

ULTIMATE IN
VACUUM



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

Sustainability Policy

ULVAC strives to create economic, social, and environmental value by comprehensively utilizing its vacuum and peripheral technologies.



Vacuum Technology, ULVAC's Core Competence

Stated simply, a vacuum is a space where the pressure is lower than the atmospheric pressure. A vacuum has interesting properties: for example, materials' lower boiling points in a vacuum mean they are more likely to evaporate and gas molecules can travel in a straight line in a space. ULVAC has developed various application technologies that exploit the properties of a vacuum in its quest to realize the remarkable potential inherent in vacuum technology.

For example, using vacuum technology, it is possible to create ultrathin films with micron- to nanometer-order thickness. Since such thin films cannot be produced by physically stretching materials, advanced vacuum deposition technology is required for depositing layers of atoms or molecules of materials in a vacuum.

Led by IoT, 5G, and AI, a tremendous wave of technological innovation has brought about the advent of the smart society. Vacuum deposition is destined to fulfill a vital role in the fundamental technologies underpinning the smart society.

ULVAC's Business Segments

Vacuum Equipment Business

Semiconductor and electronic device production equipment

- Semiconductor production equipment
- LED production equipment
- Electronic device production equipment

FPD and PV production equipment

- Liquid crystal display (LCD) production equipment
- OLED production equipment
- Roll coaters
- Solar cell 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 ink

Others

- Surface analyzers
- Controllers
- Mask blanks

Major Vacuum Equipment
Sputtering equipment, vacuum evaporation equipment, CVD equipment, etching equipment, ashing equipment, ion implantation equipment, annealing equipment, etc.

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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.

■ **Published:**
November 2020 (Previous issue published in November 2019)

■ **Guidelines Referenced:**
ISO26000: 2010 (Guidance on social responsibility) First Edition
The International Integrated Reporting Framework, the International Integrated Reporting Council (IIRC)

Report's Scope and Period

Scope: ULVAC Group

In principle, this report covers the ULVAC Group; any portions that cover only ULVAC, Inc. are indicated as such.

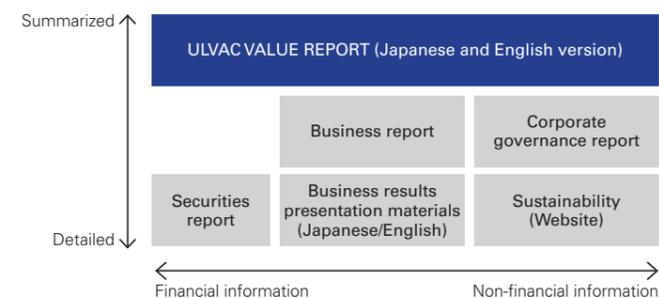
Period: Year ended June 30, 2020
(July 1, 2019 to June 30, 2020, FY 2019)

Some portions of the report include activities and initiatives from July 2020 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 closing 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.

ULVAC's History

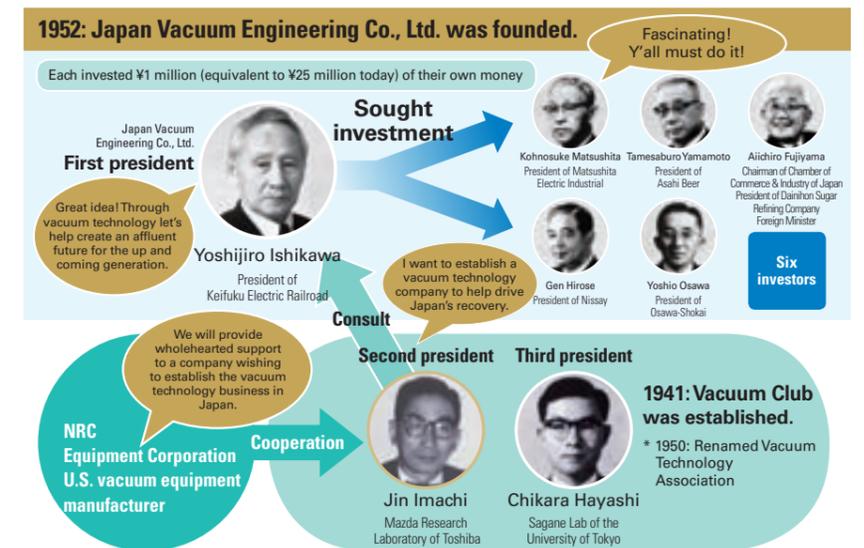
When ULVAC was founded back in 1952, vacuum technology had not yet entered widespread use in Japan. As a trailblazer, we championed vacuum technology by introducing new technologies to the market and addressing the needs of customers in diverse industries. ULVAC will continue tackling technological innovation 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," 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, that will underpin next-generation lifestyles.

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 passion of these visionary young people, invested in the establishment of Japan Vacuum Engineering Co., Ltd., the forerunner of present-day ULVAC.



*Names of companies, organizations and titles are those at the time mentioned.

	1952~	1960~	1962~	1973~	1975~
Customers' products	Automobile Reflectors for automobiles	Chemical/ pharmaceutical/food Pharmaceuticals	Metal/steel Special steel	Liquid crystal display LCD calculator display	Semiconductor Computer (Photo: Courtesy of IBM Archives)
Corresponding ULVAC products	 Vacuum evaporation equipment	 High-vacuum distillation equipment for plasticizers	 100 kg-class vacuum induction melting furnace	 Transparent conductive film deposition equipment	 System 731

1983~	1992~	2016~	2018~
Electronic storage media Discs	FPD Flat-panel display	OLED OLED	Advanced semiconductor/ electronic device Advanced semiconductor
 In-line sputtering equipment	 LCD production equipment	 OLED production equipment	 Semiconductor production equipment

History

1952
Japan Vacuum Engineering Co., Ltd. was founded.

1955
Opened the Omori Plant in Tokyo to start manufacturing equipment in Japan.

1959
Opened the Yokohama Plant in Kanagawa Prefecture.

1964
Established the first overseas subsidiary in Hong Kong.

1968
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
Opened the Institute for Super Materials as ULVAC's first research facility.

1975
Opened the North American Office. Established a subsidiary in North America as a base for exports to the U.S.

1977
Established KYUSYU ULVAC CORPORATION (present-day ULVAC KYUSHU CORPORATION) in Kagoshima Prefecture to expand sales activities in the Kyushu area.

1982
Established a subsidiary in Taiwan.

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

1983
Opened the Beijing Office in China.

1987
Established ULVAC TOHOKU, Inc. in Aomori Prefecture to strengthen production of large-scale equipment.

1990
Opened the Fuji Susono Plant in Shizuoka Prefecture, as a plant dedicated to semiconductor production equipment.

1995
Established a vacuum pump production base in China.

Established a subsidiary in South Korea.

2001
Changed the company name to ULVAC, Inc.

2002
Established a subsidiary in Singapore.

2003
Established a base for full-scale production and field support in China.

2004
Listed on the First Section of the Tokyo Stock Exchange.

New buildings of the Head Office/ Plant (Chigasaki, Kanagawa Prefecture) completed.

2005
Established a large-scale production base for large LCD production equipment in South Korea.

Established a subsidiary in Thailand.

Established R&D bases in South Korea and Taiwan.

Established a subsidiary in Malaysia.

2006
Established a production subsidiary for large LCD production equipment in Taiwan.

2007
Established a base in India.

2010
Relocated the Chiba Institute for Super Materials to the Tomisato Industrial Park in Chiba Prefecture to enhance R&D.

2011
Established the South Korea Institute for Super Materials to enhance R&D in South Korea.

2015
Established the Future Technology Research Laboratory in Tsukuba, Ibaraki Prefecture.

2016
Began manufacturing production equipment for large displays in China.

2018
Established the ULVAC-Osaka University Joint Research Laboratory for Future Technology at Osaka University.

1952

1960

1970

1980

1990

2000

2005

2010

2015

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 %)

Vacuum Application Business

¥30.6 billion 17%

Others ¥17.1 billion

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

Materials ¥13.5 billion

ULVAC is a source of electronic materials, such as sputtering targets, for diverse industries. In addition, in the high-performance materials sector, ULVAC is a source of integrated manufacturing and precision processing technologies for titanium, tantalum, zirconium, niobium, etc.

Industrial equipment ¥18.4 billion

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 automobile, pharmaceutical, and food industries.

Components ¥29.1 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 and analysis equipment, to components, such as power generators for various types of deposition equipment and vacuum valves.

Vacuum Equipment Business

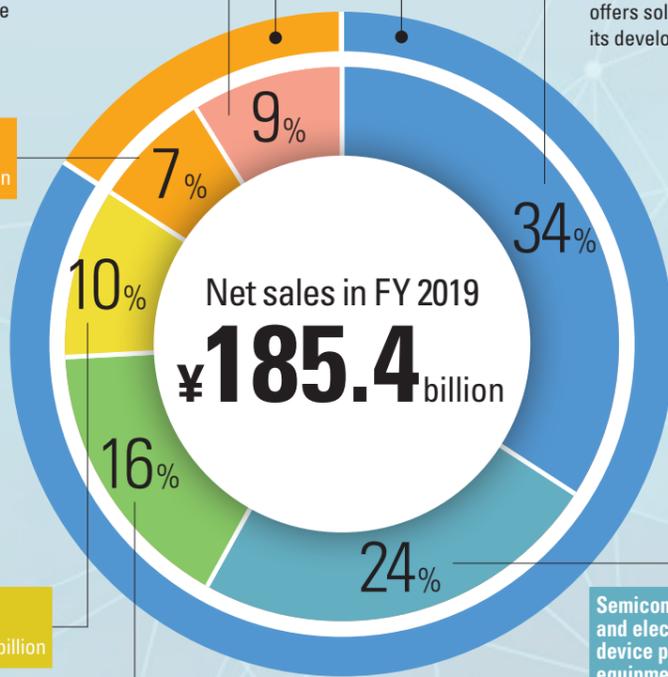
¥154.8 billion 83%

FPD and PV production equipment ¥62.1 billion

ULVAC not only develops a range of FPD and PV production equipment but also offers solutions worldwide that leverage its development of advanced materials.

Semiconductor and electronic device production equipment ¥45.1 billion

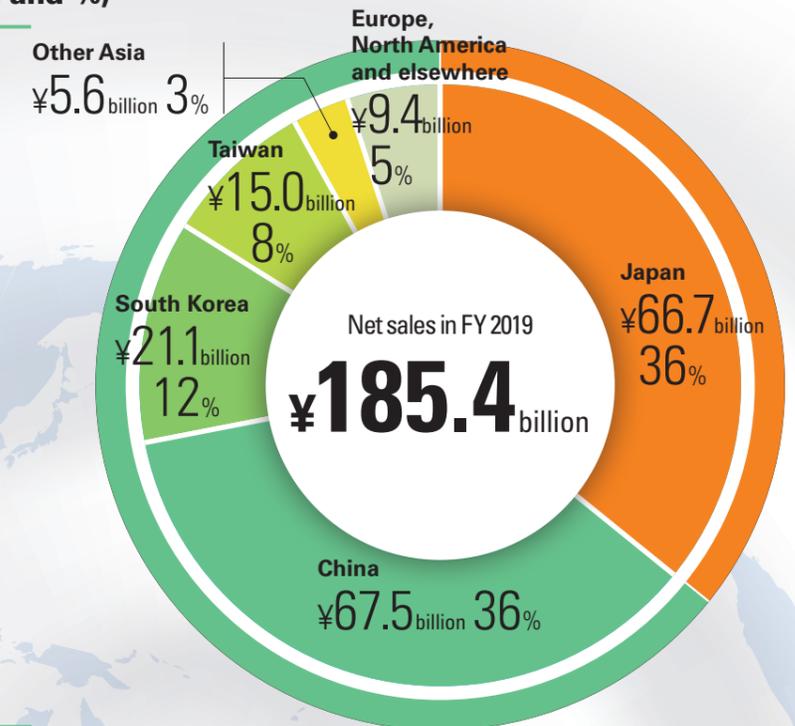
Higher integration and higher performance at lower cost are demanded for next-generation semiconductors and other high-performance devices. Based on its development of super-miniaturization technologies for such semiconductors and other electronic devices, ULVAC delivers a stream of new technologies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



Net sales by region (amount and %)

Ratio of sales overseas

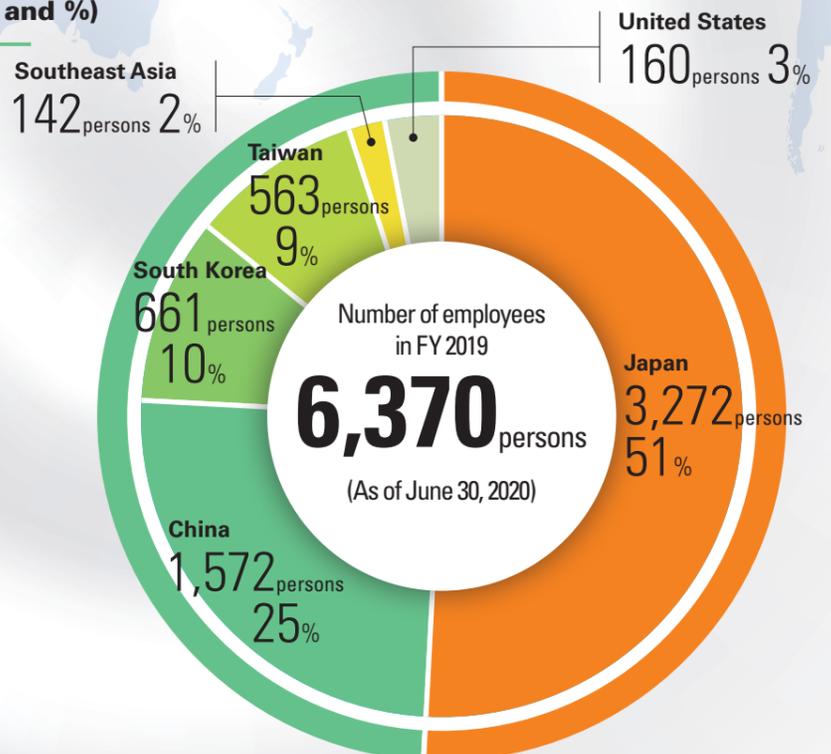
64%



Employees by region (number and %)

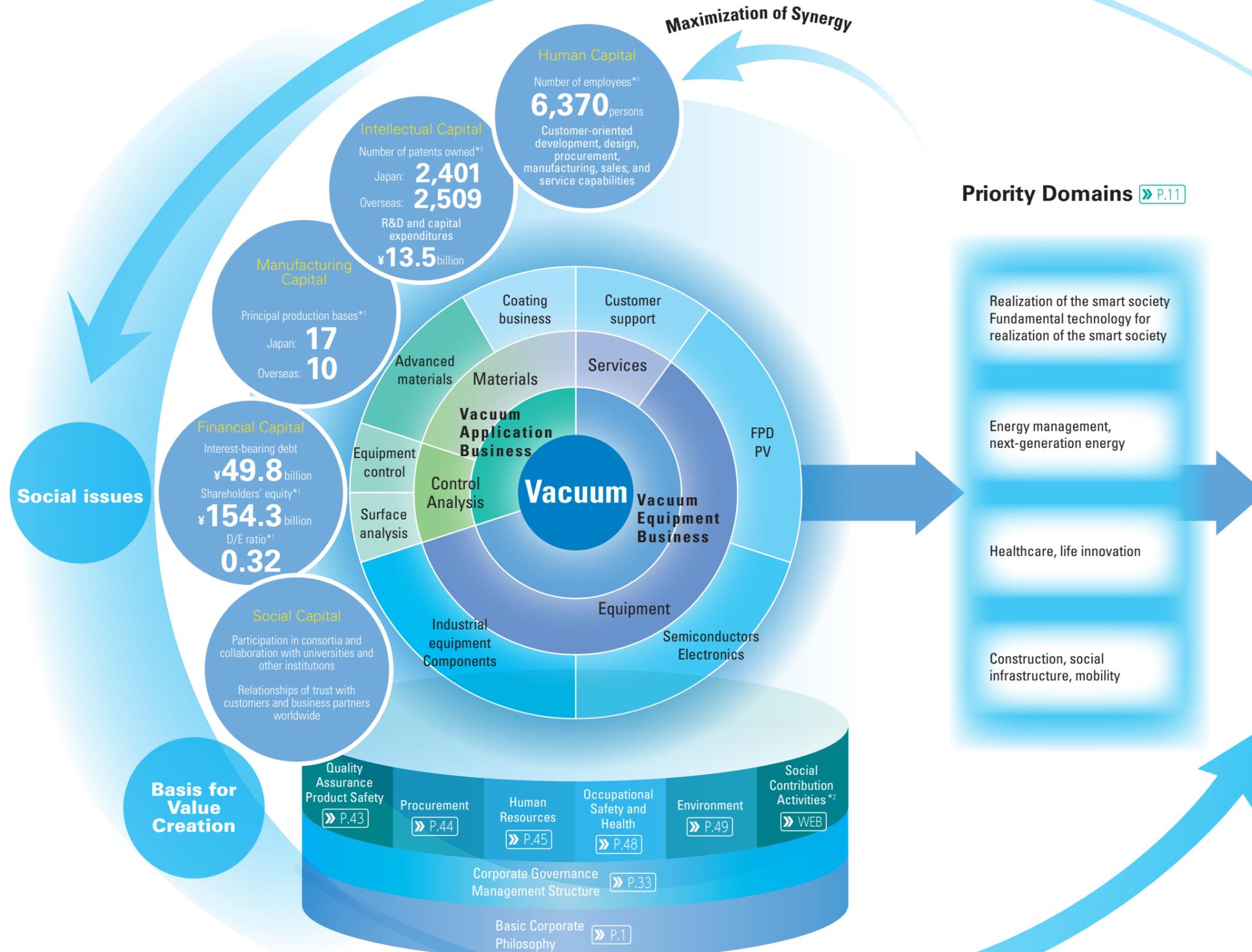
Ratio of employees overseas

49%



ULVAC's Value Creation <Process>

As a comprehensive vacuum product manufacturer, ULVAC will contribute to the realization of a sustainable society.



Value Creation

Value ULVAC Offers to Stakeholders

Customers

Contribution to customers' business activities, technological innovation, and value creation; offering of cutting-edge production technology, enhancement of productivity and quality, and reduction of environmental impacts through equipment and services

Shareholders and investors

Enhancement of corporate value, greater returns

Suppliers

Achievement of growth together with ULVAC based on trust and collaboration, fair and free competitive environment

Local communities

Creation of employment opportunities, industrial development, reduction of environmental impacts

Employees

Workplaces offering job satisfaction

Contribution to realization of a sustainable society*3

Major contributions through products and services



Value Offered by ULVAC's Business >> P.13

Major contributions through processes

Partnerships for the goals

ESG	ULVAC's major initiatives	Relevant SDGs	Reference pages
E (Environment)	<ul style="list-style-type: none"> Environmental management Environmentally friendly products Contribution to reduction of power consumption of various devices 		>> P.13 >> P.49
S (Social)	<ul style="list-style-type: none"> Quality management CSR procurement Occupational safety and health Social contribution activities 		>> P.43 >> P.44 >> P.48 >> WEB *2
G (Governance)	<ul style="list-style-type: none"> Corporate governance Management structure Compliance Risk management Human resources development Diversity & inclusion Health management Creating motivating workplaces 		>> P.33 >> P.37 >> P.40 >> P.42 >> P.45

*3 Indicates relationships with the United Nations' Sustainable Development Goals (SDGs).

*1 As of June 30, 2020 *2 For details >> Website>>Sustainability>Social Contribution Activities

ULVAC's Value Creation <Priority Issues>

We are committed to realizing a society that is not only safe and secure but also affluent and convenient by offering value utilizing vacuum technology, which is indispensable for industrial and scientific development.
We will continue helping to resolve social issues in cooperation with our customers through the provision of products and solutions to them.

Social issues	Market opportunities	ULVAC's business activities		ULVAC's six businesses				Main value offered by the business	Customers and their products	Contribution to resolution of principal social issues*
		Priority domains	Semiconductor production equipment	Electronic device production equipment	FPD and PV production equipment	Components	Industrial equipment			
<ul style="list-style-type: none"> Progress of the smart society, advances in 5G and IoT, and establishment of network infrastructure 	<ul style="list-style-type: none"> 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 	<p>Realization of the smart society Autonomous driving, agriculture, healthcare, virtual currency, etc.</p> <p>Fundamental technology for realization of the smart society IoT, cloud, AI, robots, big data, drones</p>	See >> P.27		See >> P.30		See >> P.32	<p>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</p>	<p>FPD, semiconductor, electronic equipment, and device manufacturers</p> <p>Semiconductors: Memory, logic DRAM, PCRAM, 3D-NAND, CPU, etc.</p> <p>Functional devices: Sensing, communication (5G), display MEMS, SAW/FBAR devices, OLED, etc.</p>	<p>Contribution to realization of an advanced, convenient, safe and secure, smart society</p>
<ul style="list-style-type: none"> Environmental issues, such as global warming and climate change Global energy issues due to dependence on finite resources 	<ul style="list-style-type: none"> Progress of renewable and low-carbon energy systems Improvement in energy conversion efficiency 	<p>Energy management, next-generation energy</p>	See >> P.28		See >> P.29		See >> P.31	<p>Enhancement of performance of solar cells and power devices by vacuum deposition, ion implantation and other technologies, contribution to reduction of power consumption of various devices</p>	<p>Solar cell manufacturers, battery manufacturers, etc.</p> <p>Energy: Heat generation, power storage, conversion Solar cells, all-solid-state batteries, power devices, magnets for wind turbines</p>	<p>Contribution to creation of a sustainable society by power generation, energy storage and energy saving</p>
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Longer preservation of food and pharmaceuticals, volume reduction 	<p>Healthcare, life innovation</p>						<p>Longer life and volume reduction of freeze-dried food, powder vaccines, drugs, etc. by vacuum freeze drying and other technologies</p>	<p>Food manufacturers, pharmaceutical manufacturers, etc.</p> <p>Foodstuffs, pharmaceuticals: Freeze drying Freeze-dried foods, emergency provisions, supplements, powder vaccines, etc.</p>	<p>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</p>
<ul style="list-style-type: none"> Aging of infrastructure in developed countries Development of industrial infrastructure in emerging countries Wider gap between rich and poor 	<ul style="list-style-type: none"> Development of safe, secure and comfortable infrastructure 	<p>Construction, social infrastructure, mobility</p>						<p>Enhancement of performance of industrial materials and response to new materials by applying vacuum heat treatment and other technologies</p>	<p>Chemical and materials manufacturers, steelmakers, transportation equipment manufacturers, etc.</p> <p>Industrial materials: Heat treatment Glass building materials, industrial materials, materials for transportation equipment, etc.</p>	<p>Contribution to creation of a sustainable society that is safe and secure and comfortable</p>

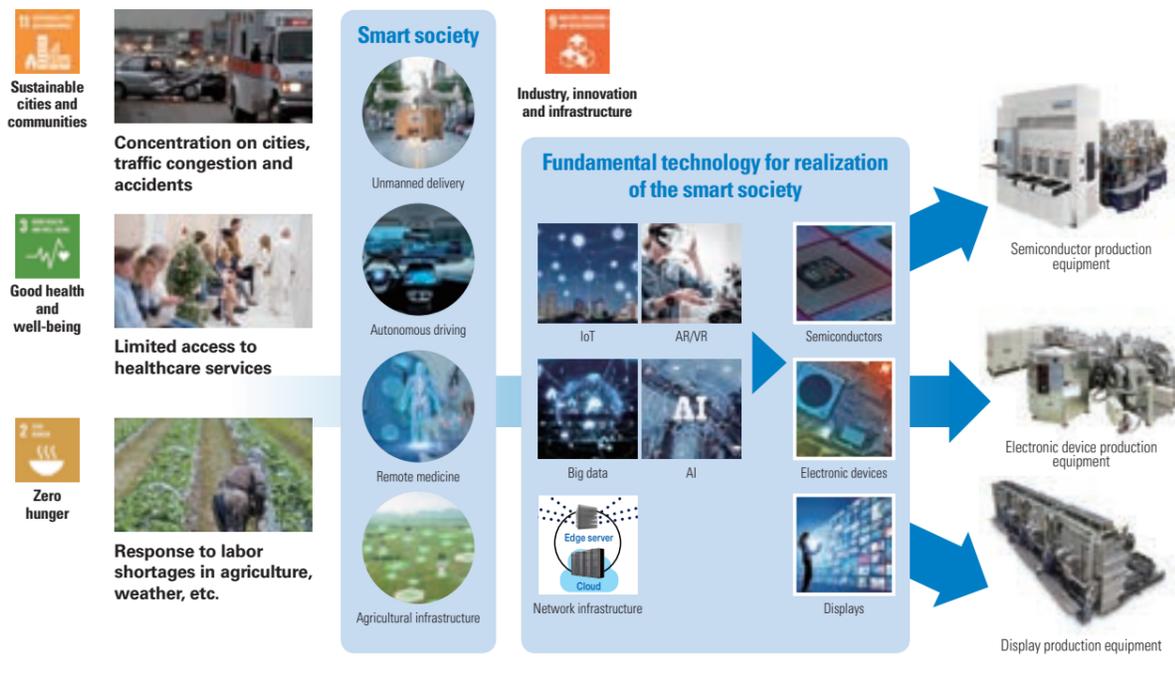
* Indicates relationships with the United Nations' Sustainable Development Goals (SDGs).

ULVAC's Value Creation <Value Offered by ULVAC's Business>

Through implementation of the Basic Corporate Philosophy stating that the ULVAC Group aims to contribute to the development of industries and science by comprehensively utilizing its vacuum and peripheral technologies, ULVAC aims to be an enterprise indispensable for society.

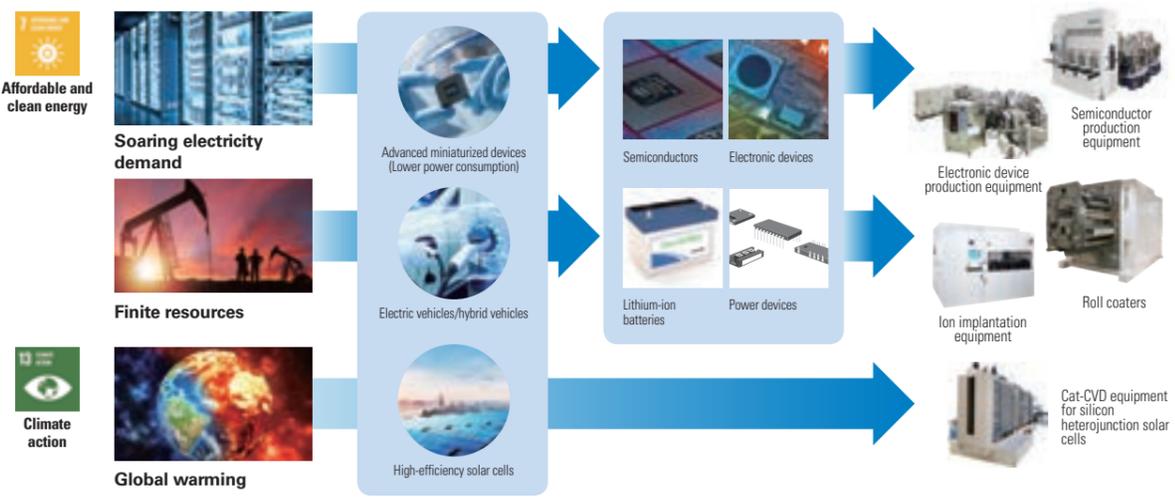
ULVAC supports the smart society

The smart society, whose emergence is accelerated by IoT and 5G, is expected to become social infrastructure that can balance the resolution of the social issues addressed by the SDGs and economic development. ULVAC is helping bring about a smart society, whose attributes will include sustainable cities and communities, good health and well-being, and zero hunger, through technological innovation in semiconductors, electronic devices, displays, and other fields, thus contributing to realization of an advanced, convenient, safe and secure, smart society.



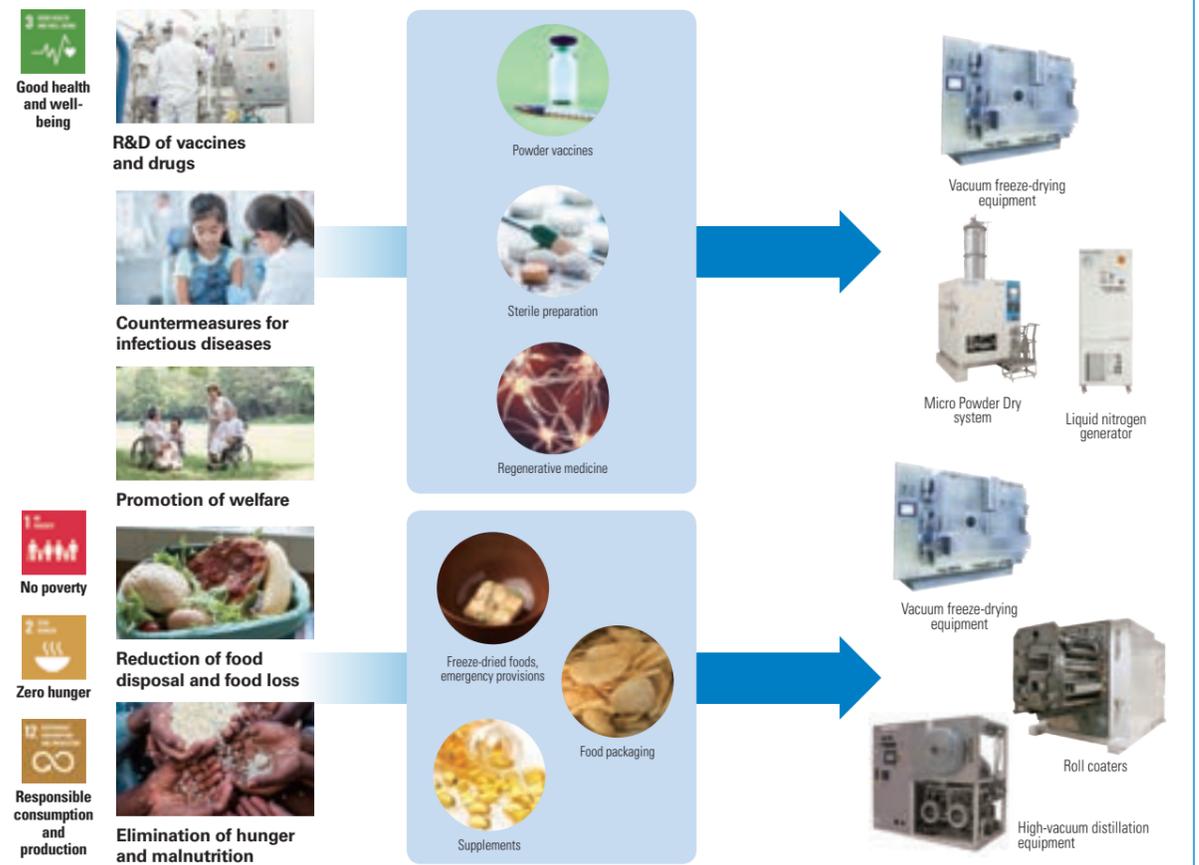
Addressing soaring electricity demand and environmental and energy issues

Environmental issues, such as climate change and global warming, and global energy issues due to dependence on finite resources are intensifying. ULVAC will contribute to the creation of a sustainable society by power generation, energy storage and energy saving through enhancement of the performance of solar cells, batteries, power devices, and other products. ULVAC will offer comprehensive support for digitization by helping address the issue of soaring electricity demand that entails the emergence of the smart society.



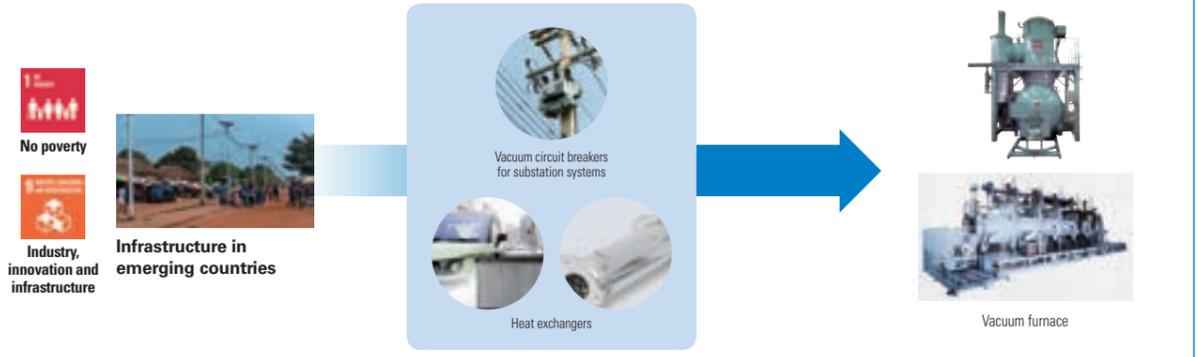
Contributing also to the food and pharmaceutical fields through comprehensive utilization of vacuum technology

While the population explosion and sharp increase in demand for food in emerging countries highlight the need to eliminate hunger and malnutrition, in developed countries, the disposal of food and food loss are increasing. There are also ever-greater needs for healthcare, including countermeasures for infectious diseases, greater access to healthcare, promotion of welfare, and development of vaccines and drugs. ULVAC contributes to human health, the future of medicine, elimination of hunger and malnutrition, and realization of a sustainable society with minimal food loss by enabling longer preservation of food and pharmaceuticals and safe transportation through longer life and volume reduction of food, powder vaccines, drugs, etc. using vacuum technology.



Contributing to development of infrastructure in emerging countries

ULVAC has been contributing to diverse industries through vacuum heat treatment technology ever since Japan's postwar economic boom. ULVAC will also contribute to development of safe, secure and comfortable infrastructure in emerging countries by enhancing the performance of industrial materials.



ULVAC's Value Creation <Research & Development and Global Expansion>

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. Building on our strengths in vacuum technology, 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.

To continue to provide innovative technologies and products in the everchanging market, our R&D projects undergo selection and focus in which a clear distinction is made between "development of innovative technology for principal products of the mainstay business" and "development of fundamental technologies in preparation for the future" based on analysis of customer needs and market trends. Moreover, our development structure leverages business partnerships with various companies and research institutions.

We are also striving to equip ourselves with the advanced technologies necessary to respond swiftly to the progress of 5G and IoT in line with the establishment of global network infrastructure and the smart society while flexibly addressing social issues, including environmental issues such as global warming and climate change, thus establishing a foundation for long-term sustainable growth.

Principal themes

- Logic
- NAND/DRAM
- Next-generation non-volatile memory
- Next-generation displays
- Next-generation batteries
- Communication devices
- Power devices
- Electronic devices, MEMS
- Electronic packaging
- Optical devices

TOPICS Relevant SDGs

Initiatives of the ULVAC-Osaka University Joint Research Laboratory for Future Technology

On November 1, 2018, ULVAC, Inc. and the Graduate School of Engineering at Osaka University established the ULVAC-Osaka University Joint Research Laboratory for Future Technology (hereafter referred to as the "Joint Research Lab") in the Central Terrace Building of the University's Suita Campus. Through Osaka University's industry-academia collaboration framework, the Joint Research Lab is working to achieve practical applications of the seeds of basic research in the engineering field, contribute to academia and industry based on medicine-engineering collaboration in the medical field, and develop highly creative human resources by promoting industry-academia exchanges. ULVAC positions the Joint Research Lab as a center of excellence for basic research and aims to create new value, including creation of quantum dot phosphors employing ULVAC's proprietary technologies, which will lead to next-generation displays including full-color illumination, as well as technology for their mass-production, and the establishment of fundamental technologies in medicine and next-generation ceramics as part of development of application for the ultrafast freeze-drying technology.

Research themes

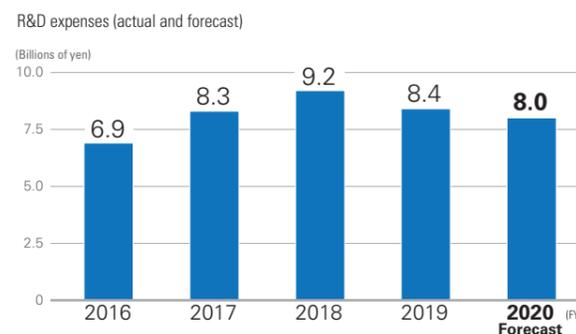
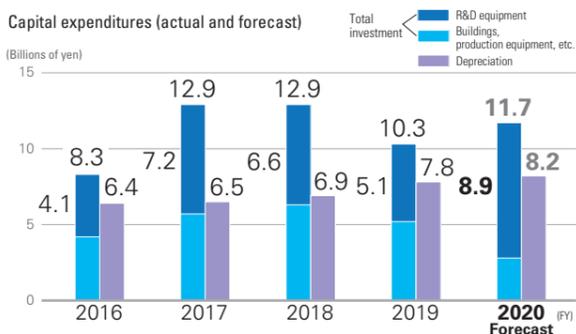
- 1) Development of next-generation displays (quantum dot, LED)
- 2) Creation of next-generation devices using photon spin
- 3) Establishment of a cell preservation technique using ultrafast freeze-drying technology, etc.



Central Terrace Building at the Suita Campus of Osaka University

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

¥50.0 billion in R&D investments (capital expenditures for R&D and R&D expenses) is planned centering on the growing semiconductor and electronic device fields for the three years covered by the new mid-term management plan.



Global Network

Networks offering solutions to support industrial development worldwide

ULVAC has established optimal networks covering development, sales, manufacturing, and services not only for Japan but also for the United States, Europe and Asia.

To spur development by capitalizing on the global development system, ULVAC is promoting joint development with leading companies and research institutions around the world.

Head Office/Plant | Kagoshima Plant | Fuji Susono Plant | Hachinohe Plant

China Plant | South Korea Plant | Taiwan Plant

In regard to manufacturing, ULVAC has expanded a production system centering on Japan, China, South Korea, and Taiwan. Going forward, we will emphasize improvement of production efficiency by promoting optimal production. Whereas each base has established its own local supply chain, the ULVAC Group will strive to optimize procurement by developing a global supply chain.

For details [▶ P.26](#) New Mid-term Management Plan "Enhancing Manufacturing Capabilities"

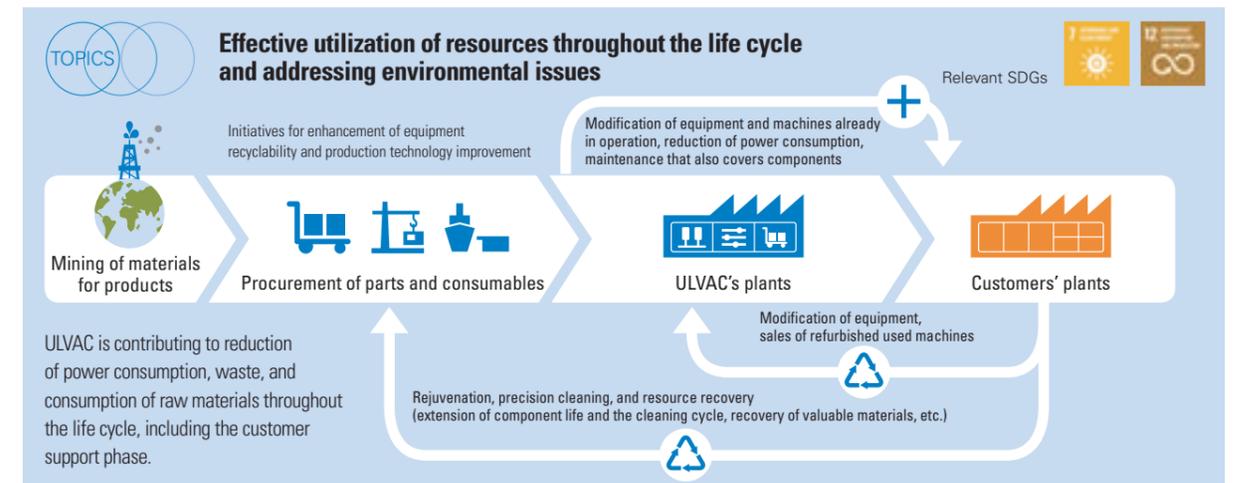
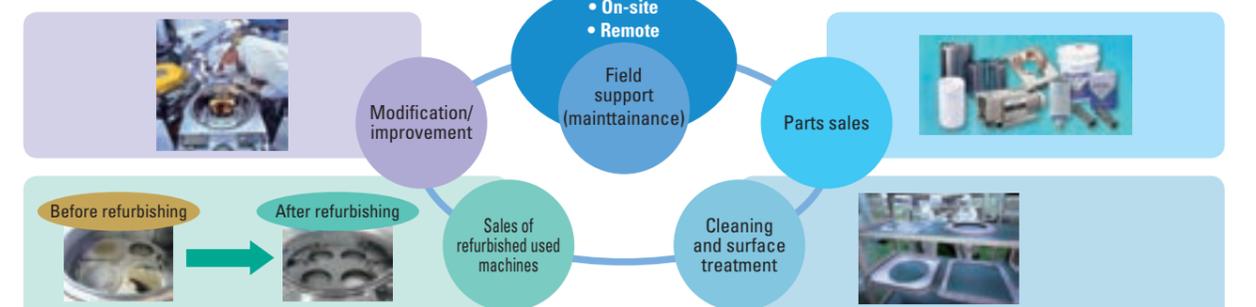
For details [▶ Website>>Support>Sales Offices](#)

For details [▶ Website>>Support>Service Center](#)

Customer Support

ULVAC's customer support solutions pool the Group's knowledge

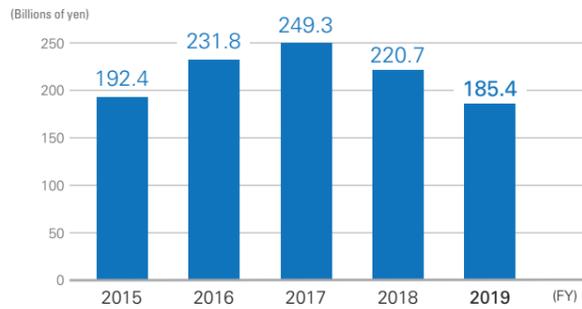
Our customer support network (66 bases in 13 countries) in Japan and around the world underpins our customers' production operations in a manner that meets their needs throughout the life cycle. We offer comprehensive maintenance service covering components and make proposals for improvement and refurbishment 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. We will also expand remote customer support packages utilizing IoT equipment for the future.



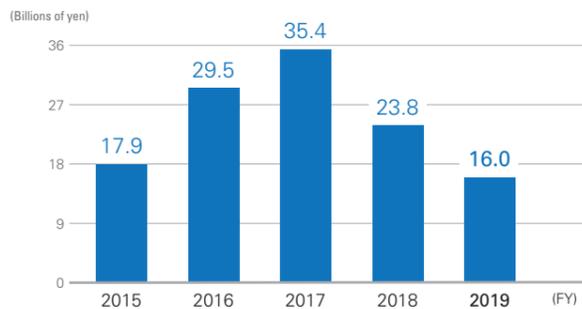
Consolidated Financial and Non-financial Highlights

Consolidated Financial Highlights

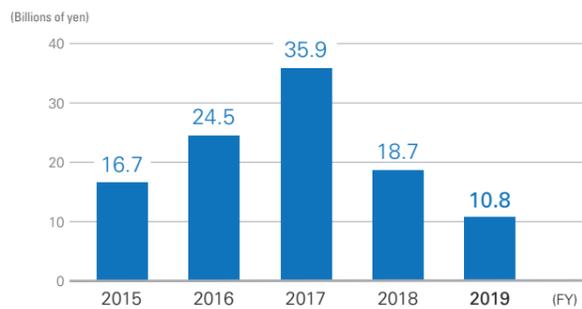
Net sales



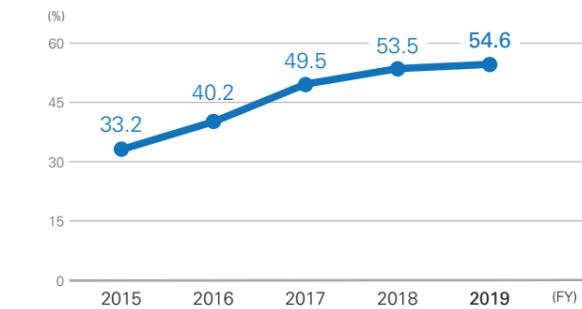
Operating profit



Net income



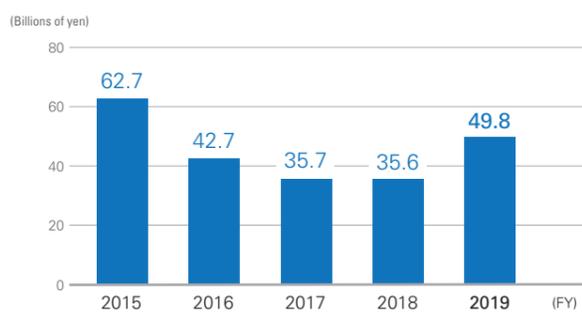
Equity ratio



ROE (Return on equity)



Interest-bearing debt



Non-financial Highlights

Rate of lost-work-time injuries



*Source for average data for all industries and manufacturing industry: "Survey on Industrial Accidents 2019" by the Ministry of Health, Labour and Welfare of Japan.

ULVAC has been promoting various safety initiatives, including risk assessment, through the operation of the Occupational Safety and Health Management System (OSHMS), resulting in safe workplaces. With "safety first" as the Group's principle, we will redouble our efforts to eliminate occupational accidents.

For details >> P.48

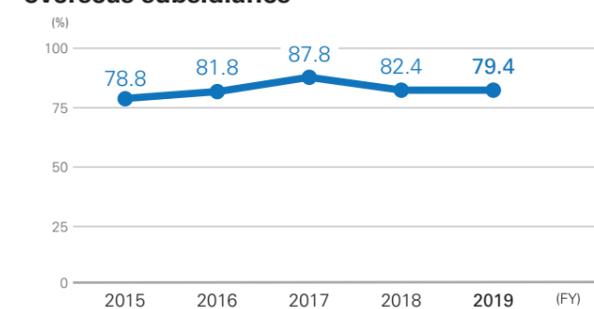
Voluntary retirement rate



We recognize that people are the source of sustainable value creation and our most important asset. Retention of talented human resources is a prerequisite for continuous technological innovation in a rapidly changing industry. We will continue efforts to retain human resources by pursuing various initiatives.

For details >> P.45

Localization ratio of presidents of overseas subsidiaries



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 next-generation executives and are promoting assignment of local employees to important positions overseas.

For details >> P.45

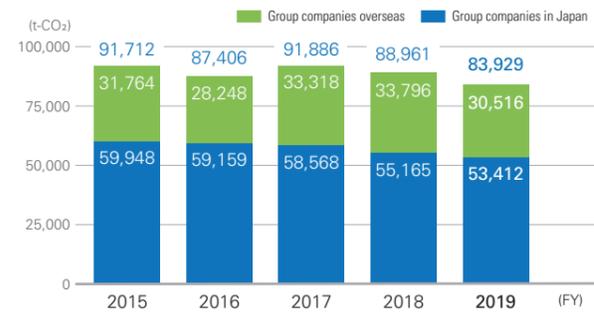
Number of people participating in vacuum demonstration classes



ULVAC holds vacuum demonstration classes and plant tours for local schools and other public institutions and for people in local communities. As part of our collaboration with Chigasaki City on education in recent years, we are vigorously conducting activities designed to encourage as many young people as possible to take an informed interest in science, since the future leaders in the Shonan area will be drawn from their ranks, for example by holding classes for high school students on the world of work and offering junior high school students opportunities to gain experience in the workplace.

For details >> Website>>Sustainability>>Social Contribution Activities

CO₂ emissions



Recognizing that electricity accounts for a large proportion of energy consumption, we are promoting energy saving in production and product development and evaluation while introducing facilities with excellent energy-saving performance.

For details >> P.49

Waste emissions



We are taking steps to reduce landfill disposal of waste and increase the recycling rate while promoting resource-conscious manufacturing, including design to reduce processing losses and minimize waste materials.

For details >> P.49

Commitment of Top Management

Achieve sustainable growth through investment in development for growth, structural change and contribute to technological innovation

Setsuo Iwashita

President and Chief Executive Officer



Realize the smart society and achieve steady growth

Contributing to the smart society by supporting technological innovation

By comprehensively utilizing the vacuum and peripheral technologies cultivated since its foundation, ULVAC has been supporting technological innovation in diverse industries and achieved growth while contributing to customers' business expansion and society's development.

The business environment in which ULVAC operates has been undergoing a phase of unprecedented transformation in recent years. This transformation is taking place in the context of various social issues such as: healthcare systems, water and food, logistics, and transportation stressed by the concentration of population in urban areas, population aging coupled with a declining birthrate; and the growing frequency and severity of natural disasters owing to climate change. Nevertheless, there are high expectations that these issues can be resolved through the realization of a smart society where people's life styles and industries will become increasingly electronics-oriented and digitized through technological innovation.

The realization of the smart society is supported by key devices—such as semiconductor memories and logic devices, MEMS/sensors, power devices, etc.—and fundamental technologies enabling large capacity and low power consumption of semiconductor memories and logic devices as well as miniaturization and enhanced performance of MEMS/sensors and power devices. ULVAC will respond to these needs for key devices and fundamental technologies by leveraging its strengths in vacuum thin film processing technology and fundamental technologies for equipment, thus seizing ever-greater business opportunities in the smart society.

Amid accelerating realization of the smart society

The COVID-19 pandemic has accelerated realization of the smart society while having a big impact on life styles and economic activity. Not only have measures implemented in response to COVID-19 compelled us to adapt to new ways of life and of doing business, but they also have spurred initiatives—the shift to remote working, digital transformation (DX), remote medicine, online provision of education, entertainment, and services—whose progress was previously gradual owing to various constraints.

Realization of the smart society is expected to accelerate with a view to solving various social issues. In these circumstances, in order to contribute to technological innovation, ULVAC needs to strengthen product development capabilities in the semiconductor and electronic device fields, which are growing markets,

and also improve profitability by enhancing productivity so as to achieve sustainable growth.

For the new mid-term management plan covering three years from FY 2020, we set a basic policy that has two principal elements: "investment in development for growth (selection and concentration)" and "profit-oriented management through structural change." I refer to the details below.

Steady progress of initiatives for business growth and value creation

FY 2019 business results and the impact of the COVID-19 pandemic

In FY 2019, the spread of COVID-19 imposed severe constraints on economic activity worldwide, resulting in rapid deterioration of economic conditions in the second half of FY 2019. Despite these circumstances, capital investment of foundries and logic manufacturers in cutting-edge processes remained firm and that of memory manufacturers, which was in an adjustment phase, showed signs of recovery. In the electronic device field, rising demand in line with progress toward the smart society, centering on IoT and AI, led to strong capital investment. Regarding capital investment in the flat panel display (FPD) sector, business opportunities on major investment projects related to liquid crystal display (LCD) for large-screen TVs had come to a cyclical downturn and investment related to organic light-emitting diode (OLED) displays for smartphones entered a temporary adjustment phase.

Let me review ULVAC's operations for FY 2019. For FPD and PV production equipment, orders received for LCD production equipment for large-screen TVs and OLED production equipment for smartphones decreased greatly and net sales of FPD and PV production equipment declined year on year. Orders received for and net sales of semiconductor and electronic device production equipment increased year on year because demand for sputtering equipment for logic devices and production equipment for communication devices and power devices was firm. Orders received for and net sales of components decreased year on year owing to weakening of automotive- and FPD-related investment. Orders received for and net sales of general industrial equipment decreased year on year, reflecting sluggish capital investment in China and Southeast Asia. Orders received for and net sales of materials also decreased year on year, reflecting customers' lower equipment utilization. Owing to travel restrictions and constraints on business activities due to the COVID-19 pandemic, ULVAC's business was affected to some extent as ULVAC operates globally. We established the COVID-19

Commitment of Top Management

Emergency Response Headquarters, which I head as President and CEO of ULVAC, Inc., in order to ensure a timely and appropriate response to COVID-19 and we strove to minimize the impact on business activities by implementing measures to prevent the spread of COVID-19 in accordance with the requirements of various countries.

As a result, consolidated business results for FY 2019 fell short of the initial targets. Orders received decreased 28.4% year on year to ¥156.6 billion, net sales decreased 16.0% to ¥185.4 billion, operating profit decreased 33.0% to ¥16.0 billion, ordinary profit decreased 29.4% to ¥18.1 billion, and net income decreased 42.3% to ¥10.8 billion.

Review of the previous mid-term management plan and achievements

Progress on the previous mid-term management plan (covering the period from FY 2017 to 2019) began strongly, but the results for FY2019 fell short of performance targets, due to factors such as struggling sales of OLED production equipment for smartphones, a cyclical downturn in investment in LCD production equipment for large-screen TVs, reactionary decline in investment in semiconductor memory, and compounded by the impact of COVID-19.

On the other hand, we made steady progress on the key strategies of "promoting business growth" and "enhancing the power of value creation." For semiconductor and electronic devices production equipment, we achieved growth in electronic devices such as communication and power devices, and the entry into the logic field. For FPD and PV production equipment, we collaborated with leading companies to begin development of next-generation large OLEDs. We also launched manufacturing innovations as the first step in our drive to enhance productivity and achieve transformation to a profitable structure.

Promote development directly leading to product competitiveness and improve profitability through manufacturing innovations

New mid-term management plan aims at transformation to a profitable structure

ULVAC formulated and launched the new mid-term management plan "Breakthrough 2022" (covering the period from FY 2020 to 2022). Under this plan, we apprehend the trend of technological innovation for a smart society as a business opportunity, and will achieve sustainable growth under the basic policies: "Investment in development for growth (selection and concentration)" and "Profit-oriented management

through structural change." We will expand investment for the growth in semiconductor and electronic device fields, to strengthen the growing business. Regarding research and development, we will strengthen product development in response to technological innovation in growing markets. We will also promote manufacturing innovations on all processes from engineering and design to production system, aiming to improve profit margins.

By pursuing initiatives to expand the semiconductor production equipment business, we aim to double our share in the logic market and meet customers' expectations. In the memory market, we also aim to expand our share through entry into new processes while exploiting market recovery. China will be the principal market for electronic device production equipment such as equipment for power devices, MEMS/optical devices, and communication devices. Through our policy of strengthening development, sales and support systems in China where a big market is emerging, we intend to gain market share and grow sales.

On the other hand, regarding FPD, we intend to promote a shift from LCD to large-substrate OLED. Although sales are expected to decrease compared with previous years, we aim to achieve transformation to a profitable structure by promoting manufacturing innovations.

* For details of the mid-term management plan "Breakthrough 2022," such as quantitative targets, please refer to P.23-26.

Forecast for the first year of the new mid-term management plan

The business environment at present continues to be pervaded by a sense of uncertainty regarding the future outlook, with the persistence of US-China trade friction and the possibility that the COVID-19 pandemic may continue for a substantial period of time. However, at the same time, we are witnessing increasingly vigorous investment related to semiconductors and electronic devices, in line with the progress of above-mentioned technological innovation for a smart society.

Sales and profit are anticipated to decline substantially in FY2020, due to a much lower order backlog at the beginning of the fiscal year, but we expect the orders received to increase, primarily for semiconductor and electronic devices production equipment, and FPD and PV production equipment. The operating profit margin will improve due to the progress of manufacturing innovations.

For FY 2020, on a consolidated basis, we forecast orders received of ¥180.0 billion (+15.0% year on year), net sales of ¥165.0 billion (-11.0%), operating profit of ¥15.0 billion (-6.0%), ordinary profit of ¥16.0 billion (-11.4%), and net income of ¥10.0 billion (-7.1%).

Capital policy

Regarding the capital policy, we take into account such factors as financial soundness, the capital structure, and distribution of profit to shareholders, while securing capacity for growth investment with a view to the future.

ULVAC recognizes the sharing of profits with the shareholders as one of its most important policies. On the other hand, operating in an industry that undergoes significant changes in capital expenditure trends and technical innovations, ULVAC needs to secure sufficient funds for R&D investments in growth fields and establish a stable financial base, and thus intends to enhance its internal reserves. Therefore, the basic policy for distribution of profits to shareholders takes into account such factors as demand for funds, cash flows, performance, and the payout ratio for each fiscal year.

To create social value while achieving sustainable growth

Contributing to sustainability based on a long-term vision

The foundation of ULVAC's business activities is the Basic Corporate Philosophy stating our aspiration: "to contribute to the development of industries and science by comprehensively utilizing its vacuum and peripheral technologies." ULVAC established the Sustainability Promotion Committee consisting of internal directors and general managers in FY 2019 in order to examine how ULVAC can contribute to sustainability through its operations over the long term, in view of likely developments concerning society and the global environment in the coming years, by rediscovering ULVAC's origin and clarifying the current positioning. The committee formulated the Sustainability Policy: "ULVAC strives to create economic, social, and environmental value by comprehensively utilizing its vacuum and peripheral technologies." This policy encompasses ULVAC's aspirations to reduce environmental impacts and enhance health and happiness while pursuing appropriate profit through contributions to development of industries and science together with its stakeholders.

The committee is currently examining key issues (materiality) to be resolved or ameliorated by ULVAC over the long term. By continuously contributing to society through the process of resolving such key issues, our value creation will be materialized.

ULVAC's approaches contributing to sustainability through business can be classified into two categories. One category encompasses the provision of products and technologies contributing to reduction of



environmental impacts, energy saving, resource saving, and resolution of social issues. The other category concerns contributions to society and the environment in the course of business activities. These approaches include, for example, responsible procurement and initiatives to reduce environmental impacts, such as reduction of CO₂ emissions and waste in production activities.

ULVAC's business is principally B2B, centering on the provision of production equipment and technologies to customers that are manufacturers of semiconductor and electronic devices or FPD. Our contribution to resolution of environmental and social issues is mostly indirect, mainly conducted in partnership with customers. We recognize that key issues that ULVAC needs to address going forward are how to promote our contribution to sustainability from a long-term perspective as an enterprise aiming at global growth and development, how to translate that contribution into corporate value, and how to communicate it to stakeholders.

Commitment to our stakeholders

ULVAC aims to achieve an early recovery of earnings and resume growth by thoroughly implementing the growth strategy based on the new mid-term management plan "Breakthrough 2022."

Viewing this era of transformation as a growth opportunity, we will help create a more affluent sustainable future through our contribution to the development of industries and science. We hope for the understanding of all of our shareholders that the company is taking on new challenges, and look forward to your continued and increased support.

New Mid-term Management Plan: Breakthrough 2022

Under the previous mid-term management plan, ULVAC tackled promoting business growth and enhancing the power of value creation in readiness for change in the market environment.

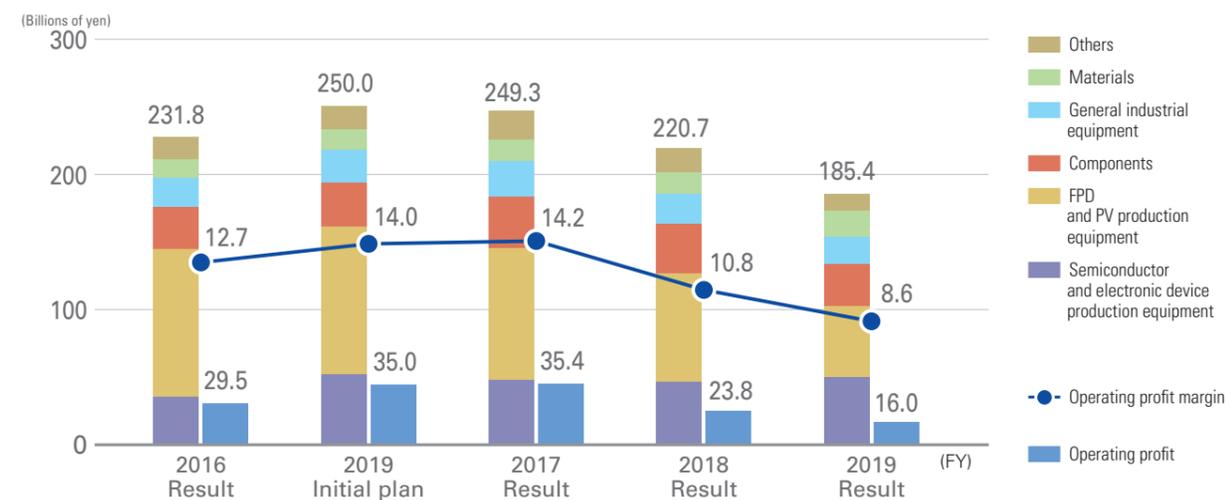
The basic policy of the new mid-term management plan is to promote selection and concentration of investment in development for growth, focused on the semiconductor and electronic equipment business, and pursue profit-oriented management through structural change. With this policy, ULVAC will emphasize strengthening the growing business, strengthening research and development, and enhancing manufacturing capabilities in order to improve profitability.

Review of the previous mid-term management plan

Under the previous mid-term management plan, ULVAC aimed to achieve highly profitable corporate management by comprehensively utilizing vacuum technology, maximizing synergy, and cooperating with global business partners. We also emphasized human resources development for the next leap forward and a corporate culture that relishes challenges. With regard to promoting business growth, in the FPD business, we secured an overwhelming market share for sputtering equipment used in the manufacture of large LCDs for TVs. Leveraging ULVAC's strengths, we also began development of next-generation OLED production equipment. In the semiconductor and electronic equipment business, we entered the logic field, which was something we had long aspired to do, and steadily expanded the equipment business for electronic devices, such as communication and power devices. At the Advanced Electronics Equipment Division, which is in charge of this equipment business for electronic devices, production efficiency has been an issue because a wide variety of equipment is offered to meet diverse customer needs. By promoting manufacturing

innovation, we have achieved productivity improvement. Regarding global expansion, joint development with leading companies and advanced research institutions worldwide has increased. For enhancing the power of value creation, we emphasized enhancing marketing and original technology and product development, which led to achievements such as entry to the logic field and investment in PCRAM. Moreover, we promoted modularization of electronic device production equipment.

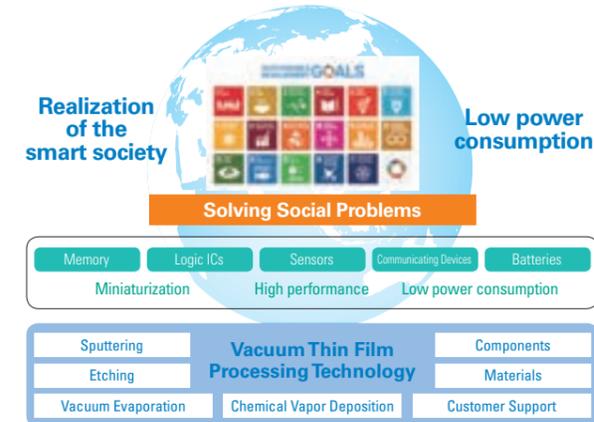
Regarding strengthening of the management base, ULVAC promoted human resources development centering on the next generation of leaders while at the same time we promoted globalization of the management team by appointing three more directors who are not Japanese nationals. In order to revise and improve the management style of Group companies, motivated young managers with a challenging spirit were promoted to top management. We also began strengthening the information system infrastructure. Regarding financial soundness, the equity ratio improved from 40.2% to 54.6%.



In FY 2017, net sales and operating profit (margin) virtually reached the FY 2019 targets. Thus, we upwardly revised the FY 2019 targets to net sales of ¥265.0 billion and operating profit of ¥38.0 billion. However in FY 2018 and FY 2019, net sales and operating profit (margin) fell short of the targets owing to a sharp decline in FPD sales and a drop in investment in semiconductor memories following the previous brisk investment as well as the impact of COVID-19 in FY 2019.

Technological Innovation for the Smart Society Realization and Lower Power Consumption while Pursuing Growth by Seizing Opportunities Created by Change

Technological innovation to underpin the emerging smart society through miniaturization and achieving high performance and low power consumption



Contributing to miniaturization, high performance, and low power consumption required for realization of the smart society

Progress toward realization of the smart society is accelerating with the emergence of IoT, AR/VR, autonomous driving, biometrics, remote medicine, and smart agriculture.

In particular, the COVID-19 pandemic has spurred digital transformation, including remote work, online education, and remote medicine, while the shift to a data-driven society is also accelerating.

Realization of the smart society is highly dependent on numerous semiconductor and electronic devices. For various sensors as well as for the communication devices receiving and sending data obtained from them, and also for the batteries that drive them, higher performance, multifunctionality, miniaturization, and lower cost are required. Furthermore, to handle the exponentially increasing amounts of data, larger storage capacity and faster processing are required for servers and edge computing, and further miniaturization of logic CPUs and memory is underway to respond to these needs.

Meanwhile, the progress of the smart society will result in a sharp increase in power consumption due to the use of numerous semiconductor and electronic devices. Thus, it is critically important to reduce the power consumption of various devices as well as of CPUs and memory.

ULVAC's advantages

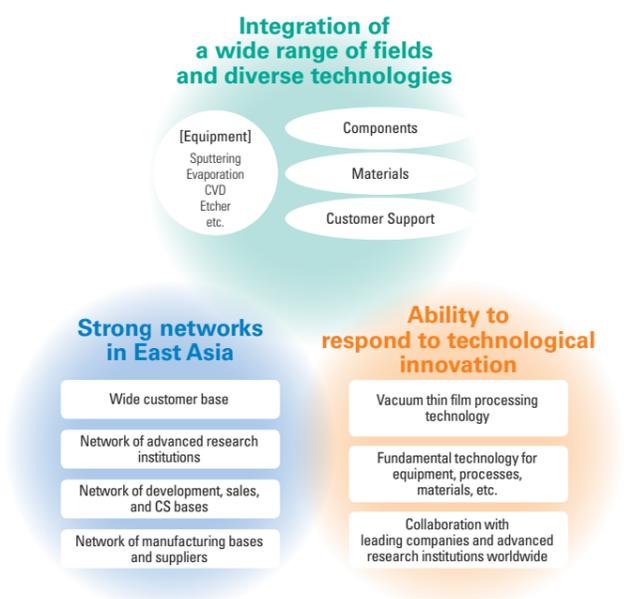
ULVAC's advantages are largely attributable to its involvement across a wide range of fields and diverse technologies, including vacuum deposition equipment such as sputtering and evaporation, components such as vacuum pumps, and materials used as film deposition targets, as well as its strength in customer support.

In East Asia, centering on Japan, China, South Korea, and Taiwan, where the world's manufacturers of semiconductors, electronic devices, and panels are concentrated, ULVAC has a broad customer base; a network of relationships with advanced research institutions; a network of development, sales, and customer support bases; and a network of production bases and suppliers.

In addition, vacuum thin film processing technology; underlying fundamental technologies for equipment, processes, materials, etc.; and collaboration with the world's leading companies and advanced research institutions enable ULVAC to respond to technological innovation.

By leveraging these advantages, ULVAC intends to lead technological innovation geared to realization of the smart society and low power consumption so as to contribute to society while growing the business.

Leveraging ULVAC's Advantages for Growth



New Mid-term Management Plan: Breakthrough 2022

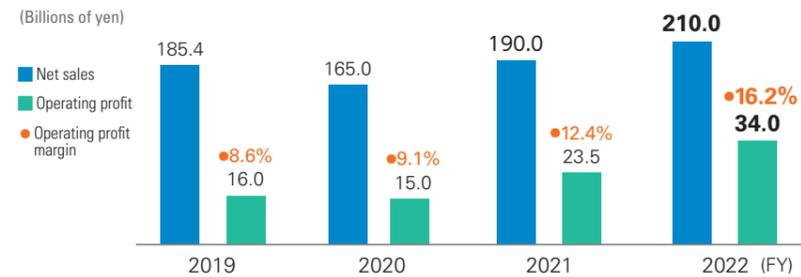
The basic policy of the new mid-term management plan is twofold: "investment in development for growth (selection and concentration)" and "profit-oriented management through structural change." To achieve the goals of the plan, ULVAC will strengthen research and development capabilities so as to develop products attuned to technological innovation in growing markets, such as those for semiconductors and electronic devices. We will promote horizontal deployment of manufacturing innovations that achieved good results in the advanced electronics equipment business across other businesses and Group companies, in order to enhance productivity throughout the processes from engineering and design to production and thus improve profitability. We will also implement initiatives to enhance the efficiency of Group management.

Basic Policy

- Investment in development for growth (selection and concentration)
- Profit-oriented management through structural change

Quantitative targets

- Targets for FY 2022**
- Net sales ¥210.0 billion
 - Gross profit margin 35% or above
 - Operating profit margin 16% or above
 - ROE 13% or above
 - Operating CF ¥29.0 billion



1 Strengthening the Growing Business

- Expand investment for development in the semiconductor and electronic device fields
- Enhance components, materials, and customer support

In the semiconductor field, we have entered the logic market. Moreover, we intend to apply the logic miniaturization process to other processes and to secure its adoption by other companies. We also intend to enter the segment for equipment used in a new memory process. In the electronic device field, our aim is to expand orders received for modularization equipment by responding to an increase in investment in power semiconductors, communication devices, sensors, etc. and to grow in the China market. With regard to FPD, we will develop mass-production technology for large-substrate OLEDs. We will also promote further strengthening of components, materials, and customer support, which constitute our stable base.

Semiconductor	<ul style="list-style-type: none"> New entry into the logic miniaturization process → Growth through application to other processes and adoption by other companies Resumption of memory investment and entry into new processes
Electronic Device	<ul style="list-style-type: none"> Expansion of proposed equipment through modularization Strengthening development, sales and support systems in China
FPD	<ul style="list-style-type: none"> Development for mass production of large-substrate OLEDs Transformation to a profitable structure
Components Materials Customer Support	<ul style="list-style-type: none"> Sales expansion in the semiconductor and electronics fields Growth in parallel with equipment sales in China

2 Strengthening Research and Development

- Strengthen product development in response to technological innovation in growing markets

We will strengthen product development in response to technological innovation in the semiconductor and electronic device fields, which will be pillars for growth from now on. Selection and concentration in growth fields will be promoted through integration of laboratories and sharing of technology and product roadmaps with customers. We will also strengthen the global development system, including promotion of joint development of cutting-edge technologies with leading companies worldwide.

Strengthen product development in response to technological innovation in growing markets

- Shift investment into the development of semiconductors and electronics
- Strengthen global development system
- Shift in emphasis from process development to product development
- Integration of laboratories
- Share technology and product roadmaps with customers

Semiconductor and Electronic Device: FPD

5.5 : 4.5 → 6 : 4 → 7 : 3

Logic (MHM), PCRAM
High-density mounting ashing
Etching for communication devices Optical film sputter
G10.5 sputter for large TVs
Magnetic levitation transport for large substrates

Selection and concentration
Shifting focus to product development

Year	R&D investment (Billions of yen)
2011-2013	25.4
2014-2016	30.9
2017-2019	44.6
2020-2022 (FY)	50.0

3 Enhancing Manufacturing Capabilities

- Improve profitability by enhancing productivity throughout the processes from engineering and design to production

Enhancing Manufacturing Capabilities

- Technical Design Reform**: Improving the completeness of technical drawings, Enhancing design value engineering
- Procurement Reform**: Integration of purchasing systems, Global supply chain redevelopment
- Business process standardization**: Improvement of productivity and business management
- Strengthening the Information System Infrastructure**
- Production Process Reform**: Specialization of production sites, Improving manufacturing productivity

- Man-hours 50% reduction
- Manufacturing lead time 50% reduction
- Procurement cost reduction

Gross Profit Margin

2019: 27.3% → 2022 (FY): 35% or above

We will promote manufacturing innovations throughout the processes from engineering and design to production and procurement in order to improve profitability through enhancement of productivity, including a 50% reduction in man-hours and manufacturing lead time, as well as reduction of procurement costs. Regarding technical design reform, we will work to enhance the degree of completeness of technical drawings and strengthen value engineering at the design phase by clarifying the equipment concept and the design philosophy in advance and grasping the specifications required by customers early so as to achieve design that can shorten the production process and reduce the unit cost of parts and the manufacturing burden. As for production process reform, we will pursue specialization of individual production bases by eliminating duplication of production so as to enhance productivity. With respect to procurement reform, we aim to reduce procurement costs by developing a global supply chain through integration of production bases' purchasing organizations. We will also promote strengthening of the information system infrastructure to realize business process standardization and sharing of production information in real time so as to enhance productivity.

4 Enhancing Group Management Efficiency

- Promote business unit-based management
- Strengthen management of Group companies that have their own products

Regarding Group management, we will promote business unit-based management to enhance management efficiency. We will also strive to spur growth of Group companies that have their own products.

5 Strengthening the Management Base

Business and organizational transformation → Achievement of growth

Goals	Measures, etc.
Human resources development and activation <ul style="list-style-type: none"> Cultivating human resources with initiative who are constantly challenging Creating a framework and environment in which diverse human resources can play active roles 	<ul style="list-style-type: none"> Nurturing of the next-generation leaders Visualization of human capital Diversity
Strengthening of the information system infrastructure <ul style="list-style-type: none"> Sharing of Group management information and faster management decision-making Improvement of productivity and business management 	[Total investment of ¥3.5 billion over 5 years] <ul style="list-style-type: none"> Business process standardization Global and optimal procurement (Efficient ordering)
Strengthening of the financial base <ul style="list-style-type: none"> Enhancement of development investment capabilities Improvement of capital efficiency Further strengthening of the financial structure 	<ul style="list-style-type: none"> Further improvement of capital efficiency by strengthening cash flow management Aim to achieve ROE of 13% or higher and operating cash flow of ¥29.0 billion while maintaining financial stability (Estimated equity ratio: 60%)

In order to ensure R&D and manufacturing capabilities are strengthened, it is necessary to change conventional ways of doing work. As well as developing human resources with initiative who are predisposed to change, we will endeavor to create a framework and environment in which diverse human resources can play active roles. Moreover, we will promote strengthening of the information system infrastructure, which will support sharing of Group management information and faster management decision-making and enhancement of productivity. Regarding the financial base, we will strengthen cash flow management in order to enhance our ability to invest in development in growing fields and to further improve capital efficiency.

Vacuum Equipment Business ①

Semiconductor Production Equipment



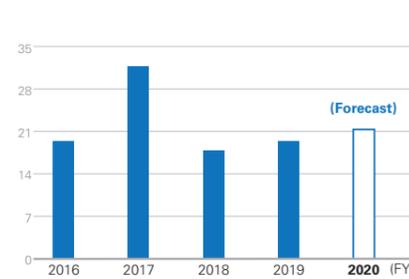
We aim to achieve growth of the semiconductor production equipment business outperforming the market growth rate by continuing to capitalize on investment trends and advanced technological trends in the semiconductor market.

To accomplish this, we will endeavor to seize growth opportunities based on our business strategy emphasizing responsiveness to the needs and trust of customers.

Tomoyasu Kondo

Senior Executive Officer,
General Manager of Semiconductor Equipment Division

Orders received (Billions of yen)



Vacuum Equipment Business ②

Electronic Device Production Equipment



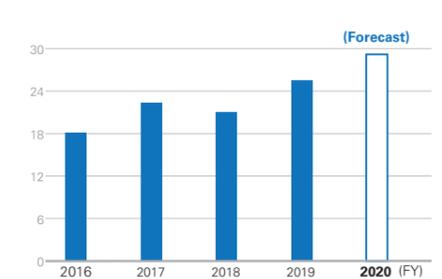
Electronic devices are indispensable in contemporary society. Emergence of the smart society and the spread of remote work are providing a tailwind for the electronic device market. Sensor and communication technologies will continue to develop and evolve. Moreover, the trends toward energy saving and electrification are spurring growth of the power device market.

We aim to further expand business in the electronic device market.

Tetsuya Shimada

Managing Executive Officer,
General Manager of Advanced Electronics Equipment Division

Orders received (Billions of yen)



Review of FY 2019

In the wake of memory manufacturers' vigorous investment that peaked in 2018, the business environment was challenging in 2019 and in the first half of 2020 because of a marked tendency to postpone investment, albeit briefly, due to oversupply and price declines. Investment is expected to resume moderately from the second half of 2020 onward and we expect the recovery trend to give us a tailwind.

Meanwhile, in the logic/foundry market, a growing number of major customers are adopting our sputtering equipment for the process that requires extreme ultraviolet lithography (EUV) and joint development for new processes is becoming vigorous. Thus, further growth in this market is expected.

Regarding the sputtering process of PCRAM nonvolatile memory, which has good prospects for future market growth, our equipment continues to be adopted not only by our existing customers but also for development and pilot lines by all other customers who are planning mass production, although investment in mass production has temporarily halted.

To build on these accomplishments and progress, we are promoting initiatives to further reinforce the foundation for growth by strengthening sales & marketing, production, and customer support systems.

Medium- to long-term outlook of the market environment

In line with continuing to rise data traffic in the emerging smart society, semiconductor devices continue to evolve and grow through the expansion of equipment, servers, and edge computing for big data processing. Despite fluctuations from year to year, investment in the memory and logic device segments is on an upward trajectory over the medium to long term.

As we have entered the logic market in addition to the memory market, we now have two pillars sustaining ULVAC's growth. Based on a business growth strategy unique to ULVAC, we will pursue business development and product development different from other major competing equipment manufacturers to fulfill needs associated with leading-edge devices.

Recognized Business Opportunities

- Investment in mass production of leading-edge 5-3nm logic devices
- New processes and change in materials for leading-edge DRAM and 3D-NAND products
- Expansion of wafer level package deposition process
- Mass production of new memory such as PCRAM

Conceivable Risks

- Intensifying of competition
- Change in the semiconductor business structure due to prolonged U.S.-China trade friction
- Delay in new product development and application to mass production
- Delay in expansion of the new memory market such as PCRAM

Measures for Reducing Risks and Maximizing Opportunities

- Develop products by embracing customer requirements through steady marketing and develop differentiation technology
- Promote joint development with customers leading the market
- Strengthen support for development and mass production of leading-edge devices
- Strengthen support for development and mass-production launch by new customers
- Provide thorough support to customers that manufacture new types of memory such as PCRAM and maintain 100% market share

Review of FY 2019

We got off to a strong start with order-receiving in the first half of FY 2019, benefitting from the momentum of the electronic device market. However, in the second half, business opportunities stalled and installation of equipment was suspended owing to travel restrictions because of the COVID-19 pandemic. As a result, both orders received and sales fell short of the annual targets. In these circumstances, we continued our efforts to strengthen manufacturing capabilities and were able to promote transformation to a profitable structure. By the end of FY 2019, there were indications of a recovery in business opportunities. In FY 2020, despite the continuing impact of COVID-19, we will promote new business opportunities and facilitate installation of equipment by local subsidiaries to expand the business.

Priority fields

Priority fields	Final products
Communication devices	Smartphones Smart devices
Optical devices	3D sensors In-vehicle displays
Electronic devices (MEMS)	5G-ready equipment
Power devices	Devices for EV application Industrial robots Energy-saving equipment
Electronic packaging	Smartphones High-speed data servers IoT devices

Medium- to long-term outlook of the market environment

Since demand for electronic devices will increase with the advent of the smart society and owing to the spread of remote work, the market is expected to continue growing. Although Japanese companies still have a strong presence in the electronic device field, growth of the electronic device market is expected to center on China and elsewhere in Asia. Electronic devices related to the evolution of sensing technology, communication technology, and low-power-consumption equipment represent opportunities for the advanced electronics equipment business. Devices are evolving and we need to continue offering equipment that can keep pace with this evolution. While enhancing existing technology, careful monitoring of technological trends is indispensable since we also need to be capable of swift development in response to innovation.

Recognized Business Opportunities

- Realization of the smart society
- Manufacturing and mass production of electronic devices in Asia
- Exponential evolution and improvement of electronic devices

Conceivable Risks

- Constraints on the China business due to intensifying U.S.-China trade friction
- Sluggish consumption (automobiles etc.) due to the COVID-19 pandemic, which may not abate for some time
- Growth of Chinese competitors

Measures for Reducing Risks and Maximizing Opportunities

- Enhance production efficiency through equipment standardization
- Strengthen installation by local subsidiaries
- Strengthen and increase the speed of equipment development
- Disperse development functions overseas

Vacuum Equipment Business ③

FPD and PV Production Equipment

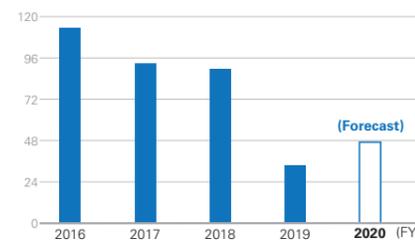


In the promising OLED and lithium-ion battery markets, we offer ever-more advanced products to customers by capitalizing on ULVAC's unique strengths in large-substrate sputtering and substrate transport technologies, thus strengthening profitability.

Yasuo Shimizu

Executive Officer,
General Manager of FPD·PV Division

Orders received (Billions of yen)



Vacuum Equipment Business ④

Components

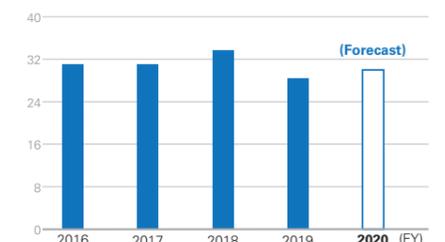


The vacuum components business is becoming increasingly borderless and competition with European and American manufacturers is inevitable. In order to prevail, we are developing a global marketing structure, enhancing efficiency of production systems, strengthening quality management systems, and establishing systems for developing products attuned to market needs.

Ju Hoon Shin

Executive Officer,
General Manager of Components Division

Orders received (Billions of yen)



Review of FY 2019

We engaged in continuous improvement activities for G10.5 sputtering equipment for large LCD TVs and maintained an overwhelming share of this market segment. However, business opportunities on major investment projects related to large LCD TVs had come to a cyclical downturn and investment related to OLED for smartphones entered a temporary adjustment phase. Moreover, extensive constraints on economic activity in line with the COVID-19 pandemic resulted in a great decrease in orders received compared with the previous fiscal year. Although the impact on net sales was limited because of a substantial order backlog at the beginning of the fiscal year, net sales were still far below the target and the level of the previous fiscal year. In order to adapt to such a drastic change in the market environment, we began initiatives in the second half to transform the business structure. There are signs that the situation is improving; for example, we received an order for a large investment project for sputtering equipment for small and medium-sized OLED.

Medium- to long-term outlook of the market environment

Remote work and non-face-to-face communication, such as online meetings, are spreading rapidly owing to the COVID-19 pandemic and a perception that it may not abate for some time. In response to these changes in the social environment, there are increasing needs for OLED displays because they can emulate face-to-face communication with superior color reproduction and responsiveness to achieve a more realistic and immersive experience. In line with this trend, developments targeting higher definition, use of larger substrates and mass-production systems are gaining momentum. The impact of the expansion of non-face-to-face communication is far-reaching and by no means limited to displays. Along with the progress of the smart society, an increase in opportunities to use electronic devices, such as wearable speakers and smartwatches, will expand demand for lithium-ion batteries that are safe and portable.

We will respond to these expanding new needs, in addition to existing sputtering technologies, and achieving technological differentiation through collaboration with leading companies with the aim of enhancing profitability.

Recognized Business Opportunities

1. Large equipment suitable for mass production of high-definition, large OLED
2. Sputtering equipment for small and medium-sized OLED
3. Evaporation roll coaters for production of electrode parts that enhance safety of lithium-ion batteries

Conceivable Risks

1. Decline in investment because the COVID-19 pandemic may not abate for a considerable time and delay in orders received and sales due to restrictions on movement
2. Constraints on the China business due to intensifying U.S.-China trade friction
3. Delay in the shift and adaption to complex next-generation technology
4. Declines in sales prices and profit due to price competition

Measures for Reducing Risks and Maximizing Opportunities

1. Jointly develop advanced technology with leading companies
2. Strengthen marketing (particularly in FPD and lithium-ion battery markets)
3. Strengthen manufacturing capabilities and develop differentiated technology
4. Strengthen the system enabling swift response to customers despite travel restrictions

Review of FY 2019

During the first half of FY 2019, order-receiving was sluggish owing to slowing investment in FPD and automotive markets as well as a worldwide decline in demand caused by U.S.-China trade friction and other factors. As soon as signs of recovery became evident in the second half, COVID-19 emerged and a challenging business environment persisted throughout FY 2019. In these circumstances, investment by customers in certain markets, such as the OLED and semiconductor markets, supported our financial performance.

By enhancing the efficiency of production and sales through integrated management of the Group, we promoted establishment of a system that will enable us to aim for further growth.

Medium- to long-term outlook of the market environment

In the OLED and optical device fields, we will develop business centering on cryopumps. In growth fields, such as semiconductors and electronic devices, we intend to expand the lineup by launching new products with the aim of increasing our market share and cultivating new customers. In particular, we will strengthen cooperation with equipment divisions to maximize the competitive advantage of ULVAC's components business with a view to accelerating growth centering on the China market.

By offering the optimum products for various fields, including analysis, medicine, and food, we are cultivating vacuum applications and promoting expansion of the cryocooler business so as to contribute to the enhancement of the comprehensive value of the ULVAC brand.

Recognized Business Opportunities

1. Large-scale investment in view of big data and the smart society
2. Expansion of market in emerging countries
3. Increase of investment in social infrastructure improvement and in fields such as medicine, food, and air conditioning

Conceivable Risks

1. Stronger competitors expanding business through M&A
2. Intensifying price competition, market entry by low-cost manufacturers
3. Prolonged sluggishness of the market environment

Measures for Reducing Risks and Maximizing Opportunities

1. Expand business fields by strengthening alliances
2. Enhance efficiency of production and sales to reduce cost
3. Develop business focusing on growth fields

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.

Application example

Applications for OLED production equipment

Vacuum measurement

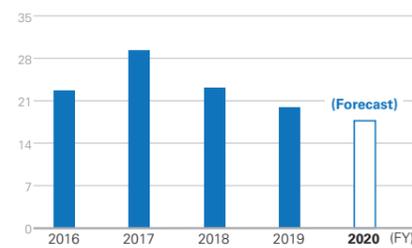
Advanced research, medical, etc.

Vacuum Equipment Business 5

Industrial Equipment

The industrial equipment business offers vacuum technology solutions involving thermal application. Our products include equipment for freeze drying foods and pharmaceuticals combining vacuum and heating/cooling technology, equipment for high-purity refining using vacuum distillation, and heat-treatment furnaces for various industrial parts. From the current fiscal year, we will promote consolidation of products in cooperation with Group companies and enhancement of equipment quality while strengthening the earnings structure by commencing structural reform of the industrial equipment business.

Orders received (Billions of yen)



Review of FY 2019

Whereas we have a competitive advantage in the market for freeze-drying equipment due to the technology that we have cultivated, the market for heat-treatment equipment was affected by continuing fierce cost competition in China, the main market for such equipment. In the second half of FY 2019, we overhauled the industrial equipment business, starting from the manufacturing processes, including consolidation of large-scale production bases through organizational integration with the advanced electronics equipment business. Positioning vacuum brazing, freeze drying, and vacuum distillation equipment as the fundamental elements of the business, we strengthened business development in China in order to expand sales in the market for vacuum melting furnaces and heat-treatment equipment.

Contributing to the full spectrum of industries

The industrial equipment business is contributing to the full spectrum of industries.

- Heat exchangers**
Radiators, EGR coolers, electronic parts cooling, etc.
→ Vacuum brazing furnaces, vacuum leak testing
- Rare-earth magnets for electric motors**
HV, EVs, wind turbines, home appliances
→ Vacuum sintering furnaces and melting furnaces
- Resin fuel tanks**
→ Vacuum leak testing
- Pharmaceuticals and food**
Generic drug manufacturing
Extraction of high-purity substances
→ Vacuum freeze-drying equipment, vacuum distillation equipment

Medium- to long-term outlook of the market environment

In the rare-earth magnet field, we will address the needs for high-efficiency, high-output, compact motors indispensable for power assist suits in the aging society, drones whose use is expanding in the service field, and human friendly robots

by offering vacuum heat treatment furnaces and vacuum melting furnaces in China, the main market. In the automotive components field, we will help meet the demand for heat exchangers for exhaust gas recirculation (EGR) coolers necessary for improving fuel efficiency by developing and offering vacuum brazing furnaces with minimal environmental impacts. In the pharmaceuticals field, new drug development is being promoted in the Japanese market, the market for generic drugs is expected to expand early, and sophisticated production technology is required for mass production of biopharmaceuticals. To meet demand in this field, we will introduce vacuum freeze-drying equipment and apply freeze time control and process monitoring, which are technologies that create added value. In the health food and electronic device fields, we will offer vacuum distillation equipment with high concentration technology for anti-aging products and high-performance resin materials, which are in demand overseas.

Recognized Business Opportunities

1. Growing demand for magnets, automotive parts, and pharmaceutical formulation in China
2. New market for services geared to population aging
3. Country-wide countermeasures for infectious diseases

Conceivable Risks

1. Rapid change in the pharmaceuticals industry due to large-scale M&A
2. Decline of existing automotive manufacturers due to the progress of autonomous driving technology, the spread of car sharing, and electrification
3. Rapid change in product value in line with the rapid change in the social environment

Measures for Reducing Risks and Maximizing Opportunities

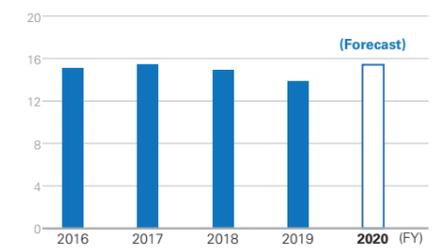
1. Strengthen response to the pharmaceuticals industry overseas
2. Cultivate opportunities for winning new orders created by accelerated electrification of automotive vehicles
3. Respond to expansion in demand for products in the healthcare industry

Vacuum Application Business

Materials

ULVAC offers high-quality, high-performance advanced materials related to vacuum technology to the worldwide market. In view of needs in the emerging smart society and for low power consumption, we develop thin-film materials (mainly sputtering targets) used in the deposition process for semiconductors, electronic devices and FPDs as well as corrosion-resistant, superconductive high-performance materials, manufacture them at our plants and supply them to customers.

Orders received (Billions of yen)



Review of FY 2019

Although the business environment was challenging owing to the impact of the COVID-19 pandemic, we managed to secure sales virtually the same level as the previous fiscal year. Among thin-film materials, those for cutting-edge semiconductors saw a steady increase in sales. Sales of IGZO target materials for FPD were virtually unchanged from the previous fiscal year as market expansion fell short of expectations. In China, the largest FPD market, sales of materials for cutting-edge displays such as LTPS and OLED grew but sales of materials for LCD (a-Si) were sluggish because of the rise of Chinese competitors. For high-performance materials, we executed capital investment with an eye to the future and made preparations to respond to the need for higher-performance materials and for increased production.

Medium- to long-term outlook of the market environment

One consequence of the trend toward realization of the smart society is that new high-performance materials are coming into their own in the semiconductor, electronic device, and the display

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.

- Sputtering equipment for large-screen TV manufacturing
- Sputtering equipment for semiconductor manufacturing
- Acceleration cavity for high-performance accelerators (use of high-purity Nb materials)

Semiconductor mask blanks business

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).

fields. They are destined to eventually supersede traditional materials. With a view to facilitating the emergence of the smart society, we are actively developing new materials required in this expanding application field in cooperation with ULVAC's equipment divisions and research institutes and together with our customers.

Recognized Business Opportunities

1. Increases of sputtering thin-film processes due to increases in semiconductors and electronic devices in the smart society
2. Switching to new materials as performance of semiconductors and electronic devices improves
3. Switching to new materials in line with the trend toward larger, higher-definition, and flexible display panels
4. Expansion of the business for superconductive materials and accelerators that use high-performance materials

Conceivable Risks

1. Decrease in the market share for FPD materials due to the rise of Chinese competitors
2. Intensifying price competition for FPD materials due to price erosion of large-screen TVs
3. Restrictions on export and supply chain interruption due to U.S.-China trade friction

Measures for Reducing Risks and Maximizing Opportunities

1. Promote joint development with leading manufacturers and influential private or public institutions
2. Invest and manufacture in growing markets (regions and products)
3. Promote alliances with partner companies
4. Further promote recycling of materials

Surface analyzer business

Whereas university and company laboratories were previously the principal users of surface analyzers, this equipment is increasingly 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.

Corporate Governance

Basic corporate governance policy and structure

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,” ULVAC, Inc. works 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, Inc. 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 Executive Officers, the Board of Corporate Auditors, and the Committee for Appointment and Remuneration, etc.

Firstly, ULVAC, Inc. 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 eight members, of whom four are external directors. Three of the external directors are designated as independent external directors. By virtue of this structure, ULVAC, Inc. 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, Inc. 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.

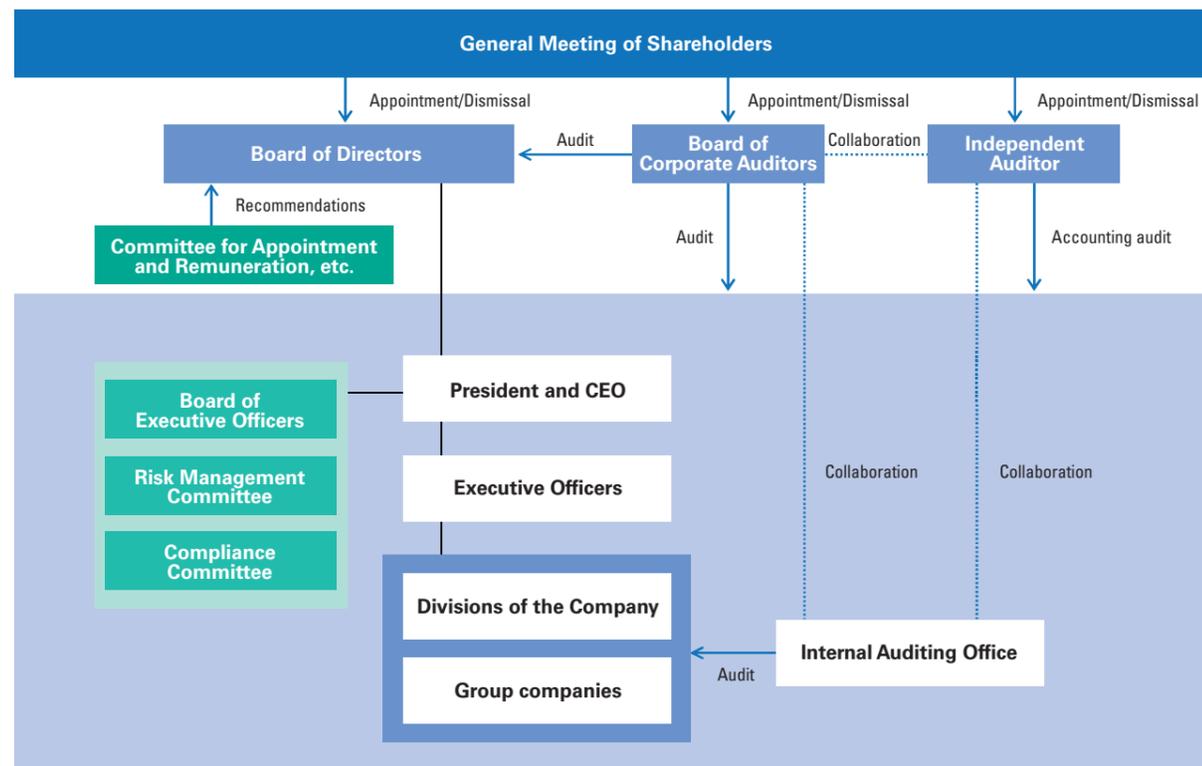
In addition, ULVAC, Inc. has a Board of Corporate Auditors, which performs auditing and supervision of management decision-making and business operations. The Board of Corporate Auditors comprises four members, of whom two are external auditors. Both of the external auditors are designated as independent 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 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.

Members of the Board of Directors, the Board of Corporate Auditors, the Board of Executive Officers, the Committee for Appointment and Remuneration, etc. are indicated in the list below.

Corporate Governance Structure (As of September 30, 2020)



Title	Name	Board of Directors	Board of Corporate Auditors	Board of Executive Officers (Note)	Committee for Appointment and Remuneration, etc.
President and Chief Executive Officer	Setsuo Iwashita	●		●	●
Director and Executive Vice President	Mitsuru Motoyoshi	●		●	
Senior Managing Director	Masasuke Matsudai	●		●	
Senior Managing Director	Dr. Choong Ryul Paik	●		●	
External Director	Hiroyuki Nishi	●			●
External Director	Norio Uchida	●			●
External Director	Dr. Kozo Ishida	●			●
External Director	Yoshimi Nakajima	●			●
Auditor	Makoto Ito	●	●	●	
Auditor	Mitsuru Yahagi	●	●	●	
External Auditor	Senshu Asada	●	●		●
External Auditor	Isao Utsunomiya	●	●		●

● Chairman ● Observer

Note: The Board of Executive Officers also comprises executive officers in addition to the above.

Corporate Governance

Directors' remuneration

In order to ensure management transparency, fairness, and appropriateness of remuneration, etc., ULVAC, Inc. has the Committee for Appointment and Remuneration, etc. consisting of external directors, external auditors, and the chairman of the Board of Directors. The Committee for Appointment and Remuneration, etc. analyzes and compares levels of remuneration of other companies, and then provides advice about remuneration, etc. suitable for ULVAC, Inc. Following the recommendations by the Committee for Appointment and Remuneration, etc., amounts of remuneration, etc. of directors are determined by a resolution of the Board of Directors within the total amount of directors' remuneration approved by the resolution* of the general meeting of shareholders. External directors' remuneration consists only of basic compensation, which is fixed compensation.

A performance-linked compensation plan is adopted for part of internal directors' remuneration, etc.

Performance-linked compensation consists of annual performance-linked compensation based on business results for the corresponding fiscal year and stock-based compensation, etc. based on a performance-linked stock-based compensation plan called Board Benefit Trust (BBT), which corresponds to the degree of achievement of annual performance targets. Evaluation of individual directors, which will be reflected in the annual performance-linked compensation, is performed and the result is determined after reporting to the Committee for Appointment and Remuneration, etc.

Under the BBT system, the Company's shares are purchased through a trust using the money contributed by the Company and are allocated to the directors in accordance with the Rules for Granting Shares to Officers set out by the Company. In principle, directors are granted the Company's shares and money equivalent to the fair value of the Company's shares at the date of retirement through the trust.

As annual performance-linked compensation is based on business results for each fiscal year, the Company does not have a policy as to its specific ratio to the basic compensation, which is fixed compensation.

* The maximum amount of aggregate remuneration for directors was set at ¥500 million per annum (including a maximum of ¥60 million for external directors) by resolution at the 114th Ordinary General Meeting of Shareholders held on September 27, 2018. The maximum amount of aggregate remuneration for auditors was set at ¥100 million per annum by resolution at the 102nd Ordinary General Meeting of Shareholders held on September 28, 2006. Moreover, Board Benefit Trust (BBT) was introduced, separately from the above-mentioned maximum amount of aggregate remuneration for directors (excluding external directors), by resolution at the 112th Ordinary General Meeting of Shareholders held on September 29, 2016.

Evaluation of effectiveness of the Board of Directors

For the purpose of enhancing functions of the Board of Directors and thus enhancing corporate value, at ULVAC, Inc. an annual self-assessment survey of directors and auditors is conducted concerning the effectiveness of the Board of Directors.

Anonymity is secured as directors and auditors provide their responses to the survey directly to an external institution. Based on the external institution's report on the survey results, the Board of Directors of ULVAC, Inc. conducts analysis and evaluation.

As a result of analysis and evaluation about the effectiveness of the Company's Board of Directors for FY 2019, it is judged that effectiveness of the Company's Board of Directors is secured. However, in view of proposals for further enhancement of the effectiveness of the Board of Directors that have been submitted by members of the Board of Directors, we will continue to strive to enhance the effectiveness of the Board of Directors.

Policy on selection of external directors and auditors

In order to enhance the effectiveness of the Board of Directors by realizing multifaceted discussion at meetings of the Board of Directors, balance among knowledge, experience, capabilities, etc., diversity, and appropriateness of the size are taken into consideration regarding the composition of the Board of Directors. Based on these perspectives, the Board of Directors carefully selects director candidates. Regarding attendance at the meetings of the Board of Directors, efforts are made to ensure an appropriate number from the viewpoint of ensuring swift decision-making.

Initiatives to ensure effectiveness of audit

Meetings of the Board of Corporate Auditors of the Company were held 15 times in FY 2019 at which important matters concerning audit, including agendas for meetings of the Board of Directors were reported and discussed. Based on discussions at meetings of the Board of Corporate Auditors and expertise of individual auditors, auditors provide recommendations to directors of the Company, as necessary, not just at meetings of the Board of Directors. ULVAC, Inc. secures opportunities for auditors to periodically exchange views with directors, staff of the Internal Auditing Office, and the Independent Auditor on wide-ranging matters such as compliance and the situation concerning design of internal control.

Principal activities in FY 2019

Name of external director/auditor	Reasons for selection as an external director/auditor	Attendance and principal activities
Akira Mihayashi	To receive valuable opinions based on his extensive experience and broad perspective as a corporate manager of other companies	Attended all 12 meetings of the Board of Directors held during the fiscal year and provided opinions for deliberation of the agenda as necessary, based on his extensive experience and advanced insight as a corporate manager of other companies
Norio Uchida	To receive valuable opinions based on his extensive experience and broad perspective as a corporate manager of other companies in Japan and overseas	Attended all 12 meetings of the Board of Directors held during the fiscal year and provided opinions for deliberation of the agenda as necessary, based on his extensive experience and advanced insight in Japan and overseas as a corporate manager of other companies.
Dr. Kozo Ishida	To receive valuable opinions based on his extensive experience, technical expertise and broad perspective as a corporate manager of other companies	Attended 11 meetings out of 12 meetings of the Board of Directors held during the fiscal year and provided opinions for deliberation of the agenda as necessary, based on his extensive experience and technical expertise as a corporate manager of other companies
Yoshimi Nakajima	To receive valuable opinions based on her extensive experience and broad perspective as a corporate manager of other companies both in Japan and overseas	Attended all 12 meetings of the Board of Directors held during the fiscal year and provided opinions for deliberation of the agenda as necessary, based on her extensive experience and advanced insight as a corporate manager of other companies both in Japan and overseas.
Senshu Asada	To receive valuable opinions based on his experience and insight as an attorney	Attended all 12 meetings of the Board of Directors and all 15 meetings of the Board of Corporate Auditors held during the fiscal year and provided opinions for deliberation of the agenda as necessary, mainly from a specialist perspective as an attorney.
Isao Utsunomiya	To receive valuable opinions based on his experience and insight as a certified public tax accountant	Attended all 12 meetings of the Board of Directors and all 15 meetings of the Board of Corporate Auditors held during the fiscal year and provided opinions for deliberation of the agenda as necessary, mainly from a specialist perspective as a certified public tax accountant.

Policy on training of directors and auditors

ULVAC, Inc. provides its directors and auditors with opportunities for training deemed necessary in order for them to fulfill their roles and responsibilities.

Specifically, training for newly appointed external directors includes explanation of ULVAC's organizational structure, businesses, and the management plan and visits to ULVAC plants. Moreover, visits to principal subsidiaries and plants in Japan and overseas are regularly organized.

For newly appointed auditors, ULVAC, Inc. provides training opportunities on a par with those for newly appointed directors upon the request of auditors. After they take office as directors and auditors, ULVAC, Inc. provides them with financial support for training deemed necessary in order for them to fulfill their duties and encourages them to enhance their expertise. These training opportunities are reviewed on a continuous basis and updated as necessary.

Policy on strategic shareholdings

ULVAC, Inc. makes distinction between investment shares held for pure investment purposes and those held for purposes other than pure investment purposes. We classify shares held for the purpose of receiving gains from changes in the share value or from dividend income as shares held for pure investment purposes and shares held for other purposes (strategic shareholding) as shares held for purposes other than pure investment purposes.

ULVAC, Inc. may acquire shares of a listed company with which it has transactions only when it is judged that maintaining and strengthening the business relationship with the entity by acquiring its shares contributes to ULVAC's sustainable growth and enhancement of corporate value over the medium to long term.

Regarding strategic shareholdings, an annual assessment is conducted on whether or not to hold each individual strategic shareholding, examining whether the purpose is appropriate in terms of the benefits and risks from each holding or the Company's cost of capital, and the results of this assessment are reported at a meeting of the Board of Directors. If, as a result of the assessment, it is judged that the holding of certain shares has little significance, the Company considers reduction of the shareholding of such shares.

Management Structure

Directors



Setsuo Iwashita
President and Chief Executive Officer

March 1984 Joined the Company
 August 1992 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 of Chinese 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 of the Company; Chairman of ULVAC (CHINA) HOLDING CO., LTD.
 July 2016 Senior Managing Executive Officer and Senior Manager of Management Planning Department of the Company
 September 2016 Director and Senior Managing Executive Officer, Senior Manager of Management Planning Department of the Company
 July 2017 President and Chief Executive Officer of the Company
 January 2019 President and Chief Executive Officer and General Manager of Human Resource Center of the Company
 July 2020 President and Chief Executive Officer of the Company (current position)



Mitsuru Motoyoshi
Director and Executive Vice President

April 1980 Joined the Company
 July 2000 Senior Manager of Accounting Department
 September 2005 Director and Senior Manager of Accounting Department
 July 2010 Director and Senior Manager of Management Planning Department
 July 2012 Director and Executive Officer, Senior Manager of Management Planning Department
 July 2013 Chairman of ULVAC TAIWAN INC.
 July 2014 Director and Managing Executive Officer, Senior Manager of Management Planning Department of the Company
 Director and Senior Managing Executive Officer, Senior Manager of Management Planning Department
 July 2015 Director and Senior Managing Executive Officer, Senior General Manager of Business; Strategy Headquarters
 July 2017 Chairman of ULVAC (Shanghai) Trading Co., Ltd.; Chairman of ULVAC (SUZHOU) CO., LTD.; Chairman of ULVAC SINGAPORE PTE LTD (current position); Chairman of ULVAC MALAYSIA SDN. BHD. (current position)
 July 2018 Director and Executive Vice President of the Company
 January 2019 Chairman and Chief Executive Officer of ULVAC (CHINA) HOLDING CO., LTD.; Chairman of ULVAC Automation Technology (Shanghai) Corporation
 July 2019 Director and Executive Vice President, General Manager of Management Empowerment Center of Excellence of the Company, responsible for associate companies; Chairman of ULVAC Tianma Electric (Jingjiang) Co., Ltd.
 January 2020 Chairman of ULVAC (CHINA) HOLDING CO., LTD. (current position)
 July 2020 Director and Executive Vice President (in charge of Group companies) of the Company (current position)



Hiroyuki Nishi
Director

External

April 1983 Joined Nippon Life Insurance Company
 March 2007 General Manager of International Planning & Operations Dept. and General Manager of China Office
 March 2010 Executive Officer, General Manager of Europe, Deputy Director-General and General Manager of London Representative Office
 July 2011 Director and Executive Officer, General Manager of the Americas, General Manager of Europe, Deputy Director-General, and General Manager of New York Representative Office Dept., General Manager of the Americas, General Manager of Europe, and General Manager of Asia
 March 2014 Director and Managing Executive Officer, General Manager of International Planning & Operations Dept., General Manager of the Americas, General Manager of Europe, and General Manager of Asia
 March 2017 Director and Senior Managing Executive Officer, General Manager of the Americas, General Manager of Europe, and General Manager of Asia
 March 2018 Director
 March 2018 President and Chief Executive Officer of Nissay Asset Management Corporation
 March 2020 Advisor of Nissay Credit Guarantee Co., Ltd.
 April 2020 President and Chief Executive Officer (current position)
 September 2020 External Director of the Company (current position)



Norio Uchida
Director

External Independent

April 1973 Joined Tokyo Optical Co., Ltd. (currently TOPCON CORPORATION)
 June 1980 General Manager of Topcon Singapore Pte. Ltd.
 February 1989 President of Topcon Australia Pty Ltd.
 October 1994 Senior Vice President of Topcon Laser Systems, Inc. (currently Topcon Positioning Systems, Inc.)
 July 1999 President of Topcon Laser Systems Japan, Inc.
 June 2003 Executive Officer of TOPCON CORPORATION
 July 2003 Director and President of Topcon Sales Corporation (currently TOPCON SOKKIA POSITIONING JAPAN CO., LTD.)
 June 2005 Director and Executive Officer of TOPCON CORPORATION
 June 2007 Director and Managing Executive Officer
 June 2010 Director and Senior Managing Executive Officer
 June 2011 Representative Director, President & CEO
 June 2013 Advisor to the Board
 June 2015 External Director of Nabtesco Corporation (current position)
 September 2015 External Director of the Company (current position)



Masasuke Matsudai
Senior Managing Director

April 1981 Joined the Company
 July 2003 General Manager of FPD Division I
 September 2006 Director and General Manager of FPD Division I
 July 2012 Director and Executive Officer, Senior General Manager of Global Manufacturing Promotion Division
 July 2013 Director and Executive Officer, Senior General Manager of Corporate Sales & Marketing Division
 June 2014 External Director of SHOWA SHINKU CO., LTD. (current position)
 July 2014 Director and Managing Executive Officer, Senior General Manager of Corporate Sales & Marketing Division of the Company
 July 2015 Director and Senior Managing Executive Officer, Senior General Manager of Corporate Sales & Marketing Division
 July 2016 President of ULVAC TECHNO, Ltd.; Senior Managing Executive Officer of the Company
 January 2019 Senior Managing Executive Officer, Senior General Manager of Customer Support Headquarters
 July 2019 Senior Managing Executive Officer, General Manager of New Business Development Center of the Company and Chairman of ULVAC TECHNO, Ltd.
 September 2019 Director and Senior Managing Executive Officer, General Manager of New Business Development Center of the Company; Chairman of ULVAC TECHNO, Ltd.
 June 2020 Chairman of Japan Vacuum Industry Association (current position)
 July 2020 Senior Managing Director (in charge of New Business Development & CS business) of the Company (current position)
 August 2020 President and Chief Executive Officer of ULVAC EQUIPMENT SALES, Inc. (current position)
 September 2020 Chairman of ULVAC TECHNO, Ltd. (current position)



Dr. Choong Ryul Paik
Senior Managing Director

April 1991 Joined the Company
 September 1999 Joined ULVAC KOREA, Ltd. as Senior Director
 September 2000 President of ULVAC KOREA, Ltd.
 September 2012 Executive Officer of the Company
 July 2015 Managing Executive Officer of the Company
 September 2016 Chairman of ULVAC KOREA, Ltd. (current position)
 July 2018 Managing Executive Officer, Senior General Manager of R&D Headquarters of the Company
 September 2018 Director and Managing Executive Officer, Senior General Manager of R&D Headquarters
 July 2019 Director and Managing Executive Officer, General Manager of Innovation Center of Excellence
 July 2020 Senior Managing Director (in charge of Innovation) of the Company; President and Chief Executive Officer of ULVAC-PHI, Inc. (current position)



Dr. Kozo Ishida
Director

External Independent

March 1970 Joined HORIBA, Ltd.
 June 1982 General Manager of Product Department I, Development and Sales Division
 June 1988 Director
 June 1991 Managing Director
 June 1996 Senior Managing Director
 June 2002 Vice President and Director
 June 2005 Executive Vice President and Representative Director
 March 2011 Director and Advisor of HORIBA STEC Co., Ltd.
 March 2014 Vice Chairman and Representative Director of HORIBA, Ltd.
 March 2016 Senior Advisor
 September 2016 External Director of the Company (current position)
 March 2017 External Director of Seiko Electric Co., Ltd. (current position)
 April 2018 Fellow of HORIBA, Ltd. (current position)



Yoshimi Nakajima
Director

External Independent

April 1980 Joined The Yasuda Trust and Banking Co., Ltd. (currently Mizuho Trust & Banking Co., Ltd.)
 February 1982 Joined AVON PRODUCTS CO., LTD.
 May 1997 Joined Citibank, N.A. as Vice President
 June 2000 Joined Societe Generale Securities Services as Senior General Manager
 April 2002 Joined American Express International, Inc. as Vice President in charge of Global Traveler's Check & Prepaid Card Service, Japan Branch
 August 2011 Country Manager in Singapore (President)
 February 2014 Senior Vice President of Japan Branch
 April 2014 President and Representative Director of American Express Japan Co., Ltd.
 June 2017 External Director of Yamaha Corporation (current position); External Director of AEON Financial Service Co., Ltd. (current position)
 June 2018 External Director of Japan Freight Railway Company (current position)
 September 2018 External Director of the Company (current position)

Auditors



Makoto Ito
Auditor

April 1984 Joined Nippon Life Insurance Company
 March 2008 General Manager of 1st Osaka Corporate Finance Dept. and Kyushu Area Corporate Finance Dept.
 March 2012 General Manager of Metropolitan Area Corporate Finance Dept.
 April 2015 Joined the Company. Counselor to Senior Manager of Management Planning Department
 September 2015 Audit & Supervisory Board Member (current position)



Mitsuru Yahagi
Auditor

April 1983 Joined the Company
 July 1995 Manager of Product Development Section, Vacuum Pumps Department, Precision Machinery Division
 July 1996 Manager of Section I, Product Development Department, Components Division
 July 1999 Manager of Section II, Precision Machinery Technology Department, Components Division
 July 2004 Senior Manager of Research Department II, Research and Development Division
 June 2011 General Manager of Research and Development Division
 July 2018 Adviser to Senior Manager of Management Planning Department
 September 2018 Audit & Supervisory Board Member (current position)



Senshu Asada
Auditor

External Independent

April 1977 Registered as an attorney. Joined the Daini Tokyo Bar Association
 October 1996 Jointly established Koju Law Firm
 June 2001 External Audit & Supervisory Board Member of HIMIKO Co., Ltd.
 September 2007 External Auditor of the Company (current position)
 April 2012 Auditor of Judo Federation of Tokyo (current position)
 March 2014 Councilor of All Japan Judo Federation (current position)
 June 2017 External Director of Ahkun Co., Ltd.



Isao Utsunomiya
Auditor

External Independent

April 1997 Registered as Certified Public Tax Accountant
 July 1999 Opened Isao Utsunomiya Certified Public Tax Accountant Office
 June 2011 Manager of Welfare Department of Kyobashi Branch, Tokyo Certified Public Tax Accountants' Association
 June 2012 Representative Partner of Tsukiji Accounting Tax Corporation (current position)
 June 2013 Director of Tokyo Certified Public Tax Accountants' Association
 June 2015 Director and Deputy Manager of General Administration Department
 June 2017 Manager of General Administration Department of Kyobashi Branch
 September 2017 External Auditor of the Company (current position)
 June 2019 Deputy General Manager of Kyobashi Branch, Tokyo Certified Public Tax Accountants' Association (current position)

Messages from External Directors



Norio Uchida

The business environment is changing at dizzying speed. In this challenging environment, ULVAC's growth hinges on its ability to cultivate excellent human resources, achieve superiority in technology and manufacturing capabilities, and share information effectively. ULVAC is aiming to achieve profitable, sustained growth after a phase of structural reform and management base building. To accomplish this, ULVAC has to overcome the challenges confronting it.

The Company's financial situation is improving and ULVAC must actively make investments that will win the approval of external stakeholders while making thorough business selection and concentration the norm. I would particularly like to see a location strategy focusing on countries where technology and manufacturing are particularly advanced. In addition to maintaining a management stance focused on compliance and governance, the Board of Directors will proactively involve itself in and supervise investment targeting the key priority of becoming a top global company, human resources development, strengthening of crisis management, and education to improve scenario capabilities for strategy execution.

Global human resources, world-leading technologies and manufacturing capabilities, information sharing, and proper and speedy management decision-making will form the foundation for the ULVAC Group's future growth. Whereas reform is top-down, growth is a full-participation, bottom-up process. I ask that all employees maintain crisis awareness at all times, improve their adaptability and sensitivity to change in the environment, and aim to be business professionals capable of holding their own in the world beyond ULVAC. Let's all work in unison to create a new ULVAC corporate culture.



Kozo Ishida

COVID-19 has thrust the world into economic and social turmoil, triggering unprecedented political challenges for humankind. ULVAC has grown by engaging globally in businesses that broadly support industrial and public infrastructure by adding new technologies, such as plasma technology, to vacuum technology. However, ULVAC is inevitably caught up in the turmoil caused by the COVID-19 pandemic.

To escape from this turmoil, not only conventional thinking, but also wisdom and action, are strongly needed at this time. I believe it is important to view this enormous social transformation as a great opportunity. We should exploit the next openings for growth boldly and deliberately, with all employees joining forces as a single united team, and return to the fundamentals of manufacturing, with all divisions and Group companies accumulating improvements and innovating. Furthermore, the stakeholders expect ULVAC to demonstrate preparedness and the practices necessary to accomplish the objectives in the mid-term management plan with a sense of alacrity.

To that end, I think it is important to build up the strength needed to confront an unprecedented crisis by actively undertaking redevelopment of ULVAC's human resources and accumulated technologies so as to increase resilience to change in preparation for the future. I intend to tackle this together with the employees.



Yoshimi Nakajima

Expanding its business as "A company needed by society" amid unprecedented change in the business environment is both a challenge and an great opportunity for ULVAC. Clearly, transformation is required to strengthen manufacturing capabilities while improving our profitability and continuously increase market share by anticipating market needs. Furthermore, progress is being made in cultivating a mindset conducive to boldly taking on challenges without dwelling on past successes. I have come to this realization in light of management's strong commitment and the dynamic bottom-up ideas and autonomous awareness activities emanating principally from young employees.

The challenge for ULVAC, which operates in the global market, is how timely and flexible the organization can be in changing itself in a rapidly changing environment. "Career path to secure and develop human resources that will drive global expansion" and "Strengthen and establish organizational culture for change" are necessary to solve the challenge.

Based on my management experience at U.S. and European global companies as well as my experience of business in Asia, I have sought to continuously contribute by focusing primarily on human resources and corporate culture. I want to help realize effective and speedy reforms by continuing to make effective use of time spent in contact with employees in different regions and at different organizational levels, endeavoring from an external perspective to grasp the necessary actions and systems while offering advice with an eye to effective execution.

Risk Management

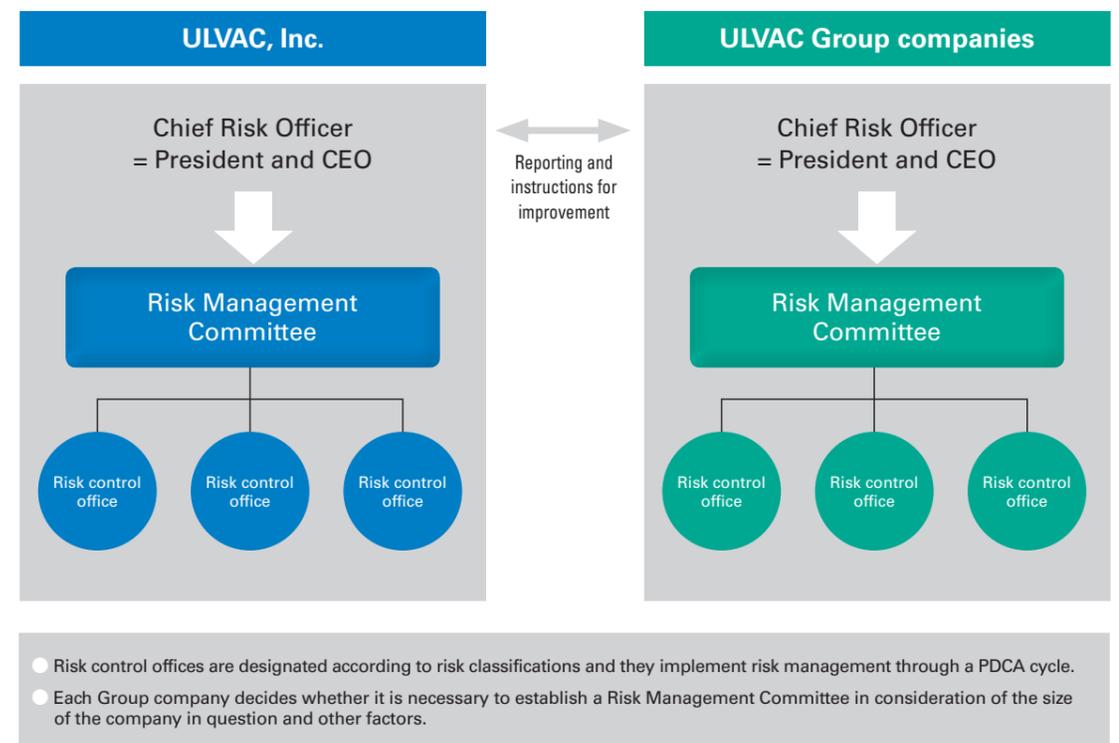
The ULVAC Group considers that responding appropriately to increasingly complex and diverse risk factors leads to the creation of governance structures that contribute to the fulfillment of legal requirements and the creation of internal control structures, and by extension, the medium- to long-term 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, Inc. 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, Inc. are implemented at ULVAC Group companies as appropriate for the scale and business type of the company in question.

Risk Management System



Risk Management (Continued)

Management of risks

Principal risks that may have a significant impact on ULVAC's financial position, business results, and cash flows are identified as below. ULVAC examines measures to reduce these risks and utilize them as opportunities through discussion at a decision-making body such as the Board of Executive Officers.

Market fluctuation

ULVAC has achieved growth by developing and introducing unique products in the field of vacuum equipment that are used, in particular, in FPD, semiconductor, and electronic device production processes. If a great reduction in customers' capital investment occurs or customers' financial conditions deteriorate owing to change in the market conditions, ULVAC's business results and financial position may be adversely affected.

Under the twofold basic policy, "investment in development for growth (selection and concentration)" and "profit-oriented management through structural change," of the new mid-term management plan launched in FY 2020, even in the case of market fluctuation ULVAC aims to improve profitability by enhancing productivity and achieve sustainable growth by focusing on development in growth fields.

Research and development

By maintaining vigorous R&D investment, ULVAC has continued to introduce a stream of new products that incorporate cutting-edge technology. However, if development is significantly delayed for a compelling reason, resulting in delay in introduction of new products in the market, ULVAC's business results and financial position may be adversely affected.

ULVAC is accelerating development, which is necessary for growth, through selection and concentration of investment. At the same time, periodic monitoring is implemented for progress management in order to prevent significant delay in development.

Political and economic situations in various countries and regions

ULVAC operates an array of businesses globally. Various factors related to change in political and economic situations in various countries and regions may have an adverse impact on ULVAC's business results and financial position.

ULVAC pays particular attention to the risk that tariffs and various regulations may be imposed as a consequence of intensification of the U.S.-China trade conflict and will implement necessary

countermeasures. Meanwhile, it is expected that domestic production of electronic devices and semiconductors will be encouraged in China. ULVAC considers this to be an opportunity for business expansion and is working to further expand business in China.

COVID-19 countermeasures

It is a concern that worldwide travel restrictions and deterioration of the economic environment due to the COVID-19 pandemic may persist. ULVAC has established the COVID-19 Emergency Response Headquarters headed by the President and CEO and is striving to minimize the impact on business activities by implementing measures to prevent spread of COVID-19.

Recognized business risks

- 1 Impact of fluctuations in FPD, semiconductor and electronic device markets
- 2 Impact of research and development
- 3 Impact of the global competitive environment
- 4 Impact concerning securing of human resources
- 5 Impact concerning laws and regulations
- 6 Impact concerning quality
- 7 Impact concerning financing
- 8 Impact concerning information security
- 9 Impact due to currency fluctuations
- 10 Impact concerning intellectual property
- 11 Impact concerning safety
- 12 Impact concerning environmental responses
- 13 Impact of COVID-19
- 14 Other risks
(force majeure in various countries and regions)

Compliance

ULVAC 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.

Corporate Code of Conduct

ULVAC 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, Inc. is working to create a culture of compliance through awareness-raising activities. As part of this effort, we conduct periodic and ad hoc online training and face-to-face training on corporate ethics, export compliance, prevention of insider training, prevention of harassment, and other topics, and test the degree of comprehension.

Whistleblowing System

ULVAC, Inc. 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 unfavorably in any way. Reports can also be submitted anonymously.

After a whistleblower report has been received, the initial response is for the Compliance Committee of ULVAC, Inc. 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.

Quality Assurance and Product Safety

The ULVAC Group is engaging in initiatives worldwide to meet customer expectations for high-level, safe ULVAC quality through total quality management (TQM).

ULVAC Group Quality Policy

- Improve quality & reduce costs and L/T (lead time) to half
- Maximize profits and customer satisfaction

Quality Assurance System

38 ULVAC Group companies are ISO9001: 2015 certified. The Global Quality Assurance Committee led by the president of ULVAC, Inc. spearheads a Group-wide effort to align quality policies and are addressing quality issues and deploying improvements globally.



Quality management is promoted by way of thorough analysis of defects that occurred at a process within the process, implementation of recurrence prevention measures, feedback of findings, implementation of preventive measures, and process standardization activities.

ULVAC's Total Quality Management



Year-on-year comparison of costs related to nonconformity after delivery (non-consolidated)



The ratio of costs related to nonconformity after delivery to net sales deteriorated in FY 2019 because a defect

was found in the reliability evaluation process for development of a certain product. We will analyze the causes, implement measures to prevent recurrence, and share this throughout the Group to achieve total quality management.

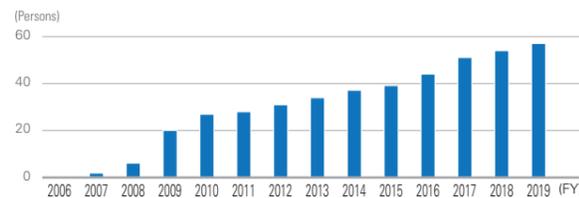
Quality Management Education

In order to raise employees' awareness concerning quality at ULVAC, educational materials on quality management for new employees and for employees engaged in engineering, design, and quality assurance are registered on the ULVAC Academy Portal² so that they can be accessed remotely. In FY 2019, educational materials offered by external instructors (Grade 3 level of JSA's QC KENTEI (Quality Management and Quality Control Examination)) became newly available. Moreover, in order to develop human resources capable of advocating ULVAC's quality philosophy, we are preparing to design and establish ULVAC's unique quality qualifications and skill enhancement education.

Product Safety Activities

To deliver safe and secure ULVAC brand products to markets around the world, qualified safety assessors³ 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 line with expansion of production in Asia, in order to establish an independent verification system at overseas production bases, we are promoting not only periodic information exchange but also group-based education in each area and exchanges of personnel. Non-Japanese quality safety assessors at overseas sites have started to play active roles. ULVAC is promoting product safety activities throughout the Group, which will lead to greater customer satisfaction.

Number of qualified safety assessors at ULVAC



¹ "Front Loading" ordinarily refers to arranging or planning so that a large portion of work occurs in the initial phase. At ULVAC, it is an activity to create quality by identifying issues as soon as possible.
² ULVAC's e-learning system. See P.46 for details.
³ Safety Assessor (SA) Qualification is a qualification scheme based on third-party certification of machine safety knowledge and competence under international safety standards.

Procurement

Suppliers are important partners of ULVAC for manufacturing. ULVAC is working with them to enhance efficiency of the entire supply chain (from design, procurement, manufacturing, and sales, through to customer support), always being conscious of the environment and society.

Procurement Policy

ULVAC, Inc. has established, observes, and promotes the Basic Procurement Policy. ULVAC is also promoting CSR procurement in cooperation with its business partners in accordance with the "Requests to our business partners," which is based on the RBA¹ Code of Conduct. In July 2019, we conducted a questionnaire survey targeting our major business partners in terms of the amount of transactions. As a result, no serious problems, such as child labor, forced labor, inhumane treatment, fraud or bribery, were detected at any of the business partners. In FY 2020, in view of the RBA Code of Conduct and the questionnaire survey results, we will upgrade the management system by reviewing the items concerning "assessment materials" for registration of new business partners and renewals in an effort to enhance CSR procurement.

Moreover, in order to maintain sound, good relationships with business partners, ULVAC established the Purchasing Code of Conduct, a set of principles emphasizing compliance for employees engaged in procurement, in July 2019. In-house education is provided every year for employees engaged in ULVAC, Inc.'s procurement and that of Group companies in Japan involved in production of ULVAC products.



Communication with Business Partners

ULVAC, Inc. has been holding operations briefing meetings once a year as a forum for ULVAC management to directly explain to business partners the business environment and prospects and supplier meetings three times a year for the person in charge to communicate production plans in a timely manner. In view of the COVID-19 pandemic, we have cancelled these meetings and launched a membership-based website in September 2020. In addition to the provision of information at the meetings, we intend to enrich the content of this website to promote sharing of information and collaboration with our business partners.

Policy on Conflict Minerals

Conflict minerals are minerals that are sourced from conflict-affected and high-risk areas (CAHRAs) and whose extraction and sale directly or indirectly serve as sources of funding for armed groups or are root causes of serious human rights abuses and poor working conditions. The policy of ULVAC, Inc. is not to purchase or use 3TGs² and cobalt raw materials derived from conflict minerals.

ULVAC manufactures and sells sputtering targets and various tantalum wrought products in the materials business. We conduct due diligence in accordance with the guidance of OECD and RMI³ through conflict minerals surveys covering raw materials suppliers in order to ensure transparency of transactions. In FY 2019, no procured items that use 3TGs or cobalt derived from conflict minerals were detected.

Revision to the Green Procurement Standards

ULVAC revised the Green Procurement Standards in August 2020 and began use of the chemSHERPA⁴ declarable substance list provided by the Joint Article Management Promotion (JAMP) consortium. In order to ensure the effectiveness of this practice, suppliers are requested to 1) implement ongoing environmental improvement through the introduction of an environmental management system and other means and 2) build a system for controlling chemical substances contained in products.

Integrated procurement system

ULVAC is improving procedures, systems and structures for procurement to realize global procurement at the parts level. Although we had been sourcing many key parts in Japan, we conducted benchmarking of suppliers worldwide and identified specific issues in logistics and trade. As it is necessary to ensure confidentiality, completeness, and availability of purchasing data on a system supporting global procurement, we have launched an integrated system for parts registration and for registration and evaluation of suppliers and begun standardization of management procedures.

¹ Responsible Business Alliance. CSR promotion group focused on the electronics industry in global supply chains
² Tantalum, tin, tungsten, and gold
³ Responsible Minerals Initiative. An organization that inspects smelters and refiners handling 3TGs to certify that they are not using conflict minerals
⁴ Scheme for enabling sharing of information on chemical substances contained in products throughout the supply chain

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 resources development and focusing on cultivating the leaders of tomorrow.

Basic Policy

In recent years, a shift toward the smart society has begun worldwide. With the advent of a wave of technological innovation, global competition is intensifying. Amid such tremendous changes, ULVAC, whose overseas sales account for over 60% of total sales, cannot operate business sustainably unless it provides an environment where people with diverse personalities and strengths can maintain physical and mental health, bring their differing capabilities into full play, and enhance one another's capabilities through friendly competition.

At ULVAC, people with different backgrounds, in

terms of nationality, ethnicity, philosophy, culture, language, gender, age, and specialty, are flourishing. We respect such diversity and promote inclusion, and innovate to resolve customers' and society's issues. By doing so, we aim to continue to deliver new value that also leads to the personal growth of each employee.

Based on this policy, we are reinforcing the development of global human resources capable of thriving in a changing external environment in order to successfully compete in a business environment characterized by dramatic change.

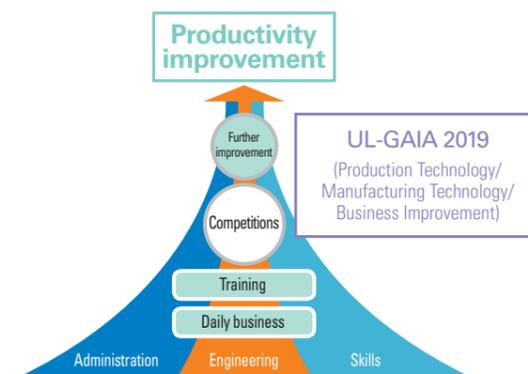
ULVAC Basic Policy for Human Resources Development

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

UL-GAIA 2019

ULVAC has held the Global Manufacturing Technology Competition and Global Business Improvement Competition for the purpose of enabling individuals to pursue productivity improvement and share the outcomes of their efforts. The aim of the Global Manufacturing Technology Competition is value creation through the improvement and innovation of the value chain process, and it is positioned as a forum where the participants present the outcomes (benefits) of their initiatives and processes for resolving issues. The aim of the Global Business Improvement Competition is to create mechanisms and measures to inculcate ULVAC's management policies in day-to-day work, maximize groupwide synergy, and strengthen cross-organizational functions to support resolution of issues relevant to two or more Group companies, and it is positioned as a forum where the participants make presentations on topics such as cost-reduction impacts, process improvements to tackle issues, and enhancement of operational efficiency and productivity.



In FY 2019, we combined the two competitions into UL-GAIA 2019. Under the slogan Breakthrough: Passion and Challenge, 16 teams that won contests in their countries or regions gathered together and made highly original presentations. The name UL-GAIA, which is short for ULVAC Global Awards of Improved Achievement, was chosen to liken the ULVAC Group to Gaia (the Earth) and create an award for the pursuit of integration and productivity improvement on a global scale.

Through UL-GAIA, our aim is to ensure all employees are aware of the importance of putting the Basic Corporate Philosophy and the Management Policies into practice in their work and linking their work to outcomes that contribute to achieving ULVAC's vision.

Developing the Next Generation of Leaders

In FY 2019, ULVAC conducted the ULVAC Executive Program (UEP) with the aim of cultivating leaders who will persistently and aggressively grapple with global change. A total of 15 participants selected from among candidates at ULVAC, Inc. and domestic and overseas Group companies participated in the program over a period of six months. By combining UEP with the ULVAC Leadership Program (ULP), an education program for young leaders, we will focus on developing the next generation of leaders.

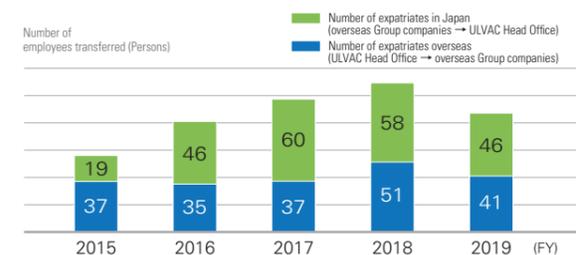
Groupwide Education and Training

ULVAC has long provided level-specific education, starting with an introductory program for new employees and a program for employees in their third year. We are now in the process of rebuilding the education system, including these programs. First, to increase the basic professional competence of young employees, we are establishing a manufacturing education center and administration education center to ensure that young employees acquire basic knowledge. Furthermore, to provide training to employees from Group companies in Japan and overseas, we will establish a course on the history, culture, and management strategy of ULVAC as well as other subjects and implement global personnel exchanges.

Human Resources Rotation

We are vigorously promoting human resources rotation in the Group, especially between ULVAC Head Office and overseas Group companies, as a measure to promote the diversity and inclusion mentioned above. Moreover, by vigorously promoting assignment of ULVAC employees to companies outside the Group on loan and vice versa, we are striving to vitalize human resources and establish human networks while also expecting to achieve innovation through technical exchange.

Human resources rotation between ULVAC Head Office and Group companies



ULVAC Academy Portal

We are promoting e-learning throughout ULVAC based on the concept of providing an environment that enables learning anytime anywhere. Since its launch in 2016, the contents posted on ULVAC Academy Portal have grown to include some 1,200 items.

ULVAC Academy Portal now supports Japanese, English, Chinese, and Korean. Some 6,000 ULVAC employees have registered and are using the portal.

Principal contents

- Message from the President
- Video clips of seminars held in ULVAC
- Engineering education on technology, design, manufacturing, etc.
- Mandatory education for onsite employees, such as basic product safety education
- Education on trading and security trade control, etc.

Creating an Excellent Working Environment

ULVAC, Inc. is creating a working environment in which employees can demonstrate their strengths and originality while enhancing their productivity, and furthermore we are developing conditions and programs that minimize the impact of life events, so that diverse human resources can flourish and perform well.

Improvement of systems for flexible workstyles

ULVAC, Inc. offers a staggered working hour system and a flextime system. We also introduced an hourly annual paid leave system in 2020. The number of days of paid leave taken is increasing: the average number of days taken increased from 10.9 days in FY 2018 to 12.4 days in FY 2019.

Systems for supporting childcare

To assist employees in their efforts to achieve a balance between work and childcare, ULVAC, Inc. has introduced leave, holidays, and short-working hours systems that go beyond the statutory requirements. Childcare leave can be taken until the first April 30 after a child reaches two years of age. The short-working-hours system for childcare is available for employees who have a child up to the third grade in elementary school.

All employees who took childcare leave have returned to work. Male employees also take childcare leave.

Retention of human resources and transfer of technological expertise

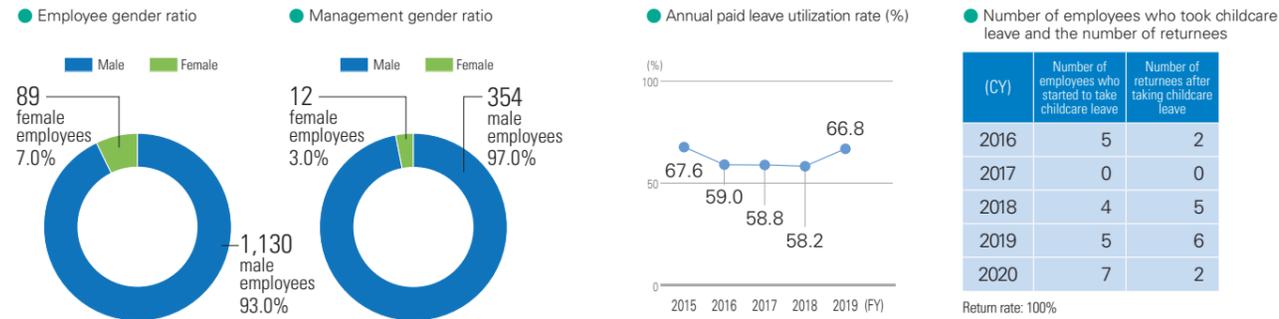
Mindful that technological innovation is triggered by the integration of accumulated technology, new knowledge, and creativity, ULVAC emphasizes human resources development, the retention of employees, and the transfer of technological expertise. For example, we conduct a questionnaire survey of new employees six months after they join ULVAC, Inc. and their superiors, and any gaps in perception are promptly addressed.

The system for rehiring senior employees after mandatory retirement has taken root, and furthermore, we have set up a special employee system for post-retirement senior employees (after retirement at the age of 65) to create an opportunity for experienced employees to display their abilities and transfer their technological expertise to the next generation.

Human Resources (Continued)

For details Website>>Sustainability>Human Resources

Human Resources Data (non-consolidated)



Promotion of Health Management

Making further progress in creating a working environment that enables employees in excellent physical and mental health and good spirits to demonstrate their abilities to the fullest is important for the ULVAC Group's future development. At ULVAC, Inc., the president, the Chief Health Promotion Officer, the senior manager of the General Administration Department, occupational health physicians, and occupational health nurses act in unison to promote health management activities. In addition to legally prescribed health checks, stress checks, and face-to-face guidance for employees who work long hours by an occupational health physician, the Company pursues initiatives for general health improvement, such as wellness improvement and reduction of health risks.

Priority Activity 1 Wellness Improvement

ULVAC Inc. has set a wellness improvement target of "An increase of 20% in the number of people who work energetically by FY 2020 compared to FY 2014."

In addition to organization vitalization training conducted since FY 2014, since FY 2019 we have held a Case Study Review Meeting, which encourages organizational development through the cultivation of complex problem-solving skills and interpersonal skills, including by simulating the experience of outside parties through failure case studies and problem case studies. We also provide wellness support by distributing to employees information on subjects such as how best to physically and mentally cope with stress caused by change in the working environment and on the promotion of good habits.

As a result of these activities, according to the findings of ULVAC's organizational health survey, the percentage of employees who work energetically*1 has increased compared to FY 2014 (Fig.1). We will continue to implement health measures aligned with our organizational policies to enhance organizational health.

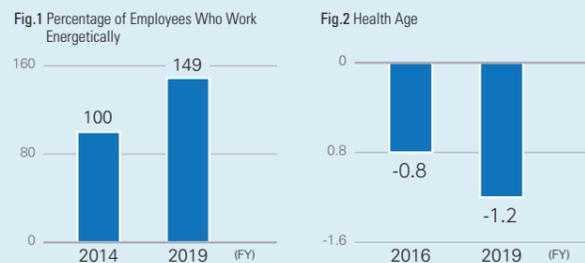
Priority Activity 2 Health Risk Reduction

ULVAC, Inc. has set a health risk reduction target of "Health age*2 3.0 years lower than actual age by FY 2020."

We provide lifestyle improvement support to all employees, such as an online education program that includes education about long working hours, sleep education, women's health education, and pre-health check education, and a walking program that utilizes the PepUp healthcare platform.

Thanks in part to the effects of these measures, the health age of employees has gradually improved. In FY 2019, ULVAC, Inc. received the Kanagawa Prefecture

Governor's Award in the Kanagawa Prefecture My ME-BYO Record inter-company walking program.*3



*1 The average score for all items of the percentage of people answering "5. I strongly agree" for five items concerning vitality toward work (five-point scale) in a survey at the time of application for a health check, with the value for FY 2015 as 100.
 *2 An index developed by JMDC Inc. based on the medical checkup data and medical expenses of 1.6 million people. ULVAC, Inc. began measurement in FY 2016.
 *3 Kanagawa Prefecture website: <https://www.pref.kanagawa.jp/docs/mv4/prs/r2372098.html> (Japanese only)

As a result of implementing these measures, ULVAC, Inc. has been certified by the Ministry of Economy, Trade and Industry as a Certified Health and Productivity Management Organization (White 500), and ULVAC TECHNO, Ltd., ULVAC EQUIPMENT SALES, Inc., ULVAC Human Relations, Ltd., and ULVAC-PHI, Inc. have been certified as Certified Health and Productivity Management Organizations. ULVAC will continue pursuing various initiatives at domestic Group companies to maintain and promote the health of employees.



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 to 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.

management reviews conducted by the president and other executives and risk assessments performed by each employee. For example, hazards associated with chemical substances have been attracting attention, as indicated by frequent revisions of laws in recent years. We identify risks at phases from transport and storage to disposal at the work planning stage and are strengthening measures to ensure safety.

As a result, the Chigasaki Plant was certified by the Ministry of Health, Labour and Welfare for achieving a Type-V zero accident record* (total of 15.7 million hours) in FY 2019 and the Fuji Susono Plant for a Type-I zero accident record (total of 3.1 million hours) in FY 2018. These plants are maintaining their zero accident records. With "Safety First" as their motto, all Group companies will continue their efforts to extend the zero accident record.

* The number of accident-free hours for recognition of a zero accident record is determined according to the starting date of the record, the industry type and the number of workers. A certificate of a zero accident record will be issued by the Ministry of Health, Labour and Welfare when a business site maintains no fatal accidents or accidents with lost working hours for the specified number of hours. Zero accident record certificates ranges from Type I to Type V, with Type V being the highest level.

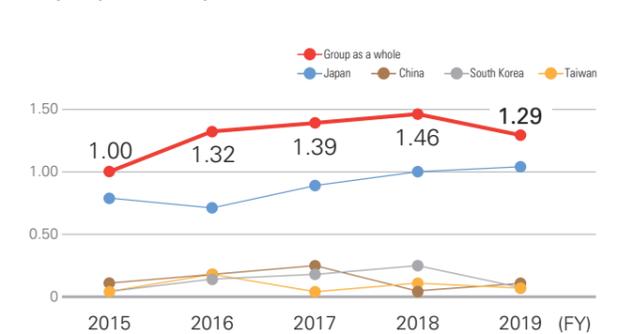
ULVAC Basic Policy on Occupational Safety and Health Management System (OSHMS)

- 1. Compliance to the code/regulations, and implementation of risk assessment**
Comply with Codes of Occupational Safety & Health Management and Rules according to ULVAC's OSHMS, and conduct Risk Assessment in order to perform Occupational Safety & Health Management activities with the help of all the employees.
- 2. Assure safety of ULVAC's products**
Comply with ULVAC's standard for safety design and perform risk assessment of our products, in order to deliver our safe products and services to our customers.
- 3. Planned education about Occupational Safety & Health & Product Safety**
For all the employees and contractor's employees, 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 to 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 work environment for the whole ULVAC group, and contribute to prosperity of our businesses.

ULVAC's Safety Management System



Frequency ratio of occupational accidents at ULVAC



* This graph shows the rate of occupational accidents for each fiscal year, with the value for FY 2015 (as of June 2016) as 1.00. Although the number of accidents had been rising in recent years, this trend reversed in FY 2019 as various safety activities bore fruit.

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 ISO 14001 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 and manufacturing processes.

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 FY 2019

Total waste emissions decreased 17% compared with the previous fiscal year.

This decrease is considered to be attributable to a decrease in the use of acid and alkali in Japan due to the change of chemical agents and an approximately 50% decrease in waste discharged by Group companies in South Korea and China.

We are also implementing group-wide initiatives, including visualization of wattage, 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.

Major initiatives

GHD series of oil rotary vacuum pumps equipped with magnet coupling: ULVAC KIKO, Inc.

Conventional oil rotary vacuum pumps have an oil seal at the rotor shaft to prevent leakage of oil to the atmospheric side. However, oil leakage tends to occur owing to wear and tear due to long-term operation. Also, when the pump is stopped while the vacuum status is maintained in the vacuum chamber of the equipment to which the pump is connected, backflow of oil from the pump to the vacuum chamber through the air intake pipe occurs because of atmospheric pressure. In order to prevent oil backflow when pump operation is stopped, conventional oil rotary vacuum pumps have a valve. As a solution to these problems, ULVAC KIKO, Inc. offers the GHD series of oil rotary vacuum pumps. They are equipped with a non-contact-type magnet coupling that transmits power using magnetic force and eliminates the need for a shaft seal at the atmospheric side, instead of contact-type coupling used for power transmission from the motor to the pump. They are also equipped with a differential pressure sealing-type check valve directly below the intake pipe. Design for environment is adopted for the GHD series, applying the concept of quiet operation, space saving, and no oil leakage. Compared with conventional contact-type models, the GHD series reduces power consumption by up to 20 W.



GHD-031 oil rotary vacuum pump

Management of chemical substances

Chemical substances are highly versatile and functional and are widely applied in everyday life. On the other hand, some substances are harmful to the human body and the environment. ULVAC uses a wide variety of chemical substances in the parts and materials composing products (metals, resins, coatings, etc.), manufacturing processes (organic solvents, lubricants, and other substances used in cleaning, etc.), and technology development (chemicals, gases, etc.). We appropriately manage these substances and strive to prevent accidents and environmental pollution.

Plastic reduction initiatives

ULVAC is working to reduce use of plastics, considering that it is important to emphasize environmental protection in every aspect of business activities.

In Japan, the amount of packaging materials purchased was reduced by 15% year on year at ULVAC Head Office/Plant and at ULVAC-PHI, Inc. and by 24% year on year at ULVAC TECHNO, Ltd. by promoting reuse in house of packaging materials for pumps.

ULVAC TAIWAN INC. achieved a 7% year-on-year reduction in plastic consumption by ceasing the use of disposable cushioning materials and by switching to reusable cushioning materials with antistatic functions.

ULVAC CRYOGENICS KOREA INCORPORATED is endeavoring to eliminate the use of vinyl packaging for raw materials. It provided dedicated trolleys to the suppliers for delivery of raw materials. As a result, vinyl consumption in the first half of FY 2019 was reduced by 30% compared with the same period of the previous year.

ULVAC will continue initiatives to reduce plastic consumption and promote recycling.



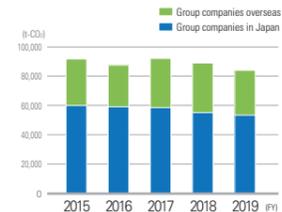
Reusable cushioning materials with antistatic functions introduced by ULVAC TAIWAN INC.

Material balance (Source: Aggregate data for FY 2019)

INPUT		OUTPUT	
Electricity consumption	172,442 thousand kWh	CO ₂ emissions	83,929 t-CO ₂ (Emissions due to consumption of electricity, gas, and fuels)
Gas consumption	LPG : 214 t LNG : 680 t City gas : 1,201 thousand m ³	Total waste emissions	7,062 t Total amount of waste recycled: 6,007 t Amount of landfill 345.5 t
Fuel consumption	Heavy oil: 33 kL Kerosene oil: 26 kL Diesel oil: 166 kL	Final landfill disposal rate	4.9 %
Water consumption	1,419 thousand m ³		
Packaging materials	990 t		

* The above data are based on the data from 37 Group companies in Japan and overseas.
* The volume of packaging materials is based on the data from 18 Group companies in Japan and overseas.

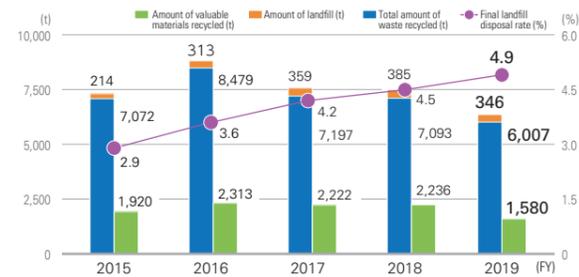
CO₂ emissions



Water consumption



Waste emissions



11-year Financial Data

Financial Data

		FY2009 2010.6	FY2010 2011.6	FY2011 2012.6	FY2012 2013.6
	(Unit)				
Key financial results					
Net sales* ¹	Millions of yen	221,804	232,040	196,804	163,351
Operating profit (loss)	Millions of yen	4,809	1,850	(6,384)	6,115
Ordinary profit (loss)	Millions of yen	4,942	1,441	(6,497)	6,264
Net income (loss)* ²	Millions of yen	2,138	(8,706)	(49,984)	(3,807)
Net assets	Millions of yen	102,504	92,023	41,187	59,436
Total assets	Millions of yen	313,784	313,616	249,651	243,289
Cash flows from operating activities	Millions of yen	44,312	17,730	(8,492)	22,357
Cash flows from investing activities	Millions of yen	(10,876)	(14,833)	(11,328)	(4,506)
Cash flows from financing activities	Millions of yen	(23,418)	2,159	12,616	(3,619)
Cash and cash equivalents at end of period	Millions of yen	29,721	35,722	28,180	44,204
Key performance indicators					
Net assets per share	Yen	1,992.06	1,787.51	751.00	806.38
Net income per share	Yen	46.60	(176.43)	(1,012.94)	(87.79)
Equity ratio	%	31.3	28.1	14.8	22.7
ROE (return on equity)* ³	%	2.3	—	—	—
Ratio of ordinary profit to total assets* ⁴	%	1.6	0.5	—	2.5
Price-earnings ratio* ⁵	Times	37.34	—	—	—
Other indicators					
Capital expenditure	Billions of yen	11.1	17.8	12.7	6.8
R&D expenses	Billions of yen	8.0	8.3	7.1	5.0
Interest-bearing debt	Billions of yen	100.2	105.1	120.2	106.1
Dividends	Yen	21.0	—	—	—
Dividend payout ratio	%	45.1	—	—	—
Number of employees	Persons	7,169	7,878	6,981	6,579

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 FY2010 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.

	FY2013 2014.6	FY2014 2015.6	FY2015 2016.6	FY2016 2017.6	FY2017 2018.6	FY2018 2019.6	FY2019 2020.6
Key financial results							
Net sales* ¹	173,878	179,174	192,437	231,831	249,271	220,721	185,402
Operating profit (loss)	11,996	11,132	17,864	29,468	35,351	23,828	15,958
Ordinary profit (loss)	13,384	12,475	18,373	29,716	36,907	25,575	18,052
Net income (loss)* ²	11,538	8,874	16,698	24,469	35,904	18,665	10,769
Net assets	72,238	84,928	78,032	104,917	154,069	157,588	161,093
Total assets	230,791	242,348	219,561	245,306	297,418	282,302	282,350
Cash flows from operating activities	32,213	21,992	23,708	37,818	19,086	18,282	18,738
Cash flows from investing activities	(3,023)	(4,055)	(5,593)	(13,713)	(1,564)	(9,448)	(4,143)
Cash flows from financing activities	(16,881)	(14,895)	(32,448)	(22,580)	(10,734)	(5,844)	7,455
Cash and cash equivalents at end of period	57,012	61,670	44,862	47,555	54,348	55,859	77,948
Key performance indicators							
Net assets per share	1,040.23	1,398.66	1,477.29	2,002.90	2,994.12	3,062.39	3,132.22
Net income per share	223.18	172.73	338.37	496.35	728.68	378.78	218.54
Equity ratio	29.2	32.8	33.2	40.2	49.5	53.5	54.6
ROE (return on equity)* ³	18.8	12.1	21.9	28.5	29.2	12.5	7.1
Ratio of ordinary profit to total assets* ⁴	5.6	5.3	8.0	12.8	13.6	8.8	6.4
Price-earnings ratio* ⁵	9.66	10.91	9.21	10.88	5.82	9.02	14.23
Other indicators							
Capital expenditure	6.2	6.7	7.0	8.3	12.9	12.9	10.3
R&D expenses	5.2	5.6	6.3	6.9	8.3	9.2	8.4
Interest-bearing debt	89.6	82.6	62.7	42.7	35.7	35.6	49.8
Dividends	—	10.0	30.0	50.0	95.0	105.0	80.0
Dividend payout ratio	—	5.8	8.9	10.1	13.0	27.7	36.6
Number of employees	5,971	5,904	5,886	6,072	6,439	6,424	6,370

Financial Overview

Forward-looking statements contained in this document are based on the current assumptions and beliefs of the ULVAC Group in light of the information available to it as of September 29, 2020.

Business Results

For the fiscal year ended June 30, 2020 (FY 2019), net sales amounted to ¥185,402 million, a decrease of 16.0% year on year. Net sales of FPD and PV production equipment were below the level of the previous fiscal year in line with decreases in orders received for both LCD production equipment for large-screen TVs and OLED production equipment for smartphones. Orders received decreased because investment in LCDs for large-screen TVs had come to a cyclical downturn and investment in OLEDs for smartphones entered a temporary adjustment phase. Net sales of semiconductor and electronic device production equipment increased from the previous fiscal year because demand for electronic device production equipment remained firm, a recovery trend of memory-related investment became apparent, and ULVAC's entry in the field for logic devices was also a contributory factor.

Operating profit margin was 8.6%, down 2.2 percentage points from the previous fiscal year. This decrease was mainly because lower net sales could not be fully offset by reducing fixed costs.

R&D expenses totaled ¥8,353 million, a decrease of ¥856 million from the previous fiscal year. The ratio of R&D expenses to net sales was 4.5%, an increase of 0.3 percentage points from the previous fiscal year due to a decrease in net sales. Although the amount of R&D expenses decreased from the previous fiscal year owing to restrictions on movement and so on

because of the COVID-19 pandemic, the ULVAC Group is continuing to emphasize investment with a view to future growth.

Regarding indicators for evaluating the degree of achievement of the management policies, management strategies, and management objectives during the period until FY 2019 covered by the mid-term management plan, the ULVAC Group used net sales, operating profit, and operating profit margin as key performance indicators. As described on Page 23, the ULVAC Group formulated a new mid-term management plan, "Breakthrough 2022," which covers three years from FY 2020. The basic policy of this mid-term management plan is twofold: "investment in development for growth (selection and concentration)" and "profit-oriented management through structural change." Under this policy, the ULVAC Group will use net sales, gross profit margin, operating profit margin, return on equity (ROE), and operating cash flow as new key performance indicators.

Quantitative targets for the third year (FY 2022) of the mid-term management plan are net sales of ¥210.0 billion, gross profit margin of 35% or higher, operating profit margin of 16% or higher, ROE of 13% or higher, and operating cash flow of ¥29.0 billion. The Group aims to achieve further growth from a medium-to long-term perspective by implementing specific initiatives to attain the targets of the new mid-term management plan.

Management's recognition, analysis and discussion of operating results by business segment are as follows.

■ Vacuum Equipment Business

Segment net sales decreased 17.5% year on year to ¥154,773 million. Net sales of FPD and PV production equipment were below the level of the previous fiscal year because investment in LCDs for large-screen TVs had come to a cyclical downturn and investment in OLEDs for smartphones decreased. Despite the impact of the COVID-19 pandemic, net sales of semiconductor and electronic device production equipment were above the level of the previous fiscal year because of firm demand for electronic device production equipment and the contribution of sputtering equipment for logic devices. Regarding components, sales of cryopumps, vacuum pumps, and measuring equipment decreased following robust sales in the previous fiscal year. Segment profit margin deteriorated from 11.1% for the previous fiscal year to 8.8% for the fiscal year under review. This deterioration was mainly attributable to the fact that

the decrease in net sales of FPD and PV production equipment was significant and could not be fully offset by the growth in net sales of high-margin semiconductor and electronic device production equipment and by the reduction of fixed costs.

■ Vacuum Application Business

Segment net sales decreased 7.3% year on year to ¥30,629 million. Lower net sales reflected a decrease in orders received for sputtering target materials for LCDs in line with the decrease in the facility utilization rate of customers' plants whereas mask blank-related demand remained firm. Segment profit margin deteriorated from 9.0% for the previous fiscal year to 5.4% for the fiscal year under review. This deterioration was mainly attributable to the fact that the decrease in net sales could not be fully offset by the reduction of fixed costs.

Financial Position

Total assets at the end of FY 2019 amounted to ¥282,350 million, having increased ¥48 million compared with the figure at the previous FY year-end. The main factors were a ¥22,137 million increase in cash on hand and in banks, whereas notes and accounts receivable, trade, inventories, and deferred tax assets decreased ¥10,534 million, ¥4,669 million, and ¥4,072 million, respectively. Total liabilities amounted to ¥121,256 million, having decreased ¥3,458 million compared with the figure at the previous fiscal year-end. The main factors were a ¥9,309 million decrease in notes and

accounts payable, trade, a ¥4,280 million decrease in advances received, a ¥3,649 million decrease in short-term loans payable, and a ¥1,462 million decrease in income taxes payable, whereas long-term loans payable increased ¥17,909 million. Net assets amounted to ¥161,093 million, having increased ¥3,505 million compared with the figure at the previous fiscal year-end. The main factor was a ¥5,587 million increase in retained earnings, whereas accumulated other comprehensive income decreased ¥2,143 million. As a result, the equity ratio at the end of FY 2019 was 54.6%.

Cash Flows

Cash and cash equivalents at the end of FY 2019 amounted to ¥77,948 million, having increased ¥22,089 million compared with the figure at the previous fiscal year-end. The status of cash flows from operating, investing and financing activities and major contributing factors were as follows.

Cash Flows from Operating Activities

Net cash provided by operating activities amounted to ¥18,738 million compared with net cash provided by operating activities amounting to ¥18,282 million for the previous fiscal year. The main factors contributing to cash inflows were income before income taxes, depreciation, a decrease in notes and accounts receivable-trade, and a decrease in inventories. The main factors contributing to cash outflows included a decrease in notes and accounts payable-trade and a decrease in advances received.

Cash Flows from Investing Activities

Net cash used in investing activities amounted to ¥4,143 million compared with net cash used in investing activities amounting to ¥9,448 million for the previous fiscal year. The main factors included purchase of property, plant and equipment and intangible assets and proceeds from sales of investment securities.

Cash Flows from Financing Activities

Net cash provided by financing activities amounted to ¥7,455 million compared with net cash used in financing activities amounting to ¥5,844 million for the previous fiscal year. The main factors included an increase in long-term loans payable, cash dividends paid, and a decrease in short-term loans payable.

Financial Resources and Liquidity

The ULVAC Group's funding needs are principally for R&D investment and capital investment, which will underpin a new growth strategy, and for working capital for business operations. The Group intends to expand investment for development in the semiconductor and electronic device fields to strengthen growing businesses. Such demand for funds is satisfied by cash flows from operating activities and borrowings from financial institutions. In fund procurement, the Group endeavors to level the annual amount of repayment in order to reduce refinancing and the repayment burden.

While the outlook is unclear owing to the COVID-19 pandemic etc., in order to ensure preparedness for contingencies, the Group has secured sufficient liquidity in hand through increased borrowings and by other means. The Group has also put in place a system that enables it to secure additional funds by concluding commitment-line contracts. Thus, the Group is capable of stable operation for the time being. The Group will maintain the system that ensures timely access to necessary funds so as to be capable of responding to rapid change in the business environment.

Consolidated Financial Statements

Consolidated Balance Sheets

(Millions of yen)

	FY2018 (As of June 30, 2019)	FY2019 (As of June 30, 2020)
Assets		
Current assets		
Cash on hand and in banks	58,557	80,694
Notes and accounts receivable, trade	77,236	66,702
Merchandise and finished goods	3,937	3,883
Work in process	24,033	21,004
Raw materials and supplies	11,803	10,217
Other	6,840	6,903
Allowance for doubtful accounts	(444)	(419)
Total current assets	181,962	188,985
Non-current assets		
Property, plant and equipment		
Buildings and structures	80,546	81,850
Accumulated depreciation	(50,595)	(52,735)
Buildings and structures, net	29,951	29,115
Machinery, equipment and vehicles	71,500	76,740
Accumulated depreciation	(54,042)	(57,428)
Machinery, equipment and vehicles, net	17,459	19,312
Tools, furniture and fixtures	14,338	13,933
Accumulated depreciation	(12,358)	(12,295)
Tools, furniture and fixtures, net	1,981	1,638
Land	8,357	8,344
Leased assets	1,813	3,851
Accumulated depreciation	(1,099)	(1,284)
Leased assets, net	715	2,567
Construction in progress	7,226	4,213
Total property, plant and equipment	65,687	65,189
Intangible assets		
Leased assets	55	53
Software	1,030	973
Other	2,361	2,251
Total intangible assets	3,446	3,278
Investments and other assets		
Investment securities	13,797	11,869
Deferred tax assets	10,180	6,108
Other	11,690	9,343
Allowance for doubtful accounts	(4,462)	(2,422)
Total investments and other assets	31,207	24,898
Total non-current assets	100,340	93,365
Total assets	282,302	282,350

(Millions of yen)

	FY2018 (As of June 30, 2019)	FY2019 (As of June 30, 2020)
Liabilities		
Current liabilities		
Notes and accounts payable, trade	40,748	31,439
Short-term loans payable	14,915	11,266
Lease obligations	306	666
Income taxes payable	2,802	1,340
Advances received	15,849	11,569
Accrued employees' bonuses	3,625	2,686
Accrued directors' bonuses	485	372
Accrued warranty costs	1,632	1,672
Provision for loss on order received	1,099	1,323
Other	13,041	9,952
Total current liabilities	94,501	72,285
Long-term liabilities		
Long-term loans payable	20,668	38,577
Lease obligations	551	1,999
Deferred tax liabilities	16	27
Net defined benefit liability	7,846	7,363
Accrued directors' retirement benefits	75	—
Provision for board benefit trust	145	156
Asset retirement obligations	399	402
Other	512	447
Total long-term liabilities	30,213	48,972
Total liabilities	124,714	121,256
Net Assets		
Shareholders' equity		
Capital stock	20,873	20,873
Capital surplus	3,912	3,912
Retained earnings	120,985	126,571
Treasury shares	(247)	(349)
Total shareholders' equity	145,522	151,007
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	6,652	5,301
Foreign currency translation adjustment	266	(572)
Remeasurements of defined benefit plans	(1,528)	(1,482)
Total accumulated other comprehensive income	5,390	3,246
Non-controlling interests	6,676	6,840
Total net assets	157,588	161,093
Total liabilities and net assets	282,302	282,350

Consolidated Financial Statements

Consolidated Statements of Income

(Millions of yen)

	FY2018 (July 1, 2018–June 30, 2019)	FY2019 (July 1, 2019–June 30, 2020)
Net sales	220,721	185,402
Cost of sales	155,845	134,805
Gross profit	64,876	50,596
Selling, general and administrative expenses		
Selling expenses	18,217	13,091
General and administrative expenses	22,830	21,547
Total selling, general and administrative expenses	41,047	34,638
Operating profit	23,828	15,958
Non-operating income		
Interest income	183	171
Dividend income	687	634
Compensation income	21	779
Share of profit of entities accounted for using equity method	346	494
Other	1,579	1,433
Total non-operating income	2,816	3,511
Non-operating expenses		
Interest expenses	293	437
Other	776	980
Total non-operating expenses	1,069	1,418
Ordinary profit	25,575	18,052
Extraordinary income		
Gain on sales of investment securities	1,710	3,261
Gain on change in equity	303	—
Gain on sales of non-current assets	75	47
Total extraordinary income	2,088	3,308
Extraordinary losses		
Loss on retirement of non-current assets	156	64
Impairment loss	331	175
Other	27	—
Total extraordinary losses	515	239
Income before income taxes	27,148	21,122
Current income taxes	6,709	4,790
Deferred income taxes	451	4,596
Total income taxes	7,160	9,386
Net income	19,988	11,736
Net income attributable to non-controlling interests	1,323	967
Net income attributable to owners of parent	18,665	10,769

Consolidated Statements of Comprehensive Income

(Millions of yen)

	FY2018 (July 1, 2018–June 30, 2019)	FY2019 (July 1, 2019–June 30, 2020)
Net income	19,988	11,736
Other comprehensive income		
Valuation difference on available-for-sale securities	(8,298)	(1,347)
Foreign currency translation adjustment	(2,773)	(759)
Remeasurements of defined benefit plans, net of tax	226	48
Share of other comprehensive income of entities accounted for using equity method	190	(142)
Total other comprehensive income	(10,655)	(2,200)
Comprehensive income	9,334	9,536
Comprehensive income attributable to:		
Owners of parent	8,280	8,626
Non-controlling interests	1,054	910

Consolidated Statements of Cash Flows

(Millions of yen)

	FY2018 (July 1, 2018–June 30, 2019)	FY2019 (July 1, 2019–June 30, 2020)
Cash flows from operating activities		
Income before income taxes	27,148	21,122
Depreciation	6,938	7,849
Impairment loss	331	175
Increase (decrease) in allowance for doubtful accounts	2,048	(2,053)
Increase (decrease) in accrued employees' bonuses	505	(1,031)
Increase (decrease) in net defined benefit liability	(100)	(411)
Increase (decrease) in accrued directors' retirement benefits	(197)	(75)
Increase (decrease) in provision for board benefit trust	11	10
Increase (decrease) in accrued warranty costs	(82)	34
Increase (decrease) in provision for loss on orders received	27	224
Interest and dividend income	(870)	(806)
Interest expenses	293	437
Subsidy income	(74)	(150)
Loss (gain) on sales of investment securities	(1,710)	(3,261)
Loss (gain) on sales of non-current assets	(75)	(47)
Share of (profit) loss of entities accounted for using equity method	(346)	(494)
Loss (gain) on change in equity	(303)	—
Decrease (increase) in notes and accounts receivable - trade	7,508	9,941
Decrease (increase) in inventories	(3,185)	2,718
Increase (decrease) in notes and accounts payable - trade	(13,913)	(7,985)
Increase (decrease) in advances received	(328)	(4,186)
Increase (decrease) in accrued consumption taxes	677	(370)
Other	1,457	3,430
Subtotal	25,761	25,071
Interest and dividend income received	1,222	1,111
Interest expenses paid	(270)	(450)
Income taxes paid	(8,432)	(6,994)
Net cash provided by (used in) operating activities	18,282	18,738
Cash flows from investing activities		
Payments into time deposits	(5,589)	(3,728)
Proceeds from withdrawal of time deposits	5,602	3,707
Purchase of property, plant and equipment and intangible assets	(11,338)	(8,828)
Proceeds from sales of property, plant and equipment and intangible assets	231	1,175
Proceeds from sales of investment securities	1,779	3,371
Proceeds from subsidy income	216	150
Other	(348)	10
Net cash provided by (used in) investing activities	(9,448)	(4,143)
Cash flows from financing activities		
Net increase (decrease) in short-term loans payable	(7,288)	(3,785)
Proceeds from long-term loans payable	15,100	26,689
Repayments of long-term loans payable	(7,929)	(8,607)
Repayments of lease obligations	(358)	(787)
Cash dividends paid	(4,683)	(5,175)
Purchase of treasury shares	(0)	(120)
Dividends paid to non-controlling interests	(687)	(760)
Net cash provided by (used in) financing activities	(5,844)	7,455
Effect of exchange rate change on cash and cash equivalents	(908)	39
Net increase (decrease) in cash and cash equivalents	2,082	22,089
Cash and cash equivalents at beginning of period	54,348	55,859
Decrease in cash and cash equivalents resulting from exclusion of subsidiaries from consolidation	(571)	—
Cash and cash equivalents at end of period	55,859	77,948

Company Data/Stock Information

Company Profile As of June 30, 2020

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 1,333 Consolidated 6,370

Directors, Auditors and Executive Officers As of September 29, 2020

President and Chief Executive Officer	Setsuo Iwashita	Managing Executive Officer	Tetsuya Shimada
Director and Executive Vice President	Mitsuru Motoyoshi	Senior Executive Officer	Shigemitsu Sato
Senior Managing Director	Masasuke Matsudai	Senior Executive Officer	Dr. Kazuya Saito
Senior Managing Director	Dr. Choong Ryul Paik	Senior Executive Officer	Tomoyasu Kondo
External Director	Hiroyuki Nishi	Executive Officer	Sadao Aoki
External Director	Norio Uchida	Executive Officer	Yu Jer Tsai
External Director	Dr. Kozo Ishida	Executive Officer	Zheng Ming Zeng
External Director	Yoshimi Nakajima	Executive Officer	Dr. Koukou Suu
		Executive Officer	Shinji Takahashi
		Executive Officer	Yasuo Shimizu
		Executive Officer	Kenji Yamaguchi
		Executive Officer	Dr. Ju Hoon Shin
		Auditor	Makoto Ito
		Auditor	Mitsuru Yahagi
		External Auditor	Senshu Asada
		External Auditor	Isao Utsunomiya

Stock Information As of June 30, 2020

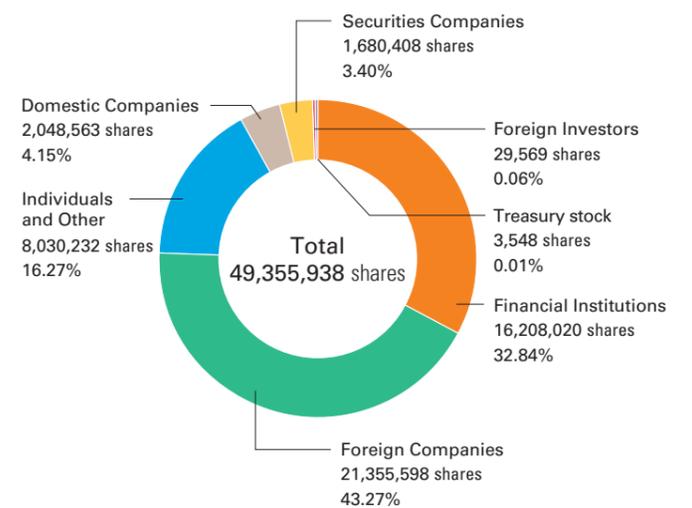
Total number of shares authorized	100,000,000
Total number of shares issued	49,355,938
Total number of shareholders	16,410

Major Shareholders

Shareholder's name	Number of shares (Thousands)	Shareholding ratio (%)
Nippon Life Insurance Company	3,242	6.57
TAIYO FUND,L.P.	2,831	5.74
Japan Trustee Services Bank, Ltd. (Trust account)	2,452	4.97
The Master Trust Bank of Japan, Ltd. (Trust account)	2,419	4.90
TAIYO HANEI FUND,L.P.	1,616	3.28
3D OPPORTUNITY MASTER FUND	1,427	2.89
Mizuho Bank, Ltd.	1,278	2.59
Sumitomo Mitsui Banking Corporation	1,243	2.52
STATE STREET BANK AND TRUST COMPANY 505103	1,173	2.38
NORTHERN TRUST CO.(AVFC) RE HSD00	1,093	2.21

Note: Treasury stock (3,548 shares) is excluded from the calculation of shareholding ratios.

Number of Shares Held by Shareholder Type



ULVAC Group Companies As of September 30, 2020

- Bases of ULVAC, Inc.
- Bases of ULVAC Group companies in Japan/overseas
- R&D base
- Sales and service bases

