Basic Corporate Philosophy

The ULVAC Group aims to contribute to the development of industries and science by comprehensively utilizing its vacuum and peripheral technologies through the mutual cooperation and collaboration of the Group companies.

Management Policies

Improve Customer Satisfaction
Innovations in Production Technology
Development of Original Products
Free and Open-minded Organization
Enhancing Corporate Value

Corporate Profile of the ULVAC Group

Name: ULVAC, Inc.
Trademark: ULVAC
Head Office: 2500 Hagisono, Chigasaki, Kanagawa Prefecture, Japan
Established: August 23, 1952
Capital: ¥20,873,042,500
Number of Employees: Non-consolidated 1,293, Consolidated 6,439 (As of June 30, 2018)
Business Area: Development, manufacturing, sale and customer support for vacuum equipment, peripheral devices, vacuum components and materials for the display, solar cell, semiconductor, automobile, chemical, food product and medical product industries, as well as universities and research labs, and import and export of various equipment. Additionally, research guidance and technical advice for vacuum technologies in general.

Vacuum Equipment Business

FPD and PV production equipment
Liquid crystal display (LCD) production equipment
OLED production equipment
Roll coaters
Solar cell production equipment

Semiconductor and electronic device production equipment
Semiconductor production equipment
LED production equipment
Electronic device production equipment

Components
Vacuum pumps
Vacuum gauges
Helium leak detectors
Process gas monitors
Thin-film measuring equipment
EB, RF and DC power generators
Vacuum valves
Deposition controllers
Vacuum transfer robots

Industrial equipment
Vacuum heat treatment furnaces
Vacuum melting furnaces
Vacuum brazing furnaces
Rare-earth magnet production equipment
Vacuum freeze-drying equipment
High-vacuum distillation equipment
Automatic leak testers

Vacuum Application Business

Materials
Sputtering target materials
High-melting-point materials and production of components
Nano-metal inks

Others
Surface analyzers
Controllers
Mask Blanks

Business Segments of the ULVAC Group
Editorial Policy

We publish the ULVAC VALUE REPORT as a summary of our initiatives in the past year to achieve sustainable growth and enhancement of corporate value, our medium- to long-term vision, and our management approach. We consider this report to be an important communication tool to facilitate stakeholders’ understanding of our activities and deepen dialogue with them.

Report’s Scope and Period

Scope: ULVAC Group

While the report covers the ULVAC Group as a whole, any portions for which the scope differs are indicated.

Period: Year ended June 30, 2018

(July 1, 2017 to June 30, 2018, Fiscal 2017)

Some portions of the report include activities and initiatives from July 2018 onward.

<Disclaimer>

Figures shown in tables and graphs in this report may not add up to the indicated total because of rounding. Some figures have been revised from previous years’ data because the scope of reporting was expanded or calculating methods have been changed.

ULVAC’s Communication Tools

We endeavor to achieve the optimum information disclosure by making various communication tools available to meet your needs.

To help you deepen your understanding of the ULVAC Group, our communication tools range from statutory disclosure documentation centering on information on financial results to this report that offers non-financial information, such as social and environmental initiatives indispensable for creating corporate value, in addition to information on business activities, management strategies, and financial information. Please also refer to our website for the latest information.

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ULVAC’s History

When ULVAC was founded back in 1952, vacuum technology had not yet entered widespread use in Japan. As a trailblazer, we championed vacuum technology by introducing new technologies to the market and addressing the needs of customers in diverse industries. ULVAC will continue tackling technological innovation to speed progress toward the “smart society” to which we aspire.

Challenging new industrial sectors

Ever since its foundation, ULVAC has been refining its capability to flexibly manipulate vacuum technology. In step with the changing industrial structure, we have always boldly sought to develop new technologies while expanding application fields to include the production of automobiles, chemicals, pharmaceuticals, and food, metallurgy, as well as mass production of semiconductors and electronic devices, flat-panel displays, and organic light-emitting diode displays.

Inspired by the promise of the emerging “smart society” where electronics support and connect every industry and lifestyle, we are confident that our vacuum technology will be a key to the advance of the cluster of transformative technologies, including IoT, big data, artificial intelligence, and self-driving vehicles, which will underpin next-generation lifestyles.

History

1952

Japan Vacuum Engineering Co., Ltd. was founded.

1955

Established the first overseas subsidiary in Hong Kong.

1964

Head Office/Plant completed in Chigasaki, Kanagawa Prefecture.

1969

Changed the company name in English to ULVAC CORPORATION to promote exports.

1971

Established a subsidiary in Hamburg, then West Germany, as a base for cultivating the western European market.

1972

Established the Institute for Super Materials (present-day ULVAC Scientific Research Laboratory) as a research facility.

1975

Established the North American Office. Established a subsidiary in North America to serve for exports to the U.S.

1977

Established KYUSHU ULVAC CORPORATION (present-day ULVAC KYUSHU CORPORATION) in Kagoshima Prefecture to expand sales activities in the Kyushu area.

1980

Established a subsidiary in Taiwan.

1982

Established a subsidiary in Taiwan.

1983

Established the Tokyo Institute for Super Materials in Tsukuba Science City (present-day Tsukuba City), Ibaraki Prefecture.

1987

Established the Tokyo Office in China.

1990

Established a vacuum pump production base in China.

1995

Established a subsidiary in Singapore.

2001

Established a large-scale production base for large LCD production equipment in South Korea.

2005

Established a subsidiary in Thailand.

2010

Established the Osaka Institute for Super Materials to enhance R&D in South Korea.

2011

Established the South Korea Institute for Super Materials to enhance R&D in South Korea.

2015

Established the Japan Technology Research Laboratory in Tsukuba, Ibaraki Prefecture.

2016

Established a base in India.

The story of ULVAC’s foundation

At the time when Japan was engaged in post-war recovery, a group of talented young researchers and engineers gathered with the aim of “contributing to the revival of Japanese industry through vacuum technology.” In 1952 six angel investors, impressed by the promise of these visionary young people, invested in the establishment of Japan Vacuum Engineering Co., Ltd., the forerunner of present-day ULVAC.
ULVAC’s Businesses

Across a wide range of industries, ULVAC is a source of numerous products and technologies that meet the needs of our customers and the market.
At present, ULVAC operates businesses in six areas.

Net sales by business segment (amount and %)

<table>
<thead>
<tr>
<th>Business</th>
<th>Amount</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuum Application Business</td>
<td>¥32.6 billion</td>
<td>13%</td>
</tr>
<tr>
<td>Vacuum Equipment Business</td>
<td>¥216.7 billion</td>
<td>87%</td>
</tr>
<tr>
<td>Others</td>
<td>¥17.4 billion</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>¥15.2 billion</td>
<td></td>
</tr>
<tr>
<td>Industrial equipment</td>
<td>¥23.7 billion</td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>¥32.8 billion</td>
<td></td>
</tr>
</tbody>
</table>

As befits a company involved in a range of FPD and PV manufacturing technologies, ULVAC not only develops production equipment but also offers solutions worldwide that leverage its development of advanced materials.

FPD and PV production equipment
¥108.5 billion

Net sales in fiscal 2017
¥249.3 billion

As a comprehensive vacuum product manufacturer, ULVAC is also dedicated to the development of components. ULVAC pursues cutting-edge vacuum technology while providing a wide range of product lines, extending from vacuum pumps and measurement/analysis equipment, to components, such as power generators for various types of deposition equipment and vacuum valves.

ULVAC is a source of technology derived from vacuum-based production equipment for diverse industries.

Vacuum melting furnace

Higher integration and higher performance at lower cost are demanded for next-generation semiconductors and other high-performance devices. Based on its development of super-miniaturization technologies for such semiconductors and other electronic devices, ULVAC delivers a stream of new technologies and products to the world that underpin the progress of society.

X-ray photoelectron spectroscopy equipment

Higher integration and higher performance at lower cost are demanded for next-generation semiconductors and other high-performance devices. Based on its development of super-miniaturization technologies for such semiconductors and other electronic devices, ULVAC delivers a stream of new technologies and products to the world that underpin the progress of society.

Net sales by region (amount and %)

<table>
<thead>
<tr>
<th>Region</th>
<th>Amount</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overseas</td>
<td>¥174.5 billion</td>
<td>70%</td>
</tr>
<tr>
<td>Japan</td>
<td>¥74.8 billion</td>
<td>30%</td>
</tr>
<tr>
<td>Europe, North America and elsewhere</td>
<td>¥16.7 billion</td>
<td></td>
</tr>
<tr>
<td>Other Asia</td>
<td>¥6.7 billion</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>¥95.0 billion</td>
<td></td>
</tr>
</tbody>
</table>

As befits a company involved in a range of FPD and PV manufacturing technologies, ULVAC not only develops production equipment but also offers solutions worldwide that leverage its development of advanced materials.

As a comprehensive vacuum product manufacturer, ULVAC is also dedicated to the development of components. ULVAC pursues cutting-edge vacuum technology while providing a wide range of product lines, extending from vacuum pumps and measurement/analysis equipment, to components, such as power generators for various types of deposition equipment and vacuum valves.

Vacuum melting furnace

With a long history of producing vacuum equipment for industrial use, ULVAC has been involved in this business sector since the emergence of vacuum technology in the 1950s. Leveraging the fundamental technology it has developed so far, ULVAC currently provides various solutions across wide-ranging industries, including the automotive, pharmaceutical, and food industries.

As befits a company involved in a range of FPD and PV manufacturing technologies, ULVAC not only develops production equipment but also offers solutions worldwide that leverage its development of advanced materials.

FPD and PV production equipment
¥108.5 billion

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Vacuum melting furnace

Higher integration and higher performance at lower cost are demanded for next-generation semiconductors and other high-performance devices. Based on its development of super-miniaturization technologies for such semiconductors and other electronic devices, ULVAC delivers a stream of new technologies and products to the world that underpin the progress of society.
Vacuum technology is at the heart of industrial and scientific development. As a comprehensive manufacturer of products utilizing vacuum technology, ULVAC seeks to maximize synergy throughout the Group, encompassing diverse business fields and formats, while strengthening collaboration with partners to offer high-value-added solutions that contribute to the resolution of issues confronting society and moreover facilitate the realization of lifestyles that are not only safe and secure but also affluent and convenient.
### ULVAC’s Value Creation <The Value ULVAC Offers>

**Social issues**
- Establishment of global network infrastructure and the smart society, progress of 5G and IoT
- Aspiration for the progress of all industries and technological innovation
- Diversification of semiconductor and electronic device applications and needs
- Trend toward devices with smaller size, more speed, larger capacity and lower power consumption
- Environmental issues, such as global warming and climate change
- Global energy issues due to dependence on finite resources
- Food safety and security, population explosion and sharp increase in demand for food in emerging countries, increase in food loss
- Longevity, needs and progress of health promotion and healthcare
- Aging of infrastructure in developed countries
- Development of industrial infrastructure in emerging countries
- Wider gap between rich and poor

**Market opportunities**
- Progress of renewable and low-carbon energy systems
- Improvement in energy conversion efficiency
- Longer preservation of food and pharmaceuticals, volume reduction
- Development of safe, secure and comfortable infrastructure

**ULVAC’s business activities**

<table>
<thead>
<tr>
<th>Priority domains</th>
<th>FPD and PV production equipment</th>
<th>Semiconductor production equipment</th>
<th>Electronic device production equipment</th>
<th>Industrial equipment</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Realization of the smart society</strong></td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td>Self-driving, agriculture, healthcare, virtual currency, etc.</td>
<td><img src="image6.png" alt="Image" /></td>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
<td><img src="image9.png" alt="Image" /></td>
<td><img src="image10.png" alt="Image" /></td>
</tr>
</tbody>
</table>

**Fundamental technology for realization of the smart society**
- IoT, cloud, AI, robots, big data, drones

**Energy management, next-generation energy**
- Improvement in energy conversion efficiency

**Healthcare, life innovation**
- Longer life and volume reduction of freeze-dried food, powder vaccines, drugs, etc. by vacuum freeze drying and other technologies

**Construction, social infrastructure, mobility**
- Development of safe, secure and comfortable infrastructure

**ULVAC’s six business areas**
- Response to new semiconductor and electronic device fields and needs by applying vacuum deposition and other technologies and R&D of cutting-edge processes through collaborative creation with customers
- Enhancement of performance of solar cells and power devices by vacuum deposition, ion implantation and other technologies
- Enhancement of performance of solar cells and power devices by vacuum deposition, ion implantation and other technologies
- Longer life and volume reduction of freeze-dried food, powder vaccines, drugs, etc. by vacuum freeze drying and other technologies
- Enhancement of performance of industrial materials and response to new materials by applying vacuum heat treatment and other technologies
- Contribution to creation of a sustainable society that is safe and secure

**Customers and their products**
- FPD, semiconductors, electronic equipment and devices manufacturers
- Semiconductors: Memory, logic, 3D NAND, PCRAM, CPU, etc.
- Functional devices: Sensing, communication (5G), display MEMS, SAW/RF devices, OLED, etc.
- Solar cell manufacturers, battery manufacturers, etc.
- Energy: Heat generation, power storage, conversion, Solar cells, all-solid-state batteries, power devices, magnets for wind turbines
- Food manufacturers, pharmaceutical manufacturers, etc.
- Foodstuffs, pharmaceuticals: Freeze drying freeze-dried foods, emergency provisions, supplements, powder vaccines, etc.
- Chemical and materials manufacturers, steelmakers, transportation equipment manufacturers, etc.

**Contribution to resolution of principal social issues**
- Contribution to realization of an advanced, sustainable, safe and secure, global society
- Contribution to creation of a sustainable society by power generation, energy storage, and energy saving
- Contribution to human health, the future of medicine, and realization of a sustainable society with minimal food loss by means of safe and secure foods and pharmaceuticals

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*Indicates relationships with the United Nations’ Sustainable Development Goals (SDGs).
ULVAC’s Value Creation <Source of Value>

Research & Development
Ongoing value creation from a medium- to long-term perspective

ULVAC has long been a source of vacuum-technology-based products and materials indispensable for wide-ranging industries. With vacuum technology at the heart of everything we do, we will continue to promote innovative, pioneering R&D capable of addressing actual and potential needs and create high-added-value products and technologies, thus contributing to the progress of society.

Eight priority areas
— Toward affluent and safe lifestyles

We have designated eight priority areas for development. Furthermore, we are pursuing development and enhancement in each area through the cooperation of the marketing manager (CMO), design and cost reduction manager (CTO) and the technology manager (CTM).

R&D Organizations

ULVAC has a global R&D structure in place. Through integration of the Group’s R&D organizations, we are accelerating R&D while endeavoring to create differentiated technologies by capitalizing on technological innovation and fusion of technologies.

Furthermore, while conducting product development to ensure short- to medium-term profits through development and business operations in our designated priority areas, the Future Technology Research Laboratory is sowing the seeds for the long term, with a time horizon of 10 to 20 years.

 Capital Expenditures and R&D Expenses (Actual and Forecast)

R&D investments (capital expenditures for R&D and R&D expenses) are expected to continue increasing. Active development is expected to lead to future growth, along with efforts in next-generation display logic, next-generation non-volatile memory.

Global Network
Sales & service networks offering solutions to support industrial development worldwide

Deploying the capabilities of the Group’s 50 companies, we have established sales & service networks optimized for each region, such as Japan, the United States, Europe and Asia. Vacuum technology, one of the keys for many other cutting-edge technologies, will be increasingly required for a wide range of industries and growth fields in the future.

Customer Support
ULVAC CS Solutions pool the Group’s knowledge

We are pursuing outstanding service by pooling the knowledge we have cultivated, including original technologies and service knowhow.

Our customer support network (71 bases in 14 countries) in Japan and around the world underpins our customers’ production operations in a manner that meets their needs throughout the lifecycle. We offer comprehensive maintenance service covering components and make proposals for improvement and refurbishment covering customers’ processes. Furthermore, by using information on customer needs as feedback for the development of new equipment, we aim to offer even more sophisticated vacuum technologies and service.

ULVAC Value Report 2018 14
## About ULVAC

**Consolidated Financial and Non-financial Highlights**

### Consolidated Financial Highlights

<table>
<thead>
<tr>
<th>Year</th>
<th>Net sales</th>
<th>Operating profit</th>
<th>Net income</th>
<th>Equity ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>173.9</td>
<td>12.0</td>
<td>11.5</td>
<td>29.2</td>
</tr>
<tr>
<td>2014</td>
<td>179.2</td>
<td>11.1</td>
<td>8.9</td>
<td>29.2</td>
</tr>
<tr>
<td>2015</td>
<td>192.4</td>
<td>17.9</td>
<td>16.7</td>
<td>40.2</td>
</tr>
<tr>
<td>2016</td>
<td>231.8</td>
<td>29.5</td>
<td>28.5</td>
<td>49.5</td>
</tr>
<tr>
<td>2017</td>
<td>249.3</td>
<td>35.4</td>
<td>35.7</td>
<td></td>
</tr>
</tbody>
</table>

### Non-financial Highlights

#### Rate of lost-work-time injuries

<table>
<thead>
<tr>
<th>Year</th>
<th>Manufacturing industry</th>
<th>ULVAC (non-consolidated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1.56</td>
<td>1.56</td>
</tr>
<tr>
<td>2014</td>
<td>1.66</td>
<td>1.66</td>
</tr>
<tr>
<td>2015</td>
<td>1.61</td>
<td>1.61</td>
</tr>
<tr>
<td>2016</td>
<td>1.63</td>
<td>1.63</td>
</tr>
<tr>
<td>2017</td>
<td>1.66</td>
<td>1.66</td>
</tr>
</tbody>
</table>

#### Annual paid leave utilization rate (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>66.7</td>
<td>72.8</td>
<td>75.8</td>
<td>78.8</td>
<td>87.8</td>
</tr>
</tbody>
</table>

#### Localization ratio of presidents of overseas subsidiaries (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>66.7</td>
<td>72.8</td>
<td>78.8</td>
<td>81.8</td>
<td>87.8</td>
</tr>
</tbody>
</table>

### Commitment to safety

According to a report by the Ministry of Health, Labour and Welfare, the number of workers who suffered fatal or occupational accidents causing four days or more lost work-days has stopped decreasing in recent years and is fluctuating at around 110,000. Although the proportion accounted for by the manufacturing industry has been gradually decreasing, it still accounts for about a quarter, indicating the difficulty faced by the industry in its efforts to eliminate occupational accidents. It is in this context that ULVAC has been promoting various safety initiatives, including risk assessment, through the operation of the safety management system, which led to a lower rate of occupational accidents compared with the industry average. With “safety first” as the Group’s principle, we will redouble our efforts to eliminate occupational accidents.

### Work-life balance

The ULVAC Group operates globally and comprises 119 bases. Convinced it is preferable to appoint people of the respective countries and regions to be in charge of management of overseas bases, we have been fostering and promoting local managers and have assigned local employees to important positions overseas. With a view to accelerating business promotion and in preparation for the next leap forward, our new mid-term management plan positions human resources development as a key element in strengthening the management base. We will continue training next-generation executives as well as cultivation and promotion of global human resources.

### Supporting education of the next generation and contributing to local communities

The ULVAC Group holds vacuum demonstration classes and plant tours, mainly for local public institutions, such as elementary schools, and for people in local communities and shareholders. Adhering to the Basic Corporate Philosophy, “The ULVAC Group aims to contribute to the development of industries and science by comprehensively utilizing its vacuum and peripheral technologies through the mutual cooperation and collaboration of the Group companies,” we will support education of the next generation and contribute to local communities through vacuum demonstration classes and other initiatives.

**ULVAC Value Report 2019**
## Consolidated Financial and Non-financial Highlights

### Key Financial Results

<table>
<thead>
<tr>
<th>Financial Data</th>
<th>FY2007</th>
<th>FY2008</th>
<th>FY2009</th>
<th>FY2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit (in millions of yen)</strong></td>
<td>241,212</td>
<td>223,825</td>
<td>221,804</td>
<td>232,040</td>
</tr>
<tr>
<td><strong>Net Sales</strong></td>
<td>9,081</td>
<td>3,483</td>
<td>4,809</td>
<td>1,850</td>
</tr>
<tr>
<td><strong>Operating profit (loss)</strong></td>
<td>5,075</td>
<td>835</td>
<td>4,942</td>
<td>1,441</td>
</tr>
<tr>
<td><strong>Ordinary profit (loss)</strong></td>
<td>3,610</td>
<td>811</td>
<td>2,138</td>
<td>(8,706)</td>
</tr>
<tr>
<td><strong>Net assets</strong></td>
<td>91,853</td>
<td>90,158</td>
<td>102,504</td>
<td>92,023</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>303,069</td>
<td>318,076</td>
<td>313,784</td>
<td>313,616</td>
</tr>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td>32,068</td>
<td>(31,891)</td>
<td>44,312</td>
<td>17,730</td>
</tr>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td>(25,944)</td>
<td>(14,051)</td>
<td>(10,876)</td>
<td>(14,833)</td>
</tr>
<tr>
<td><strong>Cash flows from financing activities</strong></td>
<td>(1,750)</td>
<td>51,325</td>
<td>(23,418)</td>
<td>2,159</td>
</tr>
<tr>
<td><strong>Cash and cash equivalents at end of period</strong></td>
<td>16,977</td>
<td>21,827</td>
<td>29,721</td>
<td>35,722</td>
</tr>
</tbody>
</table>

### Key Performance Indicators

<table>
<thead>
<tr>
<th>Financial Data</th>
<th>FY2007</th>
<th>FY2008</th>
<th>FY2009</th>
<th>FY2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net assets per share (yen)</strong></td>
<td>2,052.48</td>
<td>1,961.08</td>
<td>1,992.06</td>
<td>1,787.51</td>
</tr>
<tr>
<td><strong>Net income per share (yen)</strong></td>
<td>84.16</td>
<td>18.90</td>
<td>46.60</td>
<td>(176.43)</td>
</tr>
<tr>
<td><strong>Equity ratio (%)</strong></td>
<td>29.1</td>
<td>26.4</td>
<td>31.3</td>
<td>28.1</td>
</tr>
<tr>
<td><strong>ROE (return on equity) (%)</strong></td>
<td>4.0</td>
<td>0.9</td>
<td>2.3</td>
<td>—</td>
</tr>
<tr>
<td><strong>Price-earnings ratio (times)</strong></td>
<td>1.6</td>
<td>0.3</td>
<td>1.6</td>
<td>0.5</td>
</tr>
</tbody>
</table>

### Other Indicators

<table>
<thead>
<tr>
<th>Financial Data</th>
<th>FY2007</th>
<th>FY2008</th>
<th>FY2009</th>
<th>FY2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capital expenditure (in billions of yen)</strong></td>
<td>23.4</td>
<td>19.6</td>
<td>11.1</td>
<td>17.8</td>
</tr>
<tr>
<td><strong>R&amp;D expenses (in billions of yen)</strong></td>
<td>8.6</td>
<td>8.3</td>
<td>8.0</td>
<td>8.3</td>
</tr>
<tr>
<td><strong>Interest-bearing debt (in billions of yen)</strong></td>
<td>86.7</td>
<td>136.1</td>
<td>100.2</td>
<td>105.1</td>
</tr>
<tr>
<td><strong>Dividends (yen)</strong></td>
<td>21.0</td>
<td>21.0</td>
<td>21.0</td>
<td>—</td>
</tr>
<tr>
<td><strong>Dividend payout ratio (%)</strong></td>
<td>25.0</td>
<td>111.1</td>
<td>45.1</td>
<td>—</td>
</tr>
<tr>
<td><strong>Number of employees (in persons)</strong></td>
<td>6,981</td>
<td>6,579</td>
<td>5,971</td>
<td>5,904</td>
</tr>
</tbody>
</table>

### Notes

1. Net sales do not include consumption taxes.
2. The Company applies the "Revised Accounting Standard for Business Combinations" (ASBJ Statement No. 21, September 13, 2013) and "net income attributable to owners of parent" is presented instead of "net income." 
3. ROE (return on equity) figures for FY2001 to FY2012 are not presented because the Company recorded a net loss for these periods.
4. The ratio of ordinary profit to total assets for FY2011 is not presented because the Company recorded an ordinary loss for FY2011.
5. Price-earnings ratios for FY2010 to FY2012 are not presented because the Company recorded a net loss for these periods.
Commitment of Top Management

Take up the challenge of creating value for the future by fostering human resources for the next round of corporate growth

Systems and mechanisms to reform employee mindset
Promote every employee’s personal growth by emphasizing “knowing the outside world and looking in from the outside”

At the start of my second year as president
Since taking the helm at ULVAC in July 2017, I have been endeavoring to strengthen the solidarity of the Group and to change the awareness of our employees to a globally oriented perspective, while remaining true to ULVAC’s corporate DNA of leveraging its “human resources,” upholding its corporate culture of boldly seeking out challenges and contributing to industrial and scientific advancement through the comprehensive utilization of vacuum technology. The priority in my first year as president was to lay a foundation for transformation of the corporate culture. Starting from fiscal 2018 (fiscal year ending June 30, 2018), I intend to speed up our reform in an effort to cultivate new possibilities as a “comprehensive vacuum products manufacturer.”

Although ULVAC is performing well at present, the drastic changes brought on by the wave of technological innovation and global competition have awakened a sense of urgency for the need to promote reforms that will ensure our survival. Although living in Japan tends to make us oblivious to our global situation, I have witnessed the rapid changes taking place with our customers and on the market through my experience at the overseas bases. I believe that it is also essential to utilize this very perspective of being outside looking in to reaffirm our strengths and potential. Through the manufacture of semiconductor production equipment and electronic device production equipment, which promises growth in peripheral markets, in addition to the manufacture of the current mainstay FPD (Flat Panel Display) production equipment, we have been displaying growth potential in a broad range of fields amid the wave of technological innovation. Our operating base capable of generating stable revenues including such businesses as the components and materials businesses and the customer support business may be counted as one of our strengths.

Under the “Run at triple speed!”, which is my policy, I intend to encourage our employees to speed up reforms while building “systems and mechanisms” to ensure that the entire ULVAC Group is growing and heading towards the same direction.

My challenges as president
My first challenge as president is to assess the value of ULVAC by “knowing the outside world and looking in from the outside” so as to envisage what ULVAC’s configuration should be five to ten years ahead. In line with the progress of the smart society, embodied by IoT, the emergence of self-driving vehicles, and greater utilization of AI and robots, dramatic changes are taking place as technological innovation increasingly intensifies. As technologies become increasingly sophisticated and diversified, enhancement of ULVAC’s corporate value hinges on our ability to come up with leading-edge technologies by deploying our R&D capabilities to maximum effect. Therefore, to fuel our progress as a comprehensive vacuum products manufacturer, we are realocating resources and promoting optimization of the business portfolio and cultivation of new fields.

Our next challenge is to establish a system to maximize Group synergy to achieve global growth by aligning Group companies in a unified direction as mentioned earlier. We aim to put in place an efficient global management system capitalizing on specialization and regional characteristics, that is, the strengths of each Group company. Moreover, we will promote alliances with external parties, including industry peers, to establish complementary relationships so as to realize manufacturing that meets the needs of the global market. As ULVAC operates worldwide, it will be essential to secure advantages and economies of scale through collaboration with external parties with the aim of expanding business attuned to the market in each region.

Furthermore, it is necessary to provide support for employees’ personal growth. For ULVAC to survive in the global competitive environment, it is crucially important to encourage every employee to display his or her individuality to the full, as this will enable us to leverage the diversity of human resources for competitive advantage.

From Group companies, we will select personnel with the potential to flourish in a global milieu, encourage them to gain wide-ranging managerial experience, and train them as next-generation executives. Meanwhile, for directors, senior executives and general managers, we have positioned the fostering of subordinates as the principal item in their performance evaluation. Moreover, each individual will cultivate the “perspective” required of his or her position and to share the “issues.” The objective is to promote total optimization geared to growth based on “systems and mechanisms” designed to develop the capabilities ULVAC requires through assignment to managerial positions. My job is to take the lead in building “systems and mechanisms” where people are the most important resources and our future depends on them. By focusing on the development of human resources, we will establish a basis for sustainable growth.

Setsuo Iwashita
President and Chief Executive Officer

Profile
March 1984 Joined the Company
August 1990 Manager of Beijing Business Office and Shanghai Business Office, Overseas Operation Division
September 1995 Director and Chief Executive Officer of ULVAC (NINGBO) CO., LTD.
July 1998 General Manager for China region, Asia Division of the Company
March 2006 Director and Chief Executive Officer of ULVAC (CHINA) HOLDING CO., LTD.
October 2006 Chairman of ULVAC (Shanghai) Trading Co., Ltd.
Chairman of ULVAC (SUZHOU) Co., Ltd.
September 2011 Director of the Company
July 2012 Director and Executive Officer
September 2013 Managing Executive Officer
July 2015 Senior Managing Executive Officer
Chairman of ULVAC (CHINA) HOLDING CO., LTD
September 2016 Director and Senior Managing Executive Officer of the Company
July 2017 President and Chief Executive Officer (current position)

ULVAC’s Vision

ULVAC Value Report 2018

corporate growth
for the future by fostering human resources for the next round of corporate growth

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Commitment of Top Management

Strengthen profit structure and financial strength through management reform targeting net sales of ¥300 billion and an operating profit margin of 16% in five years

Highest sales ever, record breaking profits for three consecutive years

In fiscal 2017, the first year of the three-year mid-term management plan, orders received exceeded the previous fiscal year’s level and we recorded our highest-ever net sales. Profitability also improved significantly, with all profit categories achieving record highs for three consecutive terms.

FPD and PV production equipment remained strong in terms of both orders received and sales, thanks to the continued high level of investment in LCDs for large-screen TVs and OLEDs for smartphones, centering on China. Meanwhile, regarding semiconductor and electronic device production equipment, there were significant increases in orders received for and sales of production equipment mainly for memory (NAND, DRAM, next-generation non-volatile), backed by buoyant demand for servers. Additionally, for components and materials, orders received and sales remained brisk. In terms of profits, the expansion of the semiconductor and electronic device production equipment business contributed to a substantial increase in profit.

As a result of the above, orders received increased 3.2% year-on-year to ¥243.0 billion, net sales increased 7.5% to ¥249.3 billion, operating profit surged 20.0% to ¥35.4 billion, ordinary profit grew 24.2% to ¥36.9 billion, and net income surged 46.7% to ¥35.9 billion, reflecting the effects of record-high tax assets and gains from sales of stocks. The operating profit margin increased from 12.7% for the previous fiscal year to 14.2% and the equity ratio improved significantly from 40.2% to 49.5%.

In view of this financial performance, ULVAC paid an end-of-term dividend fiscal 2017 of ¥95 per share (an increase of ¥45 per share from the previous fiscal year).

Upward revisions to the targets of the mid-term management plan

The three-year mid-term management plan (from fiscal 2017 to fiscal 2019) had originally aimed for “net sales of ¥250 billion” and “operating profit of ¥35 billion” on a consolidated basis in the final year of the plan. However, given that in the initial year we are already nearing the target for net sales and we have already surpassed the operating profit target, we revised upward our quantitative targets for the final year of the plan to “net sales of ¥265 billion” and “operating profit of ¥38 billion.” No changes have been made to the framework of the plan in which the key strategies are “promotion of business growth” and “enhancement of power to create value.” In order to achieve the new quantitative targets, we will aim at further growth primarily in semiconductor and electronic device production equipment businesses, while proactively engaging in development that will lead to future growth.

Furthermore, as well as the revisions to the targets of the mid-term management plan, we have set “net sales of ¥300 billion” and “operating profit margin of 16%” on a consolidated basis as targets for the fiscal year ending June 30, 2023, five years from now, as outlined in our “growth strategy” for the next leap forward.

Further enhancing corporate value by establishing a management base for sustainable growth through human resources development and enhancement of manufacturing capabilities

Multifaceted strengthening of the management base

ULVAC is implementing multifaceted initiatives to achieve more powerful business promotion capabilities and manufacturing capabilities so as to strengthen the management base. Regarding the management reform targeting net

The decrease in net income will be in reaction to the posting of deferred tax assets in the previous fiscal year, and the overall trend remains upward with higher sales and higher profit expected. The year-end dividend for fiscal 2018 is expected to be ¥105 per share, an increase of ¥10 per share from fiscal 2017.

Contributing to a sustainable society by offering solutions to social issues as a comprehensive vacuum products manufacturer

Strengthened recognition of sustainability and its practice

In recent years, global efforts are made with a view to developing a sustainable society, such as initiatives to achieve the United Nations’ sustainable development goals (SDGs) and environmental, social, and governance (ESG) investment. Efforts by private-sector companies are also called for, as more and more companies are advocating the resolution of social issues through business activities as management themes and proactively working on solutions.

ULVAC recognizes its corporate social responsibility more than ever and is eager to contribute to the achievement of a sustainable society. The Group will make a concerted effort to resolve social issues through collaborative creation with stakeholders. We intend to further clarify materiality (important issues) as a group through the promotion of sustainability-oriented management from a medium- to long-term perspective.

Our products and services contribute to energy-saving and the development of emerging countries. Going forward, we will create greater value by comprehensively utilizing vacuum technology, continue to be an enterprise valued by society, and grow together with our stakeholders.
Whereas ULVAC’s targets under the mid-term management plan announced in August 2017 were net sales of ¥250 billion and operating profit of ¥35 billion on a consolidated basis for the fiscal year ending June 30, 2020 (fiscal 2019), the final year of the plan, we made upward revisions to these targets for the final year in view of the strong financial performance in the fiscal year ended June 30, 2018 (fiscal 2017). Moreover, considering the growth strategies for the next round of growth, we target net sales of ¥300 billion and an operating profit margin of 16% on a consolidated basis for the fiscal year ending June 30, 2023 (fiscal 2022), five years from now.

**Revised Mid-term Management Plan and Growth**

**Market background**

- Major turning point for technological innovation
  - Establishment of a smart society, progress of 5G and IoT
  - Progress of renewable and low-carbon energy systems, improvement of energy conversion efficiency

**Opportunities to create new value**

- Strengthening of management base
  - Financial strength improvement
    - Improve capabilities for growth investment
  - Information platform development
    - Improve business judgments
  - Deepening relationships and coordination within the Group
    - More powerful manufacturing capabilities
  - Human resources development
    - More powerful business promotion capabilities

**Results for FY2017**

- Net sales: ¥249.3 billion
- Operating profit: ¥35.4 billion
- Operating profit margin: 14.2%

**Key strategies**

- Promote business growth
  - Semiconductor production equipment business: Achieve growth in tandem with memory and logic
  - Electronic device production equipment business: Achieve growth by seizing business opportunities brought about by technological innovation accelerated by 5G
  - FPD and PV production equipment business: Respond to continuous long-term investments centering on large-screen TVs and OLEDs
  - Components business, materials business, and customer support business: Achieve growth as stable revenue bases
  - China market: Reinforce sales and production, achieve business growth

**Vision**

- Highly profitable corporate management by comprehensively utilizing vacuum technology, maximizing synergy among equipment, materials, deposition processing, analysis & services, and cooperating with global business partners
- Human resources development for the next leap forward and a corporate culture that relishes challenges
ULVAC aims to equip itself with more powerful manufacturing capabilities by deepening relationships and coordination within the Group. Strengthening global development, sales and production systems will enable ULVAC to establish a base for sustainable growth supporting further expansion of the business.

Synergy with sales and production

The critically important role of research & development operations consists of determining the direction of R&D in cutting-edge fields and accelerating R&D to enable timely product launches. In order to continuously increase sales and profit in the rapidly changing semiconductor and electronic devices field, we have to conduct advanced development of promising innovative technology at an early stage based on accurate analysis of customer needs and future market trends. Consequently, there is a growing need to integrate R&D with both sales and production departments so as to unleash synergy leading to the timely launch of products desired by customers.

Open R&D to spur global R&D synergy

Along with the technological innovation of recent years, competition between device manufacturers, which are ULVAC’s customers, has been intensifying. One consequence is the emergence of major players based in China, South Korea, and Taiwan. Device development by overseas manufacturers is a rapid process. Even for ULVAC, which derives around 70% of sales from outside Japan, it has become essential for its development structure to match the speed and urgency of the overseas device manufacturers in global business development. Accordingly, it is imperative that any local subsidiaries conducting R&D close to overseas customers promptly share the information gained with the rest of the ULVAC Group’s R&D departments. In other words, they should engage in what we call “open R&D.” To maximize synergy geared to global growth, we are pursuing initiatives to raise R&D efficiency, enhance ULVAC’s technology portfolio, and complement and reinforce technologies.

Open innovation

In recent years, our customers, the device manufacturers, have been making increasingly sophisticated demands of us in terms of equipment quality and productivity. In response, ULVAC is sharing ideas with customers of products at an early stage of development with a view to collaborative development. In fact, collaborative development with major device manufacturers and research institutes overseas is underway. In-house commercialization of products and technology development internally is becoming ever more difficult in view of the need to accelerate development, while collaboration and integration with external human resources and technologies are becoming keys for success. Going forward, we intend to enhance synergy by prioritizing assignment of personnel from overseas Group companies to important positions, acquisition of talent and new technologies from outside the Group, and collaborative development with leading universities and customers.

Sales & marketing operations focus on when and where innovative technology is developed, identify customer needs from various perspectives, and determine how best to deliver solutions to “end users,”” feeding back all this information to R&D and production operations so as to achieve synergy and enhance corporate value.

Moreover, by building a formidable sales & marketing foundation through strengthened collaboration among the ULVAC Group’s sales & marketing departments, we will pursue customer satisfaction while raising the productivity of sales & marketing. For this purpose, we intend to establish a new organization designed to facilitate and support collaboration among sales & marketing departments throughout ULVAC Group companies and promote a system for sharing sales & marketing information to support sales & marketing activities.
Overwhelming market share for G10.5 sputtering equipment for LCDs for large-screen TVs

Ready for next-generation equipment other than FPDs

Regarding LCDs for large-screen TVs, device manufacturerers rapidly expanded capital investment for G10.5 that is capable of producing multiple 65- or 75-inch panels from one substrate. Capitalizing on abundant experience accumulated in the TV market, ULVAC has secured an overwhelming share of this market segment by introducing sputtering equipment offering superior productivity ahead of competitors. We are also ready to enter the market for vacuum equipment for printed OLED TVs, which are promising next-generation large-screen TVs.

Although the market scale of the solar-cell field is not large business opportunities are emerging since a leading large-capacity lithium-ion batteries, we have reached the rising growth market. In addition, with regard to required for electric vehicles (EVs), which constitute a promising next-generation large-screen TVs.

FPD-related investment expected to continue over the long term

Advanced development of successor products attuned to customer needs, leading to greater market share

Capital investment is in full swing in the FPD field. China has become the largest producer of LCDs for large-screen TVs and G10.5-compatible factories have come on stream. OLED TVs, which are gaining traction as premium large-screen TVs, promise to be a future growth engine in view of ongoing technological innovation. With regard to small and medium-sized displays, flexible displays adopting OLED are the key to further growth.

With differentiated proprietary technologies, such as low-particle large glass substrate transportation technology, ULVAC aims to expand its market share, including that in the OLED-TV market. Meanwhile, we are developing products for small and medium-sized displays with a view to reducing particles, which have a direct impact on yield.

Continued growth is expected for the solar-cell market until 2030, with high-efficiency solar cells showing particularly high growth. ULVAC is the only company with a track record in mass production of high-efficiency solar cells using silicon heterojunction solar cell production equipment. Aiming to set a de facto standard for high-efficiency solar cells, we will promote development of new products unmatched by competitors. We are also preparing our new deposition roll coater, which is capable of handling high-functional films necessary for large-capacity lithium-ion batteries used in EVs, for market entry and business operation.

FPD and PV Production Equipment

Vacuum Equipment

Business (1)

Vacuum Equipment

Business (1)

Strategic growth by expanding customers in memory and entering the logic/foundry market

Through vigorous investment in the memory market we received orders from both repeat customers, and newly acquired customers with new processes applications. Our progress is largely attributable to one of our key business strategies, cultivation of ever-stronger relationships with technology-initiative partners. Additionally, we accomplished full-scale entry to the logic/foundry markets, a longstanding goal, and progressed in establishing these businesses as new growth drivers in accordance with our business strategy. Having started business with customers in China, one of the growing markets, we are poised for future growth of this business.

ULVAC intends to grow memory and logic/foundry business through these technical innovations.

We will focus on growth engine keywords: “Miniaturization Process Requirements”, “Nonvolatile memory film formation”, “Wafer level package deposition”, and “Logic/Foundry miniaturization mass production support”. Based on a business growth strategy unique to ULVAC, we will pursue business development different from other major competing equipment manufacturers.

As a medium-term strategic plan we are promoting the development of leading edge technologies that will leverage our strengths in native oxide removal and sputtering.

Further growth by strengthening the global business structure

The quality enhancement initiatives launched five years ago have yielded good results and we have set in motion a virtuous cycle capable of securing profit. While maintaining these initiatives throughout the business unit, including Group companies, we will not only provide customers with superior products and technologies but also promote development and sales of successor products, thus expanding ULVAC’s share of the market for FPD, PV and high functional films.

Our aim is to expand the semiconductor equipment operation as ULVAC’s second pillar and achieve substantial global business development by continuing to ride a robust investment trend in the semiconductor market. To accomplish this, we will endeavor to seize business opportunities based on our growth strategy emphasizing responsiveness to customer needs and by earning customer confidence in ULVAC.

Next-generation market share for semiconductor equipment operation to become the second pillar and achieve substantial global business expansion

For the semiconductor equipment operation to become the second pillar and achieve substantial global business expansion

The requirements of semiconductor devices and related components are evolving to support the emergence of IoT’s big data demand and servers for edge computing. Growth opportunities are increasing not only for traditional DRAM and NAND but also for storage-class memory. Miniaturization is fueling innovation in processor technology.

Growing semiconductor equipment market share in the age of the smart society

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Demand for electronic devices and components is increasing globally, driven by the expansion of the Internet of Things (IoT) and the development of 5G communication technologies. ULVAC is dedicated to strengthening customer relations and expanding its business in these rapidly evolving markets. By leveraging the Group’s comprehensive capabilities, we aim to expand business globally in order to inc

**Priority fields**

- Electronic devices
- Electronic mounting
- Power devices
- Sensors
- Thin films and high-precision machinery
- MEMS and high-performance sensors
- MEMS sensors and high-performance sensors
- Ceramic materials and silicon wafers

**Key Measures**

1. Further expand global business development in Asia as well as in Europe and North America
2. Continue development of cutting-edge technologies for the supersmart society
3. Build partnerships with customers by leveraging Group capabilities
4. Win more orders by vigorously tackling new projects (related to optical films and microdisplays)

**Conceivable Risks**

1. Delay in the takeoff of fields that are expected to be sources of new demand
2. Delay in business development in China, Europe, and North America
3. Slowdown in the Japanese market
4. Longer manufacturing lead times for equipment attributable to difficulties in parts procurement

**Key Measures**

1. Swiftly identify customer needs and market needs and develop new processes
2. Resolve social issues through business
3. Further strengthen supply chains
4. Strengthen collaboration among production bases and Group companies to achieve integrated operation

**Conceivable Risks**

1. Progress of commoditization and intensifying price competition
2. Delay in the takeoff of projects for products to be introduced in new markets

**Industrial Equipment**

- Contributing to industries and society with vacuum technology involving thermal application

**Key Measures**

1. Offering solutions for higher-value-added products of superior quality based on a sure grasp of customer needs across the full spectrum of industries
2. Contributing to the full spectrum of industries
3. Contributing to industries and society with vacuum technology involving thermal application

**Conceivable Risks**

1. Slowdown in the Japanese market
2. Delay in the takeoff of projects for products to be introduced in new markets
3. Cost significantly exceeded cost forecasts

**Key Measures**

1. Contributing to industries and society with vacuum technology involving thermal application
2. Contributing to the full spectrum of industries
3. Contributing to industries and society with vacuum technology involving thermal application

**Conceivable Risks**

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2. Delay in the takeoff of projects for products to be introduced in new markets
3. Slowdown in the Japanese market
ULVAC’s Vision

Achieve further growth through Group synergy

Vacuum components (vacuum pumps, vacuum gauges, vacuum valves, vacuum leak testers, gas analyzers, power generators for deposition processes, etc.) are used in many industries. In fiscal 2017, supported by robust markets for FPD panels, semiconductors, electronic devices, and automobiles, we achieved sales targets in all categories (pumps, measurement equipment, mechatronics, and power generators for deposition processes). In particular, centering on Asia, we expanded the scale of business of power generators for deposition processes by enriching the product lineup.

The vacuum pump business is conducted by ULVAC CRYOGENICS, which is a manufacturer specializing in cryopumps and cryocoolers, and ULVAC KK, which handles compact vacuum pumps, as well as ULVAC, Inc. In or- der to achieve growth in the global market, we aim to enhance the efficiency of production and sales through synergy among ULVAC Group companies in Japan and overseas involved in the components business and expand collaboration with business partners.

Components

Components essential for vacuum equipment. ULVAC supplies vacuum pumps, vacuum gauges, vacuum valves, vacuum leak testers, gas analyzers, power generators for deposition processes, etc. to vacuum equipment manufacturers, machinery manufacturers, etc.

Regarding product development, we released products attuned to market needs that offer both superior productivity and energy saving, including the new LS series of dry pumps [for details, please refer to Page 47]. We will step up development of products offering higher productivity and environmental friendliness.

Reaching out from Japan to China, Europe and North America in pursuit of global business development

The vacuum components business is already borderless. The rapidly expanding semiconductor and display production equipment market in China is a huge business opportunity for components manufacturers. Tackling this market inevitably involves competing against powerful European and American manufacturers. In order to prevail, we are strengthening our global marketing structure and establishing systems for developing products attuned to market needs. Moreover, we seek to enhance the value of the ULVAC brand by pursuing business development, including enrichment of the lineup through alliances. By offering the optimum products for various fields, including analysis, medicine, and food, we will cultivate vacuum applications and promote expansion of the cryocooler business.

Steady business expansion

In fiscal 2017, sales of LCD materials in China greatly increased and sales of semiconductor materials were also robust. Moreover, for high-performance superconductive materials, we were able to establish a track record overseas and are laying the foundation for future business expansion.

Materials business

The materials business centers on target materials used in sputtering, which is the mainstream method of vacuum deposition, and also includes development and manufacturing of functional materials.

Such a great opportunity comes only once in decades

Technological innovation, with IoT, 5G communication, and AI to the fore, has brought us to the threshold of the smart society. One consequence of this trend is that new high-performance materials are coming into their own in the semiconductor, cutting-edge electronic device, and the display field. They are destined to eventually supersede traditional materials. With a view to facilitating the emergence of the smart society, we are developing new materials required in this expanding application field in cooperation with ULVAC’s equipment divisions and research institutes and together with our customers.

Key Measures

1. Capture the demand from increasing equipment operation in China
2. Meet the increasingly sophisticated demand associated with FPD and semiconductor production processes
3. Provide support for high-tech applications besides the deposition process (develop high performance materials)
4. Enhance production capacity in Japan and overseas

Conceivable Risks

1. Stably securing raw materials suppliers in view of increasing demand
2. Price competition in the promising China market
3. Investment for growth and recoupment

Be a pioneer in offering excellent materials to the market

Sputtering equipment, ULVAC’s mainstay products, requires target materials as a source for deposition substances. We are endeavoring to develop products such as target materials endowed with functions required in the emerging smart society, power-generation markets, and corrosion-resistant, superconductive high-performance materials, in cooperation with the equipment divisions and research institutes. Moreover, we aim to be first-to-market so that our customers can be the first to enjoy their benefits.

Others

Semiconductor mask blanks market

We will respond effectively to increasing needs for miniaturization and higher definition in line with the expansion of the application field and the proliferation of types, reflecting the improved performance of smartphones, development of self-driving vehicles, and the ramp-up of demand related to IoT and artificial intelligence (AI).

Surface analyzer market

Whereas university and company laboratories were previously the principal users of surface analyzers, this equipment is increasingly being used nowadays for routine purposes such as product inspection. Surface analyzers are being applied to more materials in more regions and markets throughout the world. ULVAC will continue offering surface analyzers with functions attuned to customer needs.

Ju Hoon Shin
General Manager of Components Division

Steadiness and productivity enhancement

Vacuum technology is essential for diverse industries. As a comprehensive manufacturer of vacuum components supporting the industrial infrastructure, we offer an extensive lineup of vacuum pumps, measurement equipment, and power generators for deposition processes. Whereas previously expectations of the components business were largely limited to ensuring the reliability of components so as to enhance the competitiveness of equipment businesses, now on, through the enhancement of our global competitiveness, we aim to become a pillar of ULVAC’s global business.

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Management Structure

Directors and Auditors

Isao Utsunomiya 1 External Auditor
Senshu Asada 1 External Auditor
Mitsuru Yahagi 1 Auditor
Makoto Ito 1 Auditor
Shigemitsu Sato 5 Director and Managing Executive Officer
Hisaharu Obinata 5 Director and Senior Adviser
Setsuo Iwashita 1 President and Chief Executive Officer
Akira Mihayashi 2 External Director
Norio Uchida 3 External Director
Dr. Kozo Ishida 1 External Director
Yoshimi Nakajima 6 External Director
Mitsuru Motoyoshi 1 Director and Executive Vice President
Dr. Choong Ryul Paik 3 Director and Managing Executive Officer
Masahiko Ishiguro 6 Director and Managing Executive Officer
General Manager of Corporate Sales & Marketing Division

Basis for Value Creation

ULVAC Value Report 2018
Corporate Governance

In accordance with its Basic Corporate Philosophy: “The ULVAC Group aims to contribute to the development of industries and science by comprehensively utilizing its vacuum and peripheral technologies through the mutual cooperation and collaboration of the Group companies,” we work to ensure thorough corporate governance in order to increase corporate value over the medium to long term. From this perspective, we respect the interests not only of shareholders, but also of business partners, local communities, employees, and other stakeholders that are related to our business activities. We also value competitive and efficient operation, while ensuring strict compliance with laws and corporate ethics.

ULVAC has adopted a company with a board of corporate auditors as its management structure. Particularly important institutional structures include the Board of Directors, the Board of Standing Directors and Executive Officers, the Board of Corporate Auditors, and the Committee for Appointment and Remuneration, etc.

Firstly, ULVAC has a Board of Directors, which is a decision-making body for important management issues. The Board holds regular meetings once a month, as well as ad hoc meetings as necessary to ensure flexibility. The Board of Directors comprises 10 members, of whom four are external directors. Three of the external directors are designated as independent external directors. By virtue of this structure, ULVAC is not only able to make swift and efficient judgments concerning important management issues, but is also able to achieve fair, impartial, and highly transparent deliberation, as well as operational supervision.

Next, with the introduction of an executive officer system, executive officers exercise executive functions, having been granted a certain amount of responsibility and authority over their designated areas, through delegation by the Board of Directors. ULVAC also has a Board of Executive Officers that comprises a total of 16 internal directors and executive officers. The Board of Executive Officers holds regular meetings once a month, as well as ad hoc meetings as necessary. By virtue of this structure, we have achieved more flexible and swifter business operations that are appropriate for a rapidly changing business environment, based on a clear expression of the responsibilities and authority of each executive officer.

In addition, ULVAC has a Board of Corporate Auditors, which performs auditing and supervision of management decision-making and business operations. The Board of Corporate Auditors comprises four members, of whom two are external auditors. Both of the external auditors are designated as independent external auditors. We ensure full auditing and supervisory functions through close links between auditors and the Internal Auditing Office and the independent auditor, whose independence is ensured, as well as through attendance and comments by auditors at important meetings, such as meetings of the Board of Directors and the Board of Standing Directors and Executive Officers, and through regular meetings between the Internal Auditing Office and the President, etc. By virtue of this structure, we have achieved rigorous, fair, impartial, and transparent auditing and supervisory functions, ensuring that each auditor obtains sufficient information.

Furthermore, we have a Committee for Appointment and Remuneration, etc., for instances that require objective determination of important matters, such as the appointment and remuneration of directors and executive officers. The Committee for Appointment and Remuneration, etc., comprises seven members, of whom five are independent external directors or independent external auditors. Of the remaining two members, one is an external director. By having these kinds of advisory bodies for the Board of Directors, we are able to achieve fair, impartial, and highly transparent deliberations with regard to especially important management decisions, and increase the effectiveness of the Board of Directors.

ULVAC’s management and operation of the Board of Directors

For ULVAC to become a leading global enterprise, ULVAC needs to make efforts to further enhance corporate value by strengthening not only technological capabilities and manufacturing innovation but also global competitiveness and entry to new business fields. At the same time, it is essential to enhance the effectiveness of governance by the Board of Directors.

My role
Utilizing the knowledge I have accumulated in the course of my career, I will supervise management in terms of business orientation and risk management from an objective stance as an independent officer.

My guiding principles are to act swiftly, share information, and ensure corporate governance and compliance. With the aim of further enhancing the effectiveness of governance, I am committed to taking actions and making decisions that are in the interest of our stakeholders and will meet with the objectives.

My expectations regarding ULVAC’s sustainable growth
With a view to enhancing corporate value and achieving sustainable growth so as to become a leading global enterprise, human resources development is the top priority. I think it is important to develop excellent personnel with a global perspective who are well versed in the liberal arts, can adapt to conditions around the world, are decisive when they encounter issues involving contradictions, can envisage various scenarios, are sensitive to risk, and can exercise leadership.

Secondly, it is vital to strengthen technological capabilities. You can’t create a world’s first without imagination and sensitivity, and you can’t create the best in the world without innovation. So it will be necessary to further globalize R&D and seek cooperation with other companies and external human resources that transcend the conventional framework.

Thirdly, it is important to strengthen global information capabilities. I would like to see business management accelerated by enhancing the quality of operations to a global standard and through information sharing.

Finally, I would like to see ULVAC’s group-wide initiatives for sustainable management flourishing as such initiatives have an increasingly powerful impact on corporate value.

I will do my utmost to contribute to the success of ULVAC’s ongoing efforts to achieve sustainable growth, enhance corporate value, and become a leading global enterprise.
Compliance

The ULVAC Group views compliance as a vitally important issue. In addition to conducting awareness-raising activities so that each person in the ULVAC Group acts with a spirit of compliance, we are establishing and operating a range of institutions and regulations to ensure thorough compliance.

Establishment of Corporate Code of Conduct

The ULVAC Group has established a Corporate Code of Conduct comprising 18 items, conducted education, and distributed booklets to inculcate a culture of compliance, in order to ensure that the execution of the duties of officers and employees is compliant with laws and regulations and internal rules, and that we fulfill our corporate social responsibility.

Compliance Education

ULVAC is working to create a culture of compliance through awareness-raising activities. As part of this effort, we are providing opportunities for regular and ad hoc education and training.

Whistleblowing System

ULVAC has adopted a whistleblowing system operated through the Internal Auditing Office, which is an independent body. The Internal Auditing Office also serves as the secretariat for the Compliance Committee, and it is structured to give full consideration to confidentiality throughout the process of investigating the content of reports. This system does not prevent the person making the report from selecting other institutions or organizations within the Company as the destination for the report, and in such case, the report shall also be handled appropriately.

Individuals making reports are not treated unfairly in any way. Reports can also be submitted anonymously.

After a whistleblower report has been received, the initial response is for the Compliance Committee to conduct an investigation in order to establish the facts. This investigation is particularly mindful of fairness, and is conducted judiciously and thoroughly. If necessary, assistance may be sought from external experts, such as lawyers, and thorough interviews that are as wide-ranging as necessary may be conducted and analyzed.

The president chairs the Compliance Committee and the members of the Committee observe a strict duty of confidentiality in carrying out their duties.

Handling of Violations

In the event that, based on the results of an investigation by the Compliance Committee, it is deemed that a violation of laws or regulations has been committed, then the opinion of an external expert, such as a lawyer, may be sought as necessary, steps will be taken to ensure that the violation ceases with immediate effect and improvement measures will be implemented, and those involved in the violation will be dealt with after deliberation by the appropriate bodies. In addition, the root causes of the violation are also investigated in order to formulate effective measures for preventing recurrence.

Risk Management

The ULVAC Group considers that responding appropriately to increasingly complex and diverse risk factors leads to the creation of governance structures that contribute to the fulfillment of legal requirements and the creation of internal control structures, and by extension, the medium- to long-term improvement of corporate value. We are expanding systems that can respond appropriately to risk factors through identification, classification, analysis, and evaluation, and we are working to increase corporate value by reflecting them in our management strategy.

Risk Management System

In regard to risk management initiatives, ULVAC has established rules concerning its risk management system, classifying a broad range of risks from various perspectives, and designated the control offices primarily responsible for risk management according to the classification of risks. Furthermore, these risk control offices identify more specific risks and respond to them. We work to ensure that these offices efficiently gather important information in operating the risk management system. In addition, in order to share and evaluate information concerning the operation of the risk management system on a company-wide basis, we have a Risk Management Committee, which is chaired by the president, and mainly comprises representatives of the risk control offices with primary responsibility for risk management. The Risk Management Committee holds regular twice-yearly meetings as an umbrella organization for risk management, and it determines company-wide basic policies, monitors the state of management and administration, and considers any improvements that can be made, etc. Furthermore, initiatives at ULVAC are implemented at ULVAC Group companies as appropriate for the scale and business type of the company in question.
Quality Assurance and Product Safety

The ULVAC Group is engaging in initiatives worldwide to meet customer expectations for high-level, safe ULVAC quality through assurance activities centered on Front Loading.*

ULVAC Group Quality Policy

“Product quality assurance strengthens our customers’ confidence in ULVAC.”

* The ULVAC Group is committed to promote ULVAC quality through front-loading in all business processes, including development, sales, production, and service, and through offering products and services which include needs from all parts of the world.

Global Integrated Certification for ISO 9001 and ISO 14001

As of the end of December 2017, 38 ULVAC Group companies had completed integrated certification for the 2015 versions of ISO quality and environmental management systems. We have aligned quality policies groupwide and put in place a framework for addressing quality issues and deploying improvements globally.

Quality Management System

Global Quality Assurance Committee (Central secretariat: ULVAC)

Group-wide implementation of the quality policy

Initial inspection of suppliers (supplier audit) implemented in accordance with the Group policy

Quality Improvement through Front Loading

The Group promotes quality creation by implementing Front Loading in all business processes. At ULVAC, the term Front Loading refers to activities to ensure that nonconformities do not occur in the subsequent processes. Front Loading involves identifying all risks and considering countermeasures before starting work by performing technical reviews, simulations, verification, and other tasks before receipt of orders. In fiscal 2017, Front Loading again contributed substantially to preventing nonconformities, improving quality, and increasing profits.

Product Safety Activities

To deliver safe and secure ULVAC brand products to markets around the world, qualified safety assessors play a leading role in product safety assessments and continuously engage in activities to verify the required safety and quality at the drawing release and product shipment phases. In recent years, we have conducted group training and personnel exchanges at various locations, in addition to periodic exchange of information, for the purpose of constructing independent verification systems at the overseas production bases in step with expansion of production in the Asia region. In addition, foreign national qualified safety assessors belonging to overseas production bases have begun to actively contribute to product safety. We intend to continue to promote integrated Group product safety activities and link them to increases in customer satisfaction.

Global Production Bases Capable of Responding to the Shift to Larger Products and Mass Production

To respond to a shift to mass production of semiconductor production equipment for logic and a shift to larger equipment, such as FPD production equipment for G10.5 and OLED, our Japanese production bases in the Kyushu and Tohoku regions and overseas bases in China, South Korea, and Taiwan are continuing activities to build supply chains in their vicinity of the same level and quality as that of the ULVAC head office. In this way, by having the production bases take the lead in implementing local and optimal procurement, we aim to utilize the advantage of customer proximity in order to engage in global production at appropriate locations that flexibly respond to market conditions.

Communication with Suppliers

ULVAC holds supplier meetings three times a year to communicate production plans from the divisions in a timely manner and operations briefing meetings once a year as a forum for ULVAC management to directly explain to suppliers the business environment and prospects. To share policies and deepen relationships of trust with our suppliers, we take care to meticulously respond to their needs. For instance, we provide information for each business segment that incorporates delivery dates for procurement items based on the status of trade inquiries.

Supplier Management

In the current era of globalized production, accuracy of information on lead times, cost, and required specifications for materials and parts procurement is crucially important. If we do not introduce the right quantities of materials into production processes at the right times, goods will pile up in the supply chain, inconveniencing suppliers. To avoid this, we must further develop procurement mechanisms that utilize IT and data.

Much of the production in the equipment businesses, which account for the majority of ULVAC’s sales, is made-to-order production of unique products to meet individual customer needs, and in principle we do not hold inventory. We consider parts or materials piling up anywhere in the supply chain to be inventory and aim for total optimization of the supply chain by using indices to prevent inventory accumulation and visualizing inventory.

Procurement Policy

To conduct procurement activities in keeping with the Basic Corporate Philosophy and Management Policies, ULVAC has established, observes, and promotes the Basic Procurement Policy.

We also communicate our requirements for suppliers with respect to the environment, human rights, labor, compliance and other procurement-related matters to fulfill our social responsibilities not only within the Group but also throughout the supply chain.

For details, please see:
https://www.ulvac.co.jp/company/purchase/purchase2/
Human Resources

To achieve sustained growth, vitalized organizations must serve as a foundation enabling diverse human resources to fully demonstrate their potential. ULVAC will strengthen its management base by actively engaging in organization and human resource development and focusing on cultivating the leaders of tomorrow.

Human Resources and Organizational Development

In accordance with the Basic Policy for Human Resources Development, we are promoting the creation of synergy by diverse human resources.

ULVAC Basic Policy for Human Resources Development

We are conscious that the most important resources for corporate vitality and competitiveness are the personnel and the organizations in which they work. We are conducting the following human resources development, based on our corporate philosophy and basic management policy:

1. Human resources who respect other individuals, trust each other and fulfill their responsibilities
2. Human resources who can see the true nature of each issue and create revolutionary technologies and projects with passion and tenacity
3. Human resources who are full of aspirations to improve themselves and take voluntary actions to achieve goals
4. Human resources who have a global perspective and aim to take leadership in exploring the world

Establishment of the Human Resource Center

In recent years, a shift toward smart societies has been underway worldwide and seismic changes are taking place, namely, a wave of technological innovation and seismic changes are taking place, and diverse human resources to fully demonstrate their potential. ULVAC will strengthen its management base by actively engaging in organization and human resource development and focusing on cultivating the leaders of tomorrow.

Development and Operation of a Groupwide Education and Training System

The Human Resource Center is a dedicated human resources development organization whose purpose is to maximize the value of this critical asset. The Center flexibly and proactively implements job rotation within the Group. Its mission and role is to enhance knowledge and information, cultivate and refine, vitale, develop, and maximize the asset value of organizations and human resources by actively pursuing interactions with universities, research institutions, and companies in Japan and abroad.

Strengthening of Global Adaptability

Through the development of the capabilities of people and organizations, ULVAC will improve business promotion capabilities, strengthen the management base for sustained growth, contribute to further creation and accomplishments, and increase corporate value.

ULVAC Academy Portal

ULVAC is implementing the ULVAC Academy Portal groupwide under the concept of creating an environment that facilitates learning throughout the Group through the provision of training materials necessary for ULVAC’s production to those who need them. The ULVAC Academy Portal provides an environment that enables employees to study anytime, anywhere there is an Internet connection, even outside the company. In this way, ULVAC is creating mechanisms for raising the level of employee skills and demonstrating individual capabilities as well as those for consolidating, systematizing, and providing educational materials that are currently scattered among individuals, departments, and Group companies. With the portal, we aim to create a space where individuals can continuously manage their learning (progress and degree of comprehension) and their licenses and qualifications.

The ULVAC Academy Portal is a platform not only for more effective study driven by individual initiative through e-learning and training materials but also for group training, including practical skills training. It also presents ULVAC’s history and disseminates the latest Group information. In addition, the portal is used for distributing presentation materials and videos of lectures and briefings. Indeed, extensive use is made of video.

ULVAC conducted overseas training for directors and executives (in Europe, the U.S., and South Korea) in May 2018. We also actively engage in secondment and temporary assignment of employees, collaborative research, and other personnel exchanges with universities, research institutes, and companies. We will continue to engage in initiatives to enable employees to learn about the world beyond ULVAC and develop a global mindset. More than 800 employees attended the lectures, and many employees unable to attend in person viewed videos of the lectures at ULVAC Academy Portal. In a post-lecture questionnaire survey, more than 80% of participants indicated that they had learned or become aware of something. In fiscal 2018, in addition to holding lectures, we will provide a forum for discussing how to utilize the lecture content in the actual practice of business.
Creating Excellent Workplaces

To enable each employee in our diverse workforce to demonstrate his or her strengths with vigor and play creativity, it is necessary to create an excellent workplace with a greater sense of security and peace of mind. An excellent workplace environment, focusing mainly on the key enhancement and operation programs to enable each employee to work efficiently and live a fulfilling life.

Aspiring to be a company where every employee enjoys physical and mental health, is full of energy, and displays his or her full potential

In keeping with the belief that human resources are the source of value creation, ULVAC actively engages in initiatives to promote the health of employees.

To vigorously engage in health promotion activities, we have appointed an executive officer to serve as the Chief Health Promotion Officer and put in place a health promotion structure led by department general managers and the Health Promotion Office.

We have articulated a mission, namely, that of “Creating a corporate climate in which employees can energetically pursue work goals in good health,” and are promoting employee health, the foundation of MONODZUKURI, in accordance with two strategies: “Health risk reduction” and “Wellness improvement.”

The Global Manufacturing Technology Competition is value creation through the improvement and innovation of the health chain process based on the central theme, “Groupwide innovation of production technology to increase value.”

With the Global Business Improvement Competition, we aim to create mechanisms and measures to incite ULVAC’s management policies in day-to-day work, maximize groupwide synergy, and strengthen cross-organizational functions.

The purpose of the Skills Challenge is to develop a groupwide atmosphere of respect for skills and promote the sharing and transmission of skills by holding a skills level competition among Group companies.

Through these programs, we aim to make all employees aware of the importance of putting the corporate philosophy and management philosophy into practice in their work and linking their work to outcomes that contribute to achieving ULVAC’s vision.

Environment

workforce to demonstrate his or her strengths with vigor and play creativity, it is necessary to create an excellent workplace with a greater sense of security and peace of mind. An excellent workplace environment, focusing mainly on the key enhancement and operation programs to enable each employee to work efficiently and live a fulfilling life.

Human Resources Data

- Employee gender ratio (non-consolidated)
  - Male: 94.3%
  - Female: 5.7%

- Management gender ratio (non-consolidated)
  - Male: 98.1%
  - Female: 1.9%

- Number of new graduate recruits (non-consolidated)
  - 2015: 20
  - 2016: 23
  - 2017: 32
  - 2018: 35

- Physical strength age measurement at ULVAC
  - 2014: 17.7
  - 2015: 20.5
  - 2016: 24.1
  - 2017: 29.0

- Priority Activity 1 Health Risk Reduction: Making Walking a Habit

- ULVAC’s health risk reduction targets are “Health age” 3.0 years lower than actual age by fiscal 2020 and “Percentage of people with regular exercise habits of 25% or higher by fiscal 2020.”

- We consider it important to create the habit of walking and exercise to ensure that our employees are healthy in mind and body and able to fully demonstrate their capabilities. Accordingly, together with the health insurance association, we promote activities such as physical strength age measurement and walking events.

- As a result of engaging in these activities, the number of people who walk regularly is increasing each year (Fig. 1), and the health age is 2.86 years lower than actual age at ULVAC.

- Priority Activity 2 Wellness Improvement: Organization Vitalization

- Our wellness improvement target is “An increase of 20% in the number of people who work energetically by fiscal 2020 compared to fiscal 2014.”

- Senior management and line managers, who play an important role in ensuring that employees work energetically, are taking the lead in promoting organization vitality activities, utilizing the results of a health check survey independently conducted at ULVAC.

- The number of departments that engage in these activities is gradually increasing, and the number of ULVAC employees who work enthusiastically is increasing each year (Fig. 3).

- Also, the number of employees taking leave due to illness has decreased dramatically compared to fiscal 2014, when ULVAC began actively implementing organization vitality measures (Fig. 4).

- These activities have been admired, and ULVAC was recognized as a 2018 Certified Health and Productivity Management Organization (White 500).

Analysis and Evaluation

Analysis of data from ULVAC’s health check survey indicates that people with regular exercise habits show strong work vitality, especially “strengths and challenges” necessary for enthusiastic work (Fig. 2). At ULVAC, we will continue to reinforce human resources development and improve business promotion capabilities through health promotion activities.

- Comment by the Chief Health Promotion Officer

Ryo Matsumoto
Executive Officer in charge of General Administration & Personnel Department

ULVAC is implementing initiatives relating to employee health. Our walking program has been particularly popular, with some 50% of employees participating. We also provide health assistance at the presymptomatic stage in cooperation with the Kanagawa Prefectural Government.

We will continue efforts to further develop health promotion activities to enable each employee to work with vigor and enthusiasm.
Occupational Safety and Health

The ULVAC Group has made “Safety First” the fundamental principle of business management. By operating our Occupational Safety and Health Management System (OSHMS) focused on risk assessment, we endeavor to ensure safety of the products and services used by our customers and create dynamic workplaces where Group employees can work in good physical and mental health.

Approach on Occupational Safety and Health

In the execution of development, manufacturing, transport, installation, maintenance and other business processes, everyone in the ULVAC Group, from senior management to line workers, is encouraged to seize the initiative in continuously undertaking improvements placing the highest priority on safety, striving to maintain and improve the safety of everyone involved and ensure a healthy working environment.

**ULVAC Safety Basic Policy**

1. Compliance to the codes/regulations, and implementation of risk assessment
   - Complies with Codes of Occupational Safety & Health Management and Rules according to ULVAC's OSHMS, and conducts Risk Assessment in order to perform Occupational Safety & Health Management activities with the help of all employees.

2. Assurance of safety of ULVAC’s products
   - Complies with ULVAC’s standard for safety design and perform risk assessment of our products, in order to deliver safe products and services to our customers.

3. Planned education about Occupational Safety & Health & Product Safety
   - For all employees and contractors, perform Occupational Safety & Health training based on ULVAC Safety Management system, while offering scheduled Product Safety training for our users.

4. Promotion of mental health care
   - Promote mental health care achieve a healthy, vigorous workplace environment.

5. Global expansion of ULVAC group
   - Through the Safety & Health promotion activities by the Global Safety Management Committee, we will try to create an appropriate workplace environment for the whole ULVAC group, and contribute to prosperity of our business.

**Aiming for a Type-V Zero Accident Record**

To ensure the safety and good health of its customers and employees, the ULVAC Group regularly holds meetings of the Global Safety Committee, and all Group companies promote safety and health activities in an integrated manner. Each Group company operates the safety management system, and everyone is engaged in safety and health activities, such as management reviews conducted by the CEO and risk assessments performed by each employee. The Chigasaki Plant achieved a Type-IV zero accident record (total of 10.5 million hours) in 2017 and now aims to achieve a Type-V zero accident record (total of 15.8 million hours), the highest level provided by the Ministry of Health, Labour and Welfare. With “Safety First” as their motto, all Group companies will continue their efforts to extend the zero accident record.

**Safety and Health Activities**

ULVAC KOREA, Ltd. has installed digital signage and shows videos on safety, health, and the environment to raise employee safety awareness. ULVAC CRYOGENICS KOREA INCORPORATED has installed employee-designed notice boards at workplace entrances for use in providing safety, health, and environmental information to employees. These Group companies will continue to update information and campaign activities as necessary to ensure that their employees fully recognize the importance of safety, health, environmental considerations and adherence to company rules.

**Environment**

Based on its environmental policy, the ULVAC Group provides products that allow customers to embrace the feeling that they have made environmental contributions. Through management and reduction of energy consumption and other efforts, we are working to minimize environmental impacts. As we have a global production system, we are working to gain integrated ISO14001 certification so as to strengthen governance, ensuring information sharing among Group companies and swift implementation of instructions issued by top management. The ULVAC Group will continue its efforts to reduce environmental impacts through its products.

**Environmental Philosophy**

The ULVAC Group is tackling protection of the global environment, one of the major issues confronting people worldwide. We will consider environmental conservation in all aspects of our business activities and will contribute to realization of a better living environment and a more affluent society.

**Environmental Policy**

Develop energy-saving products, reduce the use of natural resources and protect the environment.

1) ULVAC Group products/Final products
2) ULVAC Group manufacturing process

**Environmental Activities in Fiscal 2017**

Although production volume increased, total waste emissions decreased by approximately 14% compared with the previous fiscal year. This decrease was largely attributable to the increase of the recovery rate of valuable materials to 29%. As recovery of valuable materials is important also from the perspective of material recycling, we will continue to promote it throughout the ULVAC Group.

We are also implementing groupwide initiatives, including visualization of wattage, preparation and utilization of a manual for energy saving, concentration of locations where electricity-intensive activities are conducted, and 100% conversion to LED lighting for factories and offices, in order to reduce energy (electricity) consumption.

The ULVAC Group will continue to promote environmental management activities in order to reduce environmental impacts derived from its business activities.
Basis for Value Creation

Environment

Initiatives through Products

LS series new dry vacuum pump achieves both high pumping speed and low power consumption

Components Division, ULVAC, Inc.

This product’s principal characteristic is the simultaneous achievement of both high pumping speed and low power consumption. While achieving high pumping speed at near atmospheric pressure thanks to the newly developed screw rotor, the built-in patented ECO-SHOCK minimizes power consumption, resulting in realization of seemingly contradictory technological features. Product reliability has been enhanced through operation tests in high-temperature, low-temperature, and dusty (equivalent to IP-44) environments, in addition to repeated atmospheric vacuum pumping at short intervals. The Components Division develops and sells dry vacuum pumps. Rising demand for electronic devices, smartphones and communication technology-related items in the global market are a tail wind for this product.

*1 IP rating indicates the level of protection against dust and water

Cat-CVD equipment for silicon heterojunction solar cells improves conversion efficiency

FPD+PV Division, ULVAC, Inc.

Renewables are attracting attention as sources of environmentally friendly energy because they do not emit CO2. For photovoltaic power generation, in which solar cells are used to obtain power, heterojunction solar cells capable of converting energy from sunlight into electricity more efficiently are a focus of high expectations. Consisting of monocrystalline silicon and amorphous silicon thin films, silicon heterojunction solar cells are distinguished by their higher energy conversion efficiency compared with conventional monocrystalline silicon and amorphous silicon thin films, silicon heterojunction solar cells. ULVAC has developed a system that employs the catalytic chemical vapor deposition (Cat-CVD*) method, which is subject to less damage by plasma, to provide high-quality amorphous silicon thin films offering greater conversion efficiency.

*2 Cat-CVD: A chemical vapor deposition method that uses a heated catalyst to chemically decompose source gas molecules by catalytic cracking reaction and forms thin films by transporting the free radicals to the substrate.

Heat recovery by increasing wastewater recovery

ULVAC COATING CORPORATION

Massive water consumption in the film deposition process was an issue at ULVAC COATING CORPORATION. The company is working to minimize its environmental impact by setting the reduction of water consumption as a quality and environmental objective. The company has reduced water consumption by recycling wastewater discharged from the production line and also reduced consumption of energy used for heating water, because the temperature of wastewater is higher than that of tap water. The reduction in LNG consumption is equivalent to approximately 250 tons of CO2 emissions a year.

Mindful of the impact on water resources in the community where it operates, ULVAC COATING continues to promote recycling of wastewater so as to reduce water and energy consumption.

Tree planting

ULVAC (SUZHOU) CO., LTD.

In March 2018, ULVAC (SUZHOU) CO., LTD. held its fourth tree-planting event, planting 29 cherry trees as part of its ongoing effort to enrich the environment.

The company will continue this initiative to raise awareness of the importance of environmental protection.

Social Contribution Activities

The ULVAC Group will continue to contribute to local communities and the global community by effectively utilizing its technologies and human resources to help resolve various social issues.

Japan (Chigasaki)

ULVAC conducts plant tours and vacuum demonstration classes, mainly for elementary schools and other public institutions, local residents, and shareholders. In 2017, on more than five occasions we engaged in joint projects with Chigasaki City, holding events for the purpose of contributing to community youth development and education activities followed by plant tours and vacuum demonstrations. We will continue to deepen ties to local communities and educational groups through activities designed to encourage as many people as possible to take an informed interest in science.

Malaysia

Water supply assistance during a water stoppage

In March 2018, a water stoppage occurred in Selangor State due to an accident at a water purification plant. ULVAC MALAYSIA SDN. BHD. hastened to supply 20,000 liters of water reserved for use at a special cleaning treatment plant to nearby residents. The ULVAC Group will continue to engage in activities to help resolve various social issues and seek harmonious coexistence with local communities.

Japan (Chigasaki)

Sale of cookies by a social welfare corporation

Syonokai, a social welfare corporation located in Chigasaki, Kanagawa Prefecture, sells homemade cookies once a month at the ULVAC Head Office/Plant, thus providing an opportunity for persons with disabilities to participate in society. Syonokai has sold cookies at a space provided next to the cafeteria at lunchtime since 2010. We will continue to encourage employment of persons with disabilities by supporting the purchase of cookies.

Thailand

Lecture on the fundamentals of vacuums at Thai-Nichi Institute of Technology

At the request of Thai-Nichi Institute of Technology, in February 2018 ULVAC (THAILAND) LTD. gave a lecture on the fundamentals of vacuums, covering the types and structure of vacuum pumps, vacuum measurement, and related topics for students of the institute. The company’s acceptance of student interns since 2017 led to the request.

Although vacuum technology is an unfamiliar field in Thailand, when an engineer explains that it is a building block of industry, many students develop an interest. The company will continue to support the development of the next generation of engineers by various means, including the acceptance of student interns.
Business Results: Review of Operations for Fiscal 2017 and Outlook

Business results for Fiscal 2017

In the electronics market in which the ULVAC Group operates, semiconductor memory manufacturers increased capital investment in response to expanding memory demand fueled mainly by greater demand for servers for data center applications. In the flat panel display (FPD) sector, continued capital investment for manufacturing OLED panels for smartphones and large LCD panels for TVs remained brisk.

In these circumstances, for the fiscal year ended June 30, 2018 (fiscal 2017), orders received increased 3.2% year on year to ¥243.0 billion, net sales rose 7.5% to ¥249.3 billion, operating profit rose 20.0% to ¥35.4 billion, and ordinary profit increased 24.2% to ¥36.9 billion. Net income surged 46.7% to ¥35.9 billion mainly because of additional recording of deferred tax assets.

Greater Profitability

Because of an increase in the proportion of semiconductor and electronic devices production equipment, which have high profit margins, both the gross profit margin and the operating profit margin rose. While total assets increased in line with increases in orders received and net sales, net assets also increased by ¥49.2 billion as a result of increases in net income and market valuation of investment securities. Thus, the equity ratio improved to 49.5%. Interest-bearing debt decreased by ¥7.0 billion to ¥35.7 billion.

Review of Operations by Business Segment

Vacuum Equipment Business

For the vacuum equipment business, orders received amounted to ¥209,707 million, orders back-log was ¥94,171 million, net sales were ¥216,652 million, and operating profit amounted to ¥32,411 million.

- **FPD and PV production equipment**
  Orders received for FPD production equipment were below the level of the previous fiscal year because order-taking in the second half was temporarily lackluster despite recording of orders received, mainly from customers in China, for large LCD production equipment for TVs and small to medium-sized OLED production equipment for smartphones. On the other hand, net sales were robust and virtually the same level as the previous fiscal year.

- **Semiconductor and electronic device production equipment**
  Regarding semiconductor production equipment, in line with the expansion of investment for memory, demand for sputtering equipment and the natural oxidized film removing system for NAND Flash memory, DRAM, and next-generation non-volatile memory increased. Regarding electronic device production equipment, demand for high-performance device production equipment for mobile devices was firm, and as a result, orders received and net sales greatly exceeded those for the previous fiscal year.

Components

Both orders received and net sales exceeded those for the previous fiscal year because of robust demand for cryopumps for mounting on OLED production equipment, as well as for vacuum pumps and measuring equipment for the FPD, semiconductor, and electronic device industries and for the automotive-related industry.

Industrial equipment

Both orders received and net sales exceeded those for the previous fiscal year, led by vacuum heat treatment furnaces for production of automotive components and leak testers.

Vacuum Application Business

For the vacuum application business, orders received amounted to ¥33,273 million, orders back-log was ¥5,812 million, net sales were ¥32,619 million, and operating profit amounted to ¥2,957 million.

Materials

Both orders received and net sales exceeded the previous year’s level, centering on sputtering target materials for LCDs.

Others

Demand for mask blanks was generally firm, reflecting an increase in demand for high-definition, high-performance display panels and semiconductors for in-vehicle and industrial applications. On the other hand, analysis equipment-related net sales were lower than the previous fiscal year’s level.

Outlook

The ULVAC Group is implementing the mid-term management plan that covers the period up to June 30, 2020. For fiscal 2017, the first year of the plan, net sales, operating profit, ordinary profit, and net income exceeded the initial forecast. Moreover, operating profit for fiscal 2017 exceeded the target set for the final year (fiscal 2019) of the mid-term management plan.

The framework of the current mid-term management plan, including “strengthening of management base” and “key strategies,” will remain unchanged from fiscal 2018 onward, but we revised the targets for net sales and operating profit for the final year of the plan to ¥265 billion (+¥15 billion) and ¥38 billion (+¥3 billion), respectively. We are tackling “management reform” to achieve the next round of growth following the current mid-term management plan and aim for net sales of ¥300 billion and an operating profit margin of 16% in fiscal 2021. Seizing the business opportunities created by technological innovation, ULVAC will strive to further improve the profit structure and financial strength to accelerate initiatives toward sustainable growth and improved corporate value.
## Consolidated Balance Sheets

### Assets

#### Current assets

<table>
<thead>
<tr>
<th>Item</th>
<th>FY2016 (As of June 30, 2017)</th>
<th>FY2017 (As of June 30, 2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash on hand and in banks</td>
<td>56,434</td>
<td>57,074</td>
</tr>
<tr>
<td>Notes and accounts receivable, trade</td>
<td>70,519</td>
<td>87,276</td>
</tr>
<tr>
<td>Merchandise and finished goods</td>
<td>5,097</td>
<td>4,615</td>
</tr>
<tr>
<td>Work in process</td>
<td>15,880</td>
<td>23,618</td>
</tr>
<tr>
<td>Raw materials and supplies</td>
<td>9,240</td>
<td>10,847</td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>6,027</td>
<td>5,032</td>
</tr>
<tr>
<td>Other</td>
<td>7,299</td>
<td>9,509</td>
</tr>
<tr>
<td>Allowance for doubtful accounts</td>
<td>(811)</td>
<td>(914)</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td><strong>169,685</strong></td>
<td><strong>197,058</strong></td>
</tr>
</tbody>
</table>

#### Non-current assets

<table>
<thead>
<tr>
<th>Property, plant and equipment</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings and structures</td>
<td>79,246</td>
<td>80,982</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(47,018)</td>
<td>(49,168)</td>
</tr>
<tr>
<td>Machinery, equipment and vehicles</td>
<td>65,343</td>
<td>69,543</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(50,892)</td>
<td>(53,161)</td>
</tr>
<tr>
<td>Tools, furniture and fixtures</td>
<td>14,451</td>
<td>16,382</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(12,506)</td>
<td>(12,899)</td>
</tr>
<tr>
<td>Tools, furniture and fixtures, net</td>
<td>1,947</td>
<td>1,839</td>
</tr>
<tr>
<td>Land</td>
<td>8,096</td>
<td>8,624</td>
</tr>
<tr>
<td>Leased assets</td>
<td>1,836</td>
<td>1,872</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(1,002)</td>
<td>(1,142)</td>
</tr>
<tr>
<td>Leased assets, net</td>
<td>834</td>
<td>731</td>
</tr>
<tr>
<td>Construction in progress</td>
<td>3,040</td>
<td>4,907</td>
</tr>
<tr>
<td><strong>Total property, plant and equipment</strong></td>
<td><strong>60,306</strong></td>
<td><strong>64,297</strong></td>
</tr>
</tbody>
</table>

#### Intangible assets

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leased assets</td>
<td>67</td>
<td>81</td>
</tr>
<tr>
<td>Software</td>
<td>690</td>
<td>844</td>
</tr>
<tr>
<td>Other</td>
<td>2,815</td>
<td>2,529</td>
</tr>
<tr>
<td><strong>Total intangible assets</strong></td>
<td><strong>3,573</strong></td>
<td><strong>3,454</strong></td>
</tr>
</tbody>
</table>

#### Investments and other assets

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment securities</td>
<td>4,389</td>
<td>25,562</td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>2,298</td>
<td>2,620</td>
</tr>
<tr>
<td>Other</td>
<td>7,107</td>
<td>6,812</td>
</tr>
<tr>
<td>Allowance for doubtful accounts</td>
<td>(2,051)</td>
<td>(2,048)</td>
</tr>
<tr>
<td><strong>Total investments and other assets</strong></td>
<td><strong>11,743</strong></td>
<td><strong>32,946</strong></td>
</tr>
</tbody>
</table>

### Liabilities

#### Current liabilities

<table>
<thead>
<tr>
<th>Item</th>
<th>FY2016 (As of June 30, 2017)</th>
<th>FY2017 (As of June 30, 2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes and accounts payable, trade</td>
<td>48,829</td>
<td>55,566</td>
</tr>
<tr>
<td>Short-term loans payable</td>
<td>30,199</td>
<td>21,539</td>
</tr>
<tr>
<td>Lease obligations</td>
<td>315</td>
<td>300</td>
</tr>
<tr>
<td>Income taxes payable</td>
<td>2,525</td>
<td>4,534</td>
</tr>
<tr>
<td>Advances received</td>
<td>16,908</td>
<td>16,739</td>
</tr>
<tr>
<td>Deferred tax liabilities</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Accrued employees’ bonuses</td>
<td>2,738</td>
<td>3,185</td>
</tr>
<tr>
<td>Accrued directors’ bonuses</td>
<td>401</td>
<td>512</td>
</tr>
<tr>
<td>Accrued warranty costs</td>
<td>2,069</td>
<td>1,742</td>
</tr>
<tr>
<td>Provision for loss on order received</td>
<td>785</td>
<td>1,074</td>
</tr>
<tr>
<td>Other</td>
<td>11,175</td>
<td>13,637</td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td><strong>115,954</strong></td>
<td><strong>118,845</strong></td>
</tr>
</tbody>
</table>

#### Long-term liabilities

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term loans payable</td>
<td>12,528</td>
<td>14,150</td>
</tr>
<tr>
<td>Lease obligations</td>
<td>692</td>
<td>607</td>
</tr>
<tr>
<td>Deferred tax liabilities</td>
<td>1,408</td>
<td>343</td>
</tr>
<tr>
<td>Net defined benefit liability</td>
<td>8,311</td>
<td>8,370</td>
</tr>
<tr>
<td>Accrued directors’ retirement benefits</td>
<td>335</td>
<td>272</td>
</tr>
<tr>
<td>Provision for board benefit trust</td>
<td>74</td>
<td>134</td>
</tr>
<tr>
<td>Asset retirement obligations</td>
<td>392</td>
<td>395</td>
</tr>
<tr>
<td>Other</td>
<td>694</td>
<td>568</td>
</tr>
<tr>
<td><strong>Total long-term liabilities</strong></td>
<td><strong>24,436</strong></td>
<td><strong>24,845</strong></td>
</tr>
</tbody>
</table>

### Net Assets

#### Shareholders’ equity

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital stock</td>
<td>20,873</td>
<td>20,873</td>
</tr>
<tr>
<td>Capital surplus</td>
<td>3,912</td>
<td>3,912</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>73,801</td>
<td>107,238</td>
</tr>
<tr>
<td>Treasury shares</td>
<td>(271)</td>
<td>(266)</td>
</tr>
<tr>
<td><strong>Total shareholders’ equity</strong></td>
<td><strong>98,315</strong></td>
<td><strong>131,756</strong></td>
</tr>
</tbody>
</table>

#### Accumulated other comprehensive income

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuation difference on available-for-sale securities</td>
<td>491</td>
<td>14,950</td>
</tr>
<tr>
<td>Foreign currency translation adjustment</td>
<td>2,480</td>
<td>2,579</td>
</tr>
<tr>
<td>Remeasurements of defined benefit plans</td>
<td>(2,599)</td>
<td>(1,753)</td>
</tr>
<tr>
<td><strong>Total accumulated other comprehensive income</strong></td>
<td><strong>372</strong></td>
<td><strong>15,775</strong></td>
</tr>
</tbody>
</table>

### Financial Data/Corporate Information

#### Consolidated Financial Statements

<table>
<thead>
<tr>
<th>Item</th>
<th>FY2016 (As of June 30, 2017)</th>
<th>FY2017 (As of June 30, 2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total net assets</td>
<td>245,306</td>
<td>297,754</td>
</tr>
</tbody>
</table>

#### Total liabilities and net assets

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total liabilities</strong></td>
<td><strong>140,389</strong></td>
<td><strong>143,685</strong></td>
</tr>
<tr>
<td><strong>Total net assets</strong></td>
<td><strong>104,917</strong></td>
<td><strong>154,069</strong></td>
</tr>
</tbody>
</table>
### Consolidated Statements of Income

#### (Millions of yen)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net sales</strong></td>
<td>231,831</td>
<td>249,271</td>
</tr>
<tr>
<td><strong>Cost of sales</strong></td>
<td>168,001</td>
<td>176,163</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>63,829</td>
<td>73,108</td>
</tr>
<tr>
<td><strong>Selling, general and administrative expenses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selling expenses</td>
<td>14,818</td>
<td>15,703</td>
</tr>
<tr>
<td>General and administrative expenses</td>
<td>19,543</td>
<td>22,054</td>
</tr>
<tr>
<td><strong>Total selling, general and administrative expenses</strong></td>
<td>34,361</td>
<td>37,757</td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td>29,468</td>
<td>35,357</td>
</tr>
<tr>
<td><strong>Non-operating income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest income</td>
<td>117</td>
<td>157</td>
</tr>
<tr>
<td>Dividend income</td>
<td>302</td>
<td>470</td>
</tr>
<tr>
<td>Rent income</td>
<td>297</td>
<td>307</td>
</tr>
<tr>
<td>Insurance and dividends income</td>
<td>259</td>
<td>463</td>
</tr>
<tr>
<td>Foreign exchange gains</td>
<td>—</td>
<td>352</td>
</tr>
<tr>
<td>Share of profit of entities accounted for using equity method</td>
<td>203</td>
<td>426</td>
</tr>
<tr>
<td>Other</td>
<td>572</td>
<td>464</td>
</tr>
<tr>
<td><strong>Total non-operating income</strong></td>
<td>1,756</td>
<td>2,637</td>
</tr>
<tr>
<td><strong>Non-operating expenses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest expenses</td>
<td>511</td>
<td>349</td>
</tr>
<tr>
<td>Other</td>
<td>992</td>
<td>727</td>
</tr>
<tr>
<td><strong>Total non-operating expenses</strong></td>
<td>1,503</td>
<td>1,076</td>
</tr>
<tr>
<td><strong>Ordinary profit</strong></td>
<td>29,716</td>
<td>38,907</td>
</tr>
<tr>
<td><strong>Extraordinary income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gain on sales of non-current assets</td>
<td>35</td>
<td>—</td>
</tr>
<tr>
<td>Gain on sales of investment securities</td>
<td>81</td>
<td>2,002</td>
</tr>
<tr>
<td><strong>Total extraordinary income</strong></td>
<td>117</td>
<td>2,022</td>
</tr>
<tr>
<td><strong>Extraordinary losses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss on retirement of non-current assets</td>
<td>643</td>
<td>382</td>
</tr>
<tr>
<td>Loss on sales of non-current assets</td>
<td>423</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total extraordinary losses</strong></td>
<td>1,066</td>
<td>382</td>
</tr>
<tr>
<td><strong>Income before income taxes</strong></td>
<td>28,768</td>
<td>38,527</td>
</tr>
<tr>
<td>Current income taxes</td>
<td>4,516</td>
<td>7,309</td>
</tr>
<tr>
<td>Deferred income taxes</td>
<td>(1,599)</td>
<td>(5,537)</td>
</tr>
<tr>
<td><strong>Total income taxes</strong></td>
<td>2,917</td>
<td>1,772</td>
</tr>
<tr>
<td><strong>Net income</strong></td>
<td>25,819</td>
<td>37,155</td>
</tr>
<tr>
<td><strong>Net income attributable to non-controlling interests</strong></td>
<td>1,342</td>
<td>1,250</td>
</tr>
<tr>
<td><strong>Net income attributable to owners of parent</strong></td>
<td>24,477</td>
<td>35,905</td>
</tr>
</tbody>
</table>

### Consolidated Statements of Comprehensive Income

#### (Millions of yen)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net income</strong></td>
<td>25,819</td>
<td>37,155</td>
</tr>
<tr>
<td><strong>Other comprehensive income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valuation difference on available-for-sale securities</td>
<td>364</td>
<td>14,456</td>
</tr>
<tr>
<td>Foreign currency translation adjustment</td>
<td>3,390</td>
<td>113</td>
</tr>
<tr>
<td>Remeasurements of defined benefit plans, net of tax</td>
<td>224</td>
<td>845</td>
</tr>
<tr>
<td>Share of other comprehensive income of entities accounted for using equity method</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total other comprehensive income</strong></td>
<td>1,989</td>
<td>16,418</td>
</tr>
<tr>
<td><strong>Comprehensive income</strong></td>
<td>28,798</td>
<td>52,576</td>
</tr>
<tr>
<td><strong>Comprehensive income attributable to:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owners of parent</td>
<td>28,200</td>
<td>51,307</td>
</tr>
<tr>
<td>Non-controlling interests</td>
<td>1,599</td>
<td>1,263</td>
</tr>
</tbody>
</table>

### Consolidated Statements of Cash Flows

#### (Millions of yen)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income before income taxes</td>
<td>28,768</td>
<td>38,527</td>
</tr>
<tr>
<td>Depreciation</td>
<td>6,418</td>
<td>6,541</td>
</tr>
<tr>
<td>Increase (decrease) in allowance for doubtful accounts</td>
<td>(171)</td>
<td>97</td>
</tr>
<tr>
<td>Increase (decrease) in accrued employees' bonuses</td>
<td>403</td>
<td>473</td>
</tr>
<tr>
<td>Increase (decrease) in net defined benefit liability</td>
<td>(247)</td>
<td>182</td>
</tr>
<tr>
<td>Increase (decrease) in accrued directors' retirement benefits</td>
<td>16</td>
<td>(63)</td>
</tr>
<tr>
<td>Increase (decrease) in provision for board benefit trust</td>
<td>74</td>
<td>60</td>
</tr>
<tr>
<td>Increase (decrease) in accrued warranty costs</td>
<td>32</td>
<td>(321)</td>
</tr>
<tr>
<td>Increase (decrease) in provision for loss on order received</td>
<td>227</td>
<td>289</td>
</tr>
<tr>
<td>Interest and dividend income</td>
<td>(419)</td>
<td>(628)</td>
</tr>
<tr>
<td>Interest expenses</td>
<td>511</td>
<td>349</td>
</tr>
<tr>
<td>Subsidy income</td>
<td>980</td>
<td>980</td>
</tr>
<tr>
<td>Share of (profit) loss of entities accounted for using equity method</td>
<td>(203)</td>
<td>(426)</td>
</tr>
<tr>
<td>Loss (gain) on sales of investment securities</td>
<td>(81)</td>
<td>(2,022)</td>
</tr>
<tr>
<td>Loss (gain) on sales of non-current assets</td>
<td>387</td>
<td>—</td>
</tr>
<tr>
<td>Decrease (increase) in notes and accounts receivable - trade</td>
<td>(10,732)</td>
<td>(16,748)</td>
</tr>
<tr>
<td>Decrease (increase) in inventories</td>
<td>(161)</td>
<td>(9,878)</td>
</tr>
<tr>
<td>Increase (decrease) in notes and accounts payable - trade</td>
<td>12,680</td>
<td>6,789</td>
</tr>
<tr>
<td>Increase (decrease) in advances received</td>
<td>2,634</td>
<td>(123)</td>
</tr>
<tr>
<td>Increase (decrease) in accrued consumption taxes</td>
<td>76</td>
<td>(241)</td>
</tr>
<tr>
<td><strong>Net cash provided by (used in) operating activities</strong></td>
<td>37,818</td>
<td>19,086</td>
</tr>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payments into time deposits</td>
<td>(12,317)</td>
<td>(12,755)</td>
</tr>
<tr>
<td>Proceeds from withdrawal of time deposits</td>
<td>4,347</td>
<td>18,873</td>
</tr>
<tr>
<td>Purchase of property, plant and equipment and intangible assets</td>
<td>(6,510)</td>
<td>(9,869)</td>
</tr>
<tr>
<td>Proceeds from sales of property, plant and equipment and intangible assets</td>
<td>234</td>
<td>19</td>
</tr>
<tr>
<td>Proceeds from sales of investment securities</td>
<td>323</td>
<td>2,171</td>
</tr>
<tr>
<td>Payments for investments in capital of subsidiaries and associates</td>
<td>—</td>
<td>(250)</td>
</tr>
<tr>
<td>Proceeds from subsidy income</td>
<td>240</td>
<td>237</td>
</tr>
<tr>
<td><strong>Net cash provided by (used in) investing activities</strong></td>
<td>(13,771)</td>
<td>(1,564)</td>
</tr>
<tr>
<td><strong>Cash flows from financing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from sales of non-current assets</td>
<td>387</td>
<td>—</td>
</tr>
<tr>
<td><strong>Net cash provided by (used in) financing activities</strong></td>
<td>(3,580)</td>
<td>(10,734)</td>
</tr>
<tr>
<td>Effect of exchange rate change on cash and cash equivalents</td>
<td>1,168</td>
<td>4</td>
</tr>
<tr>
<td><strong>Net increase (decrease) in cash and cash equivalents</strong></td>
<td>2,693</td>
<td>6,793</td>
</tr>
<tr>
<td>Cash and cash equivalents at beginning of period</td>
<td>44,862</td>
<td>47,555</td>
</tr>
<tr>
<td>Cash and cash equivalents at end of period</td>
<td>47,555</td>
<td>54,348</td>
</tr>
</tbody>
</table>
Company Data/Stock Information

Company Profile
As of June 30, 2018
Name: ULVAC, Inc.
Trademark: ULVAC
Head office: 2500 Hagisono, Chigasaki, Kanagawa Prefecture, Japan
Established: August 23, 1952
Capital: ¥20,873,042,500
Number of employees: 6,439

Directors, Auditors and Executive Officers
As of September 27, 2018
President and Chief Executive Officer: Settsu Inoueita
Director and Executive Vice President: Mitsuhiro Matsumoto
Director and Managing Executive Officer: Hideaki Fujiki
Director and Managing Executive Officer: Shigemitsu Sato
Director and Senior Advisor: Kohtaro Shigeru
External Director: Akira Mihayashi
External Director: Norio Uchida
External Director: Tetsuya Shimada
External Director: Sadao Aoki
External Director: Tomoyasu Kondo
External Director: Kazuo Ikeda
External Director: Yu Jer Tsai

Capital: ¥20,873,042,500

ULVAC Group Companies
As of September 30, 2018

North America
- ULVAC Technologies, Inc.
- Physical Electronics USA, Inc.

Europe
- ULVAC, GmbH

Asia
- ULVAC, Ltd.

China
- ULVAC (CHINA) HOLDING CO., LTD.
- ULVAC (SHANGHAI) CO., LTD.
- ULVAC Orient (Chengdu) Co., Ltd.
- ULVAC Automation Technology (Shanghai) Corporation
- ULVAC Tianma Electric (Shanghai) Co., Ltd.
- ULVAC (Shenyang) Co., Ltd.
- ULVAC (Shanghai) Trading Co., Ltd.
- ULVAC Materials (Shanghai) Co., Ltd.
- ULVAC Optoelectronics The Film Technology (Shanghai) Co., Ltd.
- ULVAC CRYOGNEICS (NINGBO) INCORPORATED
- ULVAC NONFEROUS METALS (NINGBO) CO., LTD.
- ULVAC Research Center SHIZHOU Co., Ltd.
- Hong Kong ULVAC Co., Ltd.
- ULVAC VACUUM EQUIPMENT (SHANGHAI) CO., LTD.
- ULVAC Coating Technology (Hefei) Co., Ltd.

Taiwan
- ULVAC TAIWAN INC.
- ULTRA CLEAN PRECISION TECHNOLOGIES CORP.
- ULVAC AUTOMATION TAIWAN Inc.
- ULVAC SOFTWARE CREATIVE TECHNOLOGY, CO., LTD.
- ULVAC Materials Taiwan, Inc.

South Korea
- ULVAC KOREA, Ltd.
- ULVAC Korea Precision, Ltd.
- Pure Surface Technology, Ltd.
- ULVAC CRYOGNEICS KOREA INCORPORATED
- ULVAC Materials Korea, Ltd.
- UF TECH, Ltd.

Southeast Asia
- ULVAC SINGAPORE PTE LTD
- ULVAC MALAYSIA SDN BHD
- ULVAC (THAILAND) LTD.

India
- ULVAC, Inc. India Branch

Israel
- ULVAC, LTD.

Japan
- NISSIN SEIKO CO., LTD.
- SHINKO CERAMICS CO., LTD.
- FINE SURFACE TECHNOLOGY CO., LTD.
- REI Co., Ltd.
- SHOWA SHINKU CO., LTD.
- TIGOLD CORPORATION
- ULVAC COATING CORPORATION
- ULVAC KYUSHU CORPORATION
- ULVAC KYOKU, Inc.
- ULVAC EQUIPMENT SALES, Inc.
- ULVAC PHIL, Inc.
- UF TECH, Ltd.

Stock Information
As of June 30, 2018
Total number of shares authorized: 100,000,000
Total number of shares issued: 49,355,938
Total number of shareholders: 15,859

Number of Shareholders
Total 15,859 shareholders

Number of Shares Held
Total 49,355,938 shares

Major Shareholders

Foreign Investors
- Nippon Life Insurance Company
- Japan Trustee Services Bank, Ltd. (Trust account)
- The Master Trust Bank of Japan, Ltd. (Trust account)
- Mitsubishi Bank, Ltd.
- Sumitomo Mitsui Banking Corporation
- TAIYO HANEI FUND, L.P.
- TAIYO HANEI FUND, L.P.
- State Street Bank and Trust Company
- Sumitomo Mitsui Banking Corporation
- Mizuho Bank, Ltd.
- The Master Trust Bank of Japan, Ltd.
- Japan Trustee Services Bank, Ltd. (Trust account)

Domestic Companies
- UF TECH, Ltd.
- ULVAC Materials Korea, Ltd.
- Pure Surface Technology, Ltd.
- Ulvac Korea Precision, Ltd.
- ULVAC KOREA, Ltd.

Foreign Companies
- Foreign Investors
- Financial Institutions
- Domestic Companies
- Securities Companies
- Individuals and Other

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