017.

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 (one in fiscal 2016). 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.

(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 fair values 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 2016 and fiscal 2017 were ¥12,933 million and ¥13,911 million (\$123,106 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 some consolidated 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 2016 and fiscal 2017 was 42,121 thousand and 42,149 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 2016 and fiscal 2017 was 42,308 thousand and 42,327 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

Not Applicable

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, 2016 and December 31, 2017 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 ¥977 million and ¥502 million (\$4,442 thousand) for the fiscal years ended December 31, 2016 and December 31, 2017 are included in (3) Marketable securities and investment securities.

	Millions of yen			Millions of yen		
	12/2016			12/2017		
	Book value	Fair value	Difference	Book value	Fair value	Difference
Assets:						
(1) Cash and time deposits.....	¥52,272	¥52,272	-	¥58,995	¥58,995	-
(2) Trade notes and accounts receivable.....	53,724	53,724	-	60,152	60,152	-
(3) Marketable securities and investment securities						
Available-for-sale securities.....	9,438	9,438	-	12,662	12,662	-
Total.....	¥115,436	¥115,436	-	¥131,810	¥131,810	-
Liabilities:						
(1) Trade notes and accounts payable.....	¥20,013	¥20,013	-	¥23,272	¥23,272	-
(2) Short-term loans and current portion of long-term loans.....	12,463	12,463	-	8,352	8,352	-
(3) Accounts payable - other.....	14,041	14,041	-	14,888	14,888	-
(4) Accrued income taxes.....	1,838	1,838	-	6,277	6,277	-
(5) Bonds.....	15,000	15,214	¥214	15,000	15,158	¥158
(6) Long-term loans.....	19,255	19,419	163	18,704	18,844	139
Total.....	¥82,612	¥82,991	¥378	¥86,496	¥86,794	¥297
Derivative transactions						
(1) Hedge accounting not applied.....	(¥14)	(¥14)	-	(¥48)	(¥48)	-
(2) Hedge accounting applied.....	-	-	-	-	-	-
Total.....	(¥14)	(¥14)	-	(¥48)	(¥48)	-

	Thousands of U.S. dollars		
	12/2017		
	Book value	Fair value	Difference
Assets:			
(1) Cash and time deposits.....	\$522,079	\$522,079	-
(2) Trade notes and accounts receivable.....	532,318	532,318	-
(3) Marketable securities and investment securities			
Available-for-sale securities.....	112,053	112,053	-
Total.....	<u>\$1,166,460</u>	<u>\$1,166,460</u>	-
Liabilities:			
(1) Trade notes and accounts payable.....	\$205,946	\$205,946	-
(2) Short-term loans and current portion of long-term loans.....	73,911	73,911	-
(3) Accounts payable - other.....	131,752	131,752	-
(4) Accrued income taxes.....	55,548	55,548	-
(5) Bonds.....	132,743	134,141	\$1,398
(6) Long-term loans.....	165,522	166,761	1,230
Total.....	<u>\$765,451</u>	<u>\$768,088</u>	<u>\$2,628</u>
Derivative transactions			
(1) Hedge accounting not applied.....	(\$424)	(\$424)	-
(2) Hedge accounting applied.....	-	-	-
Total.....	<u>(\$424)</u>	<u>(\$424)</u>	-

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 13 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
	12/2016	12/2017	U.S. dollars
			12/2017
Non-listed equity securities.....	¥212	¥194	\$1,716
Investments in nonconsolidated subsidiaries and affiliates.....	46	45	398

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-sale securities with maturities and bonds held to maturity.

	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	-	-

	Millions of yen			
	12/2017			
	Within one year	Over one year but within five years	Over five years but within ten years	Over ten years
Cash and time deposits.....	¥58,995	-	-	-
Trade notes and accounts receivable.....	60,152	-	-	-
Marketable securities and investment securities				
Available-for-sale securities with maturities				
(1) Governmental/municipal bonds.....	-	-	-	-
(2) Corporate bonds.....	300	-	-	-
(3) Other bonds.....	500	-	-	-
(4) Other.....	1,101	¥21	-	-
Total.....	¥121,049	¥21	-	-

	Thousands of U.S. dollars			
	12/2017			
	Within one year	Over one year but within five years	Over five years but within ten years	Over ten years
Cash and time deposits.....	\$522,079	-	-	-
Trade notes and accounts receivable.....	532,318	-	-	-
Marketable securities and investment securities				
Available-for-sale securities with maturities				
(1) Governmental/municipal bonds.....	-	-	-	-
(2) Corporate bonds.....	2,654	-	-	-
(3) Other bonds.....	4,424	-	-	-
(4) Other.....	9,743	\$185	-	-
Total.....	\$1,071,230	\$185	-	-

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

See Note 7 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, 2016 and December 31, 2017.

	Millions of yen			Millions of yen		
	12/2016			12/2017		
	Book value	Acquisition cost	Difference	Book value	Acquisition cost	Difference
Securities with book values exceeding acquisition costs:						
Equity securities.....	¥8,237	¥4,091	¥4,145	¥10,723	¥4,121	¥6,602
Governmental/municipal bonds.....	-	-	-	-	-	-
Corporate bonds.....	100	100	0	-	-	-
Other bonds.....	-	-	-	-	-	-
Other.....	-	-	-	1,100	1,099	0
Subtotal.....	8,337	4,191	4,145	11,823	5,221	6,602
Securities with book values not exceeding acquisition costs:						
Equity securities.....	36	41	(4)	31	34	(2)
Governmental/municipal bonds.....	-	-	-	-	-	-
Corporate bonds.....	100	100	(0)	300	300	(0)
Other bonds.....	-	-	-	499	500	(0)
Other.....	964	964	(0)	7	7	(0)
Subtotal.....	1,101	1,106	(4)	839	842	(2)
Total.....	¥9,438	¥5,298	¥4,140	¥12,662	¥6,063	¥6,599

	Thousands of U.S. dollars		
	12/2017		
	Book value	Acquisition cost	Difference
Securities with book values exceeding acquisition costs:			
Equity securities.....	\$94,893	\$36,469	\$58,424
Governmental/municipal bonds.....	-	-	-
Corporate bonds.....	-	-	-
Other bonds.....	-	-	-
Other.....	9,734	9,725	0
Subtotal.....	104,628	46,203	58,424
Securities with book values not exceeding acquisition costs:			
Equity securities.....	274	300	(17)
Governmental/municipal bonds.....	-	-	-
Corporate bonds.....	2,654	2,654	(0)
Other bonds.....	4,415	4,424	(0)
Other.....	61	61	(0)
Subtotal.....	7,424	7,451	(17)
Total.....	\$112,053	\$53,654	\$58,398

Note. Non-listed equity securities, etc., of ¥212 million and ¥194 million (\$1,716 thousand) for the fiscal years ended December 31, 2016 and December 31, 2017, 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, 2016 and December 31, 2017.

	Millions of yen		Thousands of U.S. dollars
	12/2016	12/2017	12/2017
Total sales of available-for-sale securities.....	¥2	¥3	\$26
Related gains.....	0	0	0

Impairment loss on securities

HORIBA recognized an impairment loss of ¥68 million and ¥9 million (\$79 thousand) in fiscal 2016 and fiscal 2017 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, 2016 and December 31, 2017 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	12/2016	12/2017	12/2017
Merchandise and finished goods.....	¥15,118	¥16,512	\$146,123
Work-in-process.....	14,543	16,396	145,097
Raw materials and supplies.....	10,626	12,665	112,079
Total.....	¥40,289	¥45,573	\$403,300

7. Short-term loans and long-term debt

Short-term loans are generally represented by bank notes with annual interest rates ranging from 0.45% to 15.77% and 0.57% to 8.25% at December 31, 2016 and December 31, 2017, respectively.

Long-term debt at December 31, 2016 and December 31, 2017 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	12/2016	12/2017	12/2017
0.609% unsecured bonds due in 2020.....	¥15,000	¥15,000	\$132,743
Loans from banks due serially from 2018 to 2026 at rates from 0.09% to 12.25% per annum.....	20,269	19,283	170,646
Lease obligations maturing serially through 2022.....	434	439	3,884
Total.....	35,703	34,723	307,283
Current portion.....	(1,158)	(718)	(6,353)
Long-term debt, less current portion.....	¥34,545	¥34,005	\$300,929

The aggregate annual maturities of long-term debt outstanding at December 31, 2017 were as follows:

Year ending December 31	Millions of yen	Thousands of U.S. dollars
2018.....	¥718	\$6,353
2019.....	1,743	15,424
2020.....	15,556	137,663
2021.....	439	3,884
2022.....	15,506	137,221
Thereafter.....	759	6,716
Total.....	¥34,723	\$307,283

As of December 31, 2017, assets were pledged as collateral for short-term loans and current portion of long-term debt of ¥18 million (\$159 thousand) and long-term debt of ¥36 million (\$318 thousand) as follows:

	Millions of yen	Thousands of U.S. dollars
Land.....	¥116	\$1,026
Machinery, equipment and vehicles.....	413	3,654
Total.....	¥529	\$4,681

8. 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, 2016 and December 31, 2017 were as follows:

	Millions of yen		Thousands of
	12/2016	12/2017	U.S. dollars
Balance at beginning of year.....	¥8,868	¥9,612	\$85,061
Service cost.....	614	668	5,911
Interest expense on projected benefit obligation.....	132	113	1,000
Actuarial differences.....	518	6	53
Benefits paid.....	(294)	(262)	(2,318)
Other.....	(227)	177	1,566
Balance at end of year.....	¥9,612	¥10,314	\$91,274

(b) The changes in pension assets for the years ended December 31, 2016 and December 31, 2017 were as follows:

	Millions of yen		Thousands of
	12/2016	12/2017	U.S. dollars
Balance at beginning of year.....	¥6,920	¥7,420	\$65,663
Expected return on pension assets.....	197	197	1,743
Actuarial differences.....	(91)	79	699
Contributions from the employer.....	709	630	5,575
Benefits paid.....	(238)	(184)	(1,628)
Other.....	(75)	27	238
Balance at end of year.....	¥7,420	¥8,169	\$72,292

(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, 2016 and December 31, 2017 were as follows:

	Millions of yen		Thousands of
	12/2016	12/2017	U.S. dollars
Funded projected benefit obligation.....	¥8,286	¥8,781	\$77,707
Pension assets.....	(7,420)	(8,169)	(72,292)
Unfunded projected benefit obligation.....	865	611	5,407
Net liability for retirement benefits in the consolidated balance sheets.....	2,191	2,145	18,982
Net defined benefit liability.....	2,191	2,145	18,982
Net liability for retirement benefits in the consolidated balance sheets.....	¥2,191	¥2,145	\$18,982

(d) The components of retirement benefits expense for the years ended December 31, 2016 and December 31, 2017 were as follows:

	Millions of yen		Thousands of
	12/2016	12/2017	U.S. dollars
Service cost.....	¥614	¥668	\$5,911
Interest expense on projected benefit obligation.....	132	113	1,000
Expected return on pension assets.....	(197)	(197)	(1,743)
Amortization of actuarial differences.....	102	74	654
Retirement benefits expense.....	¥652	¥658	\$5,823

(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, 2016 and December 31, 2017 were as follows:

	Millions of yen		Thousands of
	12/2016	12/2017	U.S. dollars
Actuarial differences.....	(¥450)	¥156	\$1,380
Total.....	(¥450)	¥156	\$1,380

(f) The components of remeasurements of defined benefit plans (before tax effect) in the consolidated balance sheets as of December 31, 2016 and December 31, 2017 were as follows:

	Millions of yen		Thousands of
	12/2016	12/2017	U.S. dollars
Unrecognized actuarial differences.....	(¥316)	(¥160)	(\$1,415)
Total.....	(¥316)	(¥160)	(\$1,415)

(g) Pension assets

i) The pension assets by major category as a percentage of total pension assets as of December 31, 2016 and December 31, 2017 were as follows:

	12/2016	12/2017
Debt investments.....	43.1%	44.3%
Equity investments.....	23.8	23.7
Mutual funds (Note).....	17.2	15.9
Other.....	15.9	16.1
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, 2016 and December 31, 2017 were as follows:

	12/2016	12/2017
Discount rate (mainly).....	0.6-0.8%	0.6-0.8%
Expected rate of return on pension assets (mainly).....	2.5%	2.5%
Expected rate of salary raises (mainly).....	3.5-4.0%	3.6-4.1%

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, 2016 and December 31, 2017 was ¥1,082 million and ¥1,121 million (\$9,920 thousand), respectively.

(4) Multi-employer pension plan

Since it was resolved to adopt the Japanese government policy to carry out a special dissolution of the Multi-employer pension plan (the "Fund") at the representative assembly that took place on February 20, 2014, procedures to apply for dissolution were prepared. Upon the adoption of a resolution for special dissolution at the representative assembly taken place on June 22, 2017, the Fund received approval for dissolution from the Minister of Health, Labour and Welfare as of September 20, 2017.

Concerning (a) Funded status of pension plans and (b) Ratio of HORIBA's contribution to the multi-employer plans relative to the contributions to the overall retirement benefit plans, information as of December 31, 2017 is omitted as the Fund has been under the process of completing liquidation following the approval for dissolution.

Benefits expense for the multi-employer pension plan, for which accounting procedures were the same as for defined contribution plans, for the years ended December 31, 2016 and December 31, 2017 was ¥403 million and ¥299 million (\$2,646 thousand), respectively.

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

	Millions of yen
	<u>12/2016</u>
Fair value of plan assets.....	¥53,199
Total of actuarial obligation and minimum actuarial reserve.....	<u>71,070</u>
Net balance.....	<u>(¥17,871)</u>

(b) Ratio of HORIBA's contribution to the multi-employer plans relative to the contributions to the overall retirement benefit plans
From March 1, 2016 to March 31, 2016 the ratio was 17.03%.

Note 1. Net balance resulted from the prior service cost of ¥18,531 million and the general reserve for plan assets of ¥659 million for the year ended December 31, 2016.

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. HORIBA posted an estimated loss that will arise in relation to the dissolution. Consequently, we posted a provision for loss on dissolution of the employees' pension fund of ¥1,247 million and ¥640 million (\$5,663 thousand) under long-term liabilities in the consolidated balance sheets for the years ended December 31, 2016 and December 31, 2017, respectively

9. 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 13, 2018, the Board of Directors approved cash dividends in the amount of ¥3,203 million (\$28,345 thousand). The appropriation had not been accrued in the consolidated financial statements as of December 31, 2017. Such appropriations are recognized in the period in which they are approved by the Board of Directors.

10. Stock options

(1) Expenses and items related to stock options

	Millions of yen		Thousands of U.S. dollars
	<u>12/2016</u>	<u>12/2017</u>	<u>12/2017</u>
Selling, general and administrative expenses.....	¥80	¥88	\$778

(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

	Persons granted options	Number of shares by type of stock (Note 1)	Date of grant	Vesting conditions	Service period	Exercise period
No 1 Stock-based Compensation Type Stock Option	4 directors and 13 corporate officers of the Company	Common stock 54,200 shares	April 16, 2009	(Note 2)	(Note 3)	April 17, 2009 to April 16, 2039
No 2 Stock-based Compensation Type Stock Option	4 directors and 14 corporate officers of the Company	Common stock 26,400 shares	April 23, 2010	(Note 2)	(Note 3)	April 24, 2010 to April 23, 2040
No 3 Stock-based Compensation Type Stock Option	4 directors and 16 corporate officers of the Company	Common stock 31,000 shares	April 21, 2011	(Note 2)	(Note 3)	April 22, 2011 to April 21, 2041
No 4 Stock-based Compensation Type Stock Option	4 directors and 16 corporate officers of the Company	Common stock 28,200 shares	April 24, 2012	(Note 2)	(Note 3)	April 25, 2012 to April 24, 2042
No 5 Stock-based Compensation Type Stock Option	4 directors and 14 corporate officers of the Company, 2 directors and 3 corporate officers of the subsidiaries	Common stock 33,200 shares	May 8, 2013	(Note 2)	(Note 3)	May 9, 2013 to May 8, 2043
No 6 Stock-based Compensation Type Stock Option	5 directors and 12 corporate officers of the Company, 3 directors and 6 corporate officers of the subsidiaries	Common stock 27,500 shares	April 24, 2014	(Note 2)	(Note 3)	April 24, 2014 to April 23, 2044
No 7 Stock-based Compensation Type Stock Option	5 directors and 13 corporate officers of the Company, 3 directors and 8 corporate officers of the subsidiaries	Common stock 22,100 shares	May 8, 2015	(Note 2)	(Note 3)	May 9, 2015 to May 8, 2045
No 8 Stock-based Compensation Type Stock Option	5 directors and 14 corporate officers of the Company, 4 directors and 9 corporate officers of the subsidiaries	Common stock 25,900 shares	May 10, 2016	(Note 2)	(Note 3)	May 11, 2016 to May 10, 2046
No 9 Stock-based Compensation Type Stock Option	4 directors and 16 corporate officers of the Company, 4 directors and 8 corporate officers of the subsidiaries	Common stock 15,300 shares	May 9, 2017	(Note 2)	(Note 3)	May 10, 2017 to May 9, 2047

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

	Options before vesting (number of shares)				Options after vesting (number of shares)					
	Balance at December 31, 2016	Granted	Forfeited	Vested	Balance at December 31, 2017	Balance at December 31, 2016	Vested	Exercised	Forfeited	Balance at December 31, 2017
No. 1 Stock-based Compensation Type Stock Option	—	—	—	—	—	34,000	—	4,800	—	29,200
No. 2 Stock-based Compensation Type Stock Option	—	—	—	—	—	17,800	—	2,300	—	15,500
No. 3 Stock-based Compensation Type Stock Option	—	—	—	—	—	22,300	—	3,300	—	19,000
No. 4 Stock-based Compensation Type Stock Option	—	—	—	—	—	20,500	—	2,900	—	17,600
No. 5 Stock-based Compensation Type Stock Option	—	—	—	—	—	26,000	—	3,400	—	22,600
No. 6 Stock-based Compensation Type Stock Option	—	—	—	—	—	22,700	—	3,400	—	19,300
No. 7 Stock-based Compensation Type Stock Option	—	—	—	—	—	18,500	—	2,600	—	15,900
No. 8 Stock-based Compensation Type Stock Option	—	—	—	—	—	25,900	—	2,600	—	23,300
No. 9 Stock-based Compensation Type Stock Option	—	15,300	—	15,300	—	—	15,300	—	—	15,300

(ii) Price per share

	Option price (yen)	Weighted average stock price (yen)	Fair value at grant date (yen)		Option price (yen)	Weighted average stock price (yen)	Fair value at grant date (yen)
No. 1 Stock-based Compensation Type Stock Option	1	6.251	1,091	No. 6 Stock-based Compensation Type Stock Option	1	6.251	2,739
No. 2 Stock-based Compensation Type Stock Option	1	6.251	2,628	No. 7 Stock-based Compensation Type Stock Option	1	6.251	3,598
No. 3 Stock-based Compensation Type Stock Option	1	6.251	2,208	No. 8 Stock-based Compensation Type Stock Option	1	6.251	3,116
No. 4 Stock-based Compensation Type Stock Option	1	6.251	2,245	No. 9 Stock-based Compensation Type Stock Option	1	—	5,795
No. 5 Stock-based Compensation Type Stock Option	1	6.251	2,988				

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

The grant date fair value of No. 9 Stock-based Compensation Type Stock Option in the year ended December 31, 2017 was estimated using the Black-Scholes option pricing model as follows:

	No. 9 Stock-based Compensation Type Stock Option
Stock price volatility (Note 1)	35.6%
Expected remaining period (Note 2)	15 Years
Expected dividend (Note 3)	¥85/share
Risk free interest rate (Note 4)	0.321%

Note 1. Stock price volatility was calculated based on actual weekly stock prices over 15 years (from the week of May 6, 2002 to the week of May 1, 2017).

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, 2016.

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.

11. Leases

Finance leases which do not transfer ownership at December 31, 2016 and December 31, 2017 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."

Payments remaining under operating leases at December 31, 2016 and December 31, 2017 were as follows:

	Millions of yen		Thousands of U.S. dollars
	12/2016	12/2017	12/2017
Payments remaining:			
Payments due within 1 year.....	¥736	¥830	\$7,345
Payments due after 1 year.....	1,453	1,454	12,867
Total.....	¥2,189	¥2,284	\$20,212

12. Contingent liabilities

Not applicable.

13. Derivative transactions

Derivative transactions for which hedge accounting was not applied at December 31, 2016 and December 31, 2017 were as follows:

Currency related:

	Millions of yen				Millions of yen			
	12/2016				12/2017			
	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	¥4,083	–	(¥12)	(¥12)	¥4,772	–	(¥11)	(¥11)
Euro	1,032	–	(32)	(32)	1,248	–	(16)	(16)
British pound	450	¥280	8	8	696	¥280	(21)	(21)
Other	349	–	(1)	(1)	536	–	(7)	(7)
Buying								
US dollar	405	–	1	1	206	–	0	0
Euro	89	–	3	3	40	–	(0)	(0)
British pound	7	–	(0)	(0)	90	–	0	0
Other	116	–	(1)	(1)	174	–	1	1
Currency swaps								
Receiving in US dollar and paying in Brazilian real	28	13	19	19	13	–	6	6
Total	¥6,563	¥293	(¥14)	(¥14)	¥7,779	¥280	(¥48)	(¥48)

Note. Fair value is determined by banking institutions.

	Thousands of U.S. dollars			
	12/2017			
	Contract amount	Amount of principal due over 1 year	Fair value	Gain (loss)
Forwards				
Selling				
US dollar	\$42,230	–	(\$97)	(\$97)
Euro	11,044	–	(141)	(141)
British pound	6,159	\$2,477	(185)	(185)
Other	4,743	–	(61)	(61)
Buying				
US dollar	1,823	–	0	0
Euro	353	–	(0)	(0)
British pound	796	–	0	0
Other	1,539	–	8	8
Currency swaps				
Receiving in US dollar and paying in Brazilian real	115	–	53	53
Total	\$68,840	\$2,477	(\$424)	(\$424)

Derivative transactions for which hedge accounting was applied at December 31, 2016 and December 31, 2017 were as follows:

Interest rate currency related:

Millions of yen					Millions of yen			
12/2016					12/2017			
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			
					12/2017			
					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	\$133,805	\$133,805	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.

14. 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 33.0% and 30.8% for the years ended December 31, 2016 and December 31, 2017, 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, 2016 and December 31, 2017.

	12/2016	12/2017
Statutory tax rate.....	33.0%	30.8%
Expenses not qualifying for permanent deduction, e.g. entertainment expenses.....	0.6	0.5
Nontaxable dividend income.....	(0.2)	(0.6)
Per capita inhabitants tax.....	0.3	0.2
Increase/decrease in valuation allowance for deferred tax assets.....	(4.5)	1.9
Differences in tax rate between foreign subsidiaries and the Company.....	(0.3)	2.5
Tax credits.....	(4.9)	(5.7)
Reduction in deferred tax assets by the changes of tax rate.....	0.8	2.4
Other.....	0.0	1.2
Effective tax rate.....	24.8%	33.2%

Significant components of HORIBA's deferred tax assets and liabilities at December 31, 2016 and December 31, 2017 were as follows:

	Millions of yen		Thousands of
	12/2016	12/2017	U.S. dollars
			12/2017
Deferred tax assets			
Accrued enterprise tax.....	¥43	¥282	\$2,495
Loss on write-down of inventory.....	1,221	816	7,221
Allowance for doubtful receivables.....	126	62	548
Accrued bonuses.....	214	270	2,389
Loss carryforwards.....	1,293	1,070	9,469
Unrealized gains.....	1,466	1,926	17,044
Net defined benefit liability.....	564	404	3,575
Depreciation.....	398	369	3,265
Loss on valuation of investment securities.....	91	119	1,053
Loss on impairment of fixed assets.....	100	370	3,274
Provision for loss on dissolution of the employees' pension fund.....	381	195	1,725
Effects of changes in accounting policies.....	366	242	2,141
Other.....	2,946	2,896	25,628
Total deferred tax assets.....	9,214	9,026	79,876
Valuation allowance.....	(1,268)	(1,814)	(16,053)
Net deferred tax assets.....	7,945	7,211	63,814
Deferred tax liabilities			
Unrealized losses.....	(390)	(390)	(3,451)
Unrealized gains (losses) on available-for-sale securities.....	(1,211)	(1,962)	(17,362)
Effects of changes in accounting policies.....	(272)	(189)	(1,672)
Other.....	(1,191)	(886)	(7,840)
Total deferred tax liabilities.....	(3,066)	(3,428)	(30,336)
Net deferred tax assets.....	¥4,879	¥3,783	\$33,477

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

	Millions of yen		Thousands of
	12/2016	12/2017	U.S. dollars
			12/2017
Current assets.....	¥4,160	¥4,331	\$38,327
Investments and other noncurrent assets.....	1,726	1,549	13,707
Current liabilities.....	(76)	(61)	(539)
Long-term liabilities.....	(931)	(2,036)	(18,017)
Net deferred tax assets.....	¥4,879	¥3,783	\$33,477

(Impacts of the Enactment of the U.S. Tax Cuts and Jobs Act)

The Tax Cuts and Jobs Act was enacted in the U.S. on December 22, 2017 ("U.S. tax reform"). Due to "U.S. tax reform," the federal corporate income tax rate in the U.S. applicable to HORIBA's U.S. business was reduced from the fiscal year beginning on January 1, 2018.

As a result of the "U.S. tax reform," the amount of deferred tax assets (netted with deferred tax liabilities) decreased by ¥419 million (\$3,707 thousand), while income taxes (deferred) increased by ¥415 million (\$3,672 thousand).

15. Impairment loss

HORIBA reviewed its long-lived assets for impairment, and, as a result, impairment losses were recognized by HORIBA for the following asset groups as other expenses for the year ended December 31, 2017.

Location	Use	Type	Millions of yen	Thousands of U.S. dollars
U.K.	Business assets and other	Other intangibles	¥2,329	\$20,610
		Goodwill	93	823
France	Other	Goodwill	103	911

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.

As HORIBA MIRA Ltd. ("HORIBA MIRA"), a consolidated subsidiary in the U.K., is unlikely to record a profit as initially planned, the book value of goodwill and other intangibles attributable to HORIBA MIRA have been reduced to their respective recoverable amounts and a loss on impairment was recognized in the consolidated statement of income. The recoverable amount was measured at the value in use based on estimated future cash flows discounted at rate of 10.4%.

As HORIBA FRANCE SAS, a consolidated subsidiary in France, is unlikely to record a profit as initially planned, the entire amount of its unamortized goodwill balance was reduced to zero and a loss on impairment was recognized in the consolidated statement of income. The recoverable amount was measured at the value in use, which was zero, as future cash flow was not expected.

16. Consolidated statement of comprehensive income

Components of other comprehensive income for the years ended December 31, 2016 and December 31 2017 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	12/2016	12/2017	12/2017
Unrealized gains (losses) on available-for-sale securities:			
Increase (decrease) during the year.....	¥351	¥2,458	\$21,752
Reclassification adjustment.....	-	(0)	(0)
Subtotal, before tax.....	351	2,458	21,752
Tax (expense) or benefit.....	(47)	(750)	(6,637)
Subtotal, net tax.....	304	1,708	15,115
Deferred gains or losses on hedges			
Increase (decrease) during the year.....	(29)	1	8
Reclassification adjustment.....	30	(1)	(8)
Subtotal, before tax.....	0	-	-
Tax (expense) or benefit.....	(0)	-	-
Subtotal, net tax.....	0	-	-
Foreign currency translation adjustments			
Increase (decrease) during the year.....	(4,040)	3,452	30,548
Reclassification adjustment.....	(113)	-	-
Subtotal, before tax.....	(4,153)	3,452	30,548
Tax (expense) or benefit.....	-	-	-
Subtotal, net tax.....	(4,153)	3,452	30,548
Remeasurements of defined benefit plans			
Increase (decrease) during the year.....	(553)	82	725
Reclassification adjustment.....	102	74	654
Subtotal, before tax.....	(450)	156	1,380
Tax (expense) or benefit.....	161	(25)	(221)
Subtotal, net tax.....	(288)	130	1,150
Total other comprehensive income.....	(¥4,137)	¥5,291	\$46,823

17. 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, Intelligent Transport System, 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, Process Measurement Equipment

(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, Metal Analyzers, Raman, Fluorescence Spectroscopy Systems, 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) Information regarding income (loss), assets and other material items by reportable segment

	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
	Millions of yen						
	12/2017						
	Automotive	Process & Environmental	Medical-Diagnostic	Semiconductor	Scientific	Adjustment	Consolidated
Sales							
Sales to outside customers.....	¥73,360	¥17,433	¥25,187	¥53,300	¥26,117	-	¥195,399
Intersegment sales and transfers.....	-	-	-	-	-	-	-
Total.....	73,360	17,433	25,187	53,300	26,117	-	195,399
Segment income (loss).....	¥7,680	¥1,094	¥1,918	¥15,642	¥498	-	¥26,834
Segment assets.....	¥77,203	¥16,954	¥23,582	¥52,162	¥24,135	¥71,881	¥265,920
Other items:							
Depreciation.....	3,260	547	1,250	1,575	753	-	7,387
Amortization of goodwill.....	65	-	-	-	80	-	146
Increase in tangible and intangible fixed assets.....	4,068	684	1,082	4,475	1,328	-	11,639
	Thousands of U.S. dollars						
	12/2017						
	Automotive	Process & Environmental	Medical-Diagnostic	Semiconductor	Scientific	Adjustment	Consolidated
Sales							
Sales to outside customers.....	\$649,203	\$154,274	\$222,893	\$471,681	\$231,123	-	\$1,729,194
Intersegment sales and transfers.....	-	-	-	-	-	-	-
Total.....	649,203	154,274	222,893	471,681	231,123	-	1,729,194
Segment income (loss).....	\$67,964	\$9,681	\$16,973	\$138,424	\$4,407	-	\$237,469
Segment assets.....	\$683,212	\$150,035	\$208,690	\$461,610	\$213,584	\$636,115	\$2,353,274
Other items:							
Depreciation.....	28,849	4,840	11,061	13,938	6,663	-	65,371
Amortization of goodwill.....	575	-	-	-	707	-	1,292
Increase in tangible and intangible fixed assets.....	36,000	6,053	9,575	39,601	11,752	-	103,000

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 ¥65,436 million and ¥71,881 million (\$636,115 thousand) of segment assets for the years ended December 31, 2016 and December 31, 2017, respectively, represent corporate assets that were not allocated to any business segment. They included 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.

<Related Information>

1. Information regarding geographic areas

(1) Net sales

	Millions of yen		Thousands of U.S. dollars
	12/2016	12/2017	12/2017
Japan.....	¥56,522	¥65,075	\$575,884
United States.....	24,521	27,461	243,017
China.....	19,692	23,688	209,628
Europe.....	38,337	41,187	364,486
Asia.....	25,270	33,304	294,725
Others.....	5,748	4,681	41,424
Total.....	¥170,093	¥195,399	\$1,729,194

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
	12/2016	12/2017	12/2017
Japan.....	¥29,359	¥31,045	\$274,734
France.....	6,534	6,644	58,796
United Kingdom.....	11,273	13,211	116,911
Others.....	14,809	17,799	157,513
Total.....	¥61,977	¥68,701	\$607,973

2. Information regarding major customers

There was 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
	12/2016	12/2017	12/2017
Automotive Test Systems.....	-	¥2,423	\$21,442
Scientific Instruments & Systems.....	-	103	911
Total.....	-	¥2,526	\$22,353

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

	Millions of yen		Thousands of U.S. dollars
	12/2016	12/2017	12/2017
Automotive Test Systems.....	¥173	¥14	\$123
Scientific Instruments & Systems.....	214	179	1,584
Total.....	¥387	¥194	\$1,716

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.

18. Related party transactions

Not applicable.

19. Subsequent events

Not applicable.

20. Business combination

(Transactions under common control and others)

HORIBA Advanced Techno, a wholly owned subsidiary of the Company, took over the water quality and liquid analysis instruments and systems business of the Company (hereinafter, the “water measurement business”), through an absorption-type company split approach on January 1, 2017.

The absorption-type company split was summarized as follows.

(1) Purpose of the company 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 split its water measurement business 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) Legal method of business combination

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

(3) Date of business combination

January 1, 2017

(4) Details of allotments relating to the company split

The Company owned all shares of HORIBA Advanced Techno and there was no consideration such as allotment of shares or payment of cash due to this company split.

(5) Calculation of allotments relating to the company split

There were no allotments of shares or other assets due to this company split.

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

In accordance with the absorption-type company split agreement, HORIBA Advanced Techno took over the assets, liabilities, other rights and obligations and contractual status that were 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 had been 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, 2017, 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, 2017, and their financial performance and cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended December 31, 2017 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 30, 2018
Kyoto, Japan

Corporate Information

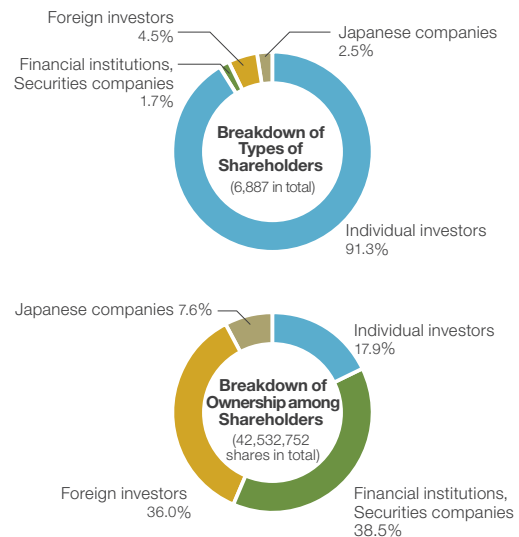
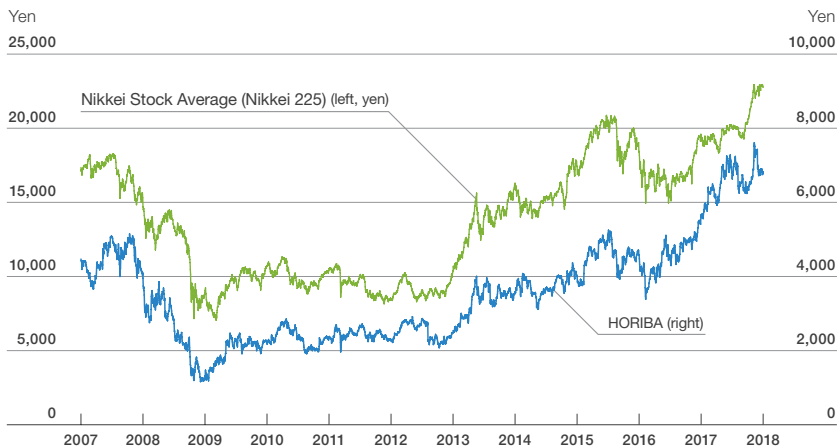
Head Office	2 Miyanohigashi, Kisshoin, Minami-ku Kyoto 601-8510 Japan	
Founded	October 17, 1945	
Incorporated	January 26, 1953	
Net sales	195,399 million yen (Consolidated)	Fiscal 2017
Paid in Capital	12,011 million yen (Consolidated)	As of December 31, 2017
Number of Employees	7,399(Consolidated)	As of December 31, 2017
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, 2017

Name of Shareholders	Shares (Thousands)	Percentage (%)
Japan Trustee Services Bank, Ltd.	2,685	6.31
The Master Trust Bank of Japan, Ltd.	2,291	5.39
PICTET AND CIE (EUROPE) SA, LUXEMBOURG REF: UCITS	1,649	3.88
National Mutual Insurance Federation of Agricultural Cooperatives	1,287	3.03
Atsushi Horiba	879	2.07
THE KYOTO CHUO SHINKIN BANK	830	1.95
The Bank of Kyoto, Ltd.	828	1.95
Japan Trustee Services Bank, Ltd. (trust account 9)	808	1.90
HORIBA Raku-Raku Kai	769	1.81
Japan Trustee Services Bank, Ltd. (trust account 5)	755	1.78

Stock Price Trend



■ 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.

HORIBA's corporate motto

“Joy and Fun”

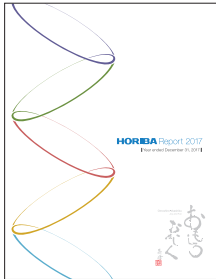
Originates from the belief that if we take interest and pride in the work that occupies most of the active time in our lives, in the place where we spend the large part of each day, then as a result our satisfaction with life will increase, and we will be able to enjoy our lives even more. Taking interest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

■ 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.

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.



https://www.horiba.com/en_en/company/social-responsibility/home/

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HORIBA Report 2017

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