





Management Planning Department ULVAC, Inc. 2500 Hagisono, Chigasaki, Kanagawa Prefecture 253-8543, Japan TEL. +81-467-89-2033 FAX. +81-467-82-9114

https://www.ulvac.co.jp/en/

ulvac value report **2021**



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

1

'ULVAC' is a combination of 'UL' from 'ultimate' and 'VAC' from 'vacuum,' signifying that we pursue the 'Ultimate in Vacuum Technology.' In 1952, ULVAC was founded by a group of young people aspired to contribute to Japan's post-war reconstruction and the development of industry and science through the use of vacuum technology. This aspiration created various vacuum technology equipment which played an important role in multiple fields such as automobiles and electrical appliance in everyday life to raw materials and chemicals in the industrial field. For the most advanced industries such as flat panel displays, semiconductor and electronics, vacuum technology has become an absolute essential, and we have grown along with people's way of life. Our mission is to continue to create value for the world and contribute to the future of people and the earth through vacuum technology.

In an era of change, we challenge to change, without being satisfied with the status quo, and will always pursue the forefront through vacuum technology, together with our partners. We will contribute to the realization of a sustainable society through vacuum technology while fulfilling our social responsibilities.

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 guest to realize the remarkable potential inherent in vacuum technology.

For example, using vacuum technology, it is possible to create ultrathin films with micronto 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 (memory, logic, power semiconductors, etc.) production equipment
- Electronic device (MEMS, communication devices, optical devices, etc.) production equipment
- Electronic packaging equipment (WL-CSP, FoPLP, etc.)

FPD production equipment

- LCD production equipment
- OLED production equipment
- Roll coater

Components

- Vacuum pumps
- Vacuum gauges
- Helium leak detectors
- Process gas monitors
- Power generators for deposition processes
- Vacuum valves
- Film deposition controllers
- Vacuum 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
- Micro powder dry
- Power 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, etc.

Major Vacuum Equipment

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

Table of Contents/Editorial Policy

ULVAC VALUE REPORT 2021 TABLE OF CONTENTS

About ULVAC

- 5 ULVAC's History
- 7 ULVAC's Businesses
- **Consolidated Financial and Non-financial** 9 Highlights

ULVAC's Vision

- Commitment of Top Management 11 15 **ULVAC's Value Creation** Process **Priority Issues** Value Offered by ULVAC's Business Research & Development and Global Expansion 23 ULVAC's Sustainable Management
- Mid-term Management Plan: Breakthrough 25 2022

Business Strategy

29 Vacuum Equipment Business

1 Semiconductor Production Equipment

3 FPD Production Equipment

4 Components 5 Industrial Equipment

34 Vacuum Application Business

Materials Other

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 deeper dialogue with them

Published:

November 2021 (Previous issue published in November 2020) Guidelines Referenced: ISO26000: 2010 (Guidance on social responsibility) First Edition The International Integrated Reporting Framework, the International Integrated Reporting Council (IIRC) (January 2021)

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, 2021

(July 1, 2020 to June 30, 2021, FY 2020) Some portions of the report include activities and initiatives from July 2021 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

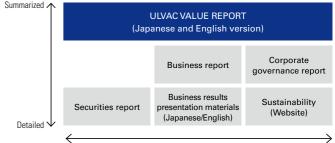
2 Electronic Device Production Equipment

Strengthening of Foundation for Value Creation

35	Corporate Governance		
39	ULVAC's Value Creation from the Perspective of External Directors		
43	Management Structure		
45	Risk Management		
47	Compliance		
48	Human Rights		
49	Human Resources		
52	Occupational Safety and Health		
53	Quality Assurance and Product Safety		
54	Procurement		
55	Environment		
Financial Data/			
Cor	oorate Information		

- 59 11-vear Financial Data
- 61 **Financial Overview**
- 63 **Consolidated Financial Statements**
- Company Data/Stock Information/ULVAC 67 **Group Companies**

ULVAC's Communication Tools



Financial information

Non-financial information

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 leverage the characteristics of 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.

Metal/steel

100 kg-class vacuum

induction melting furnace

Established a subsidiary in

Hamburg, then West Germany,

as a base for cultivating the

western European market.

952~ 1960~ 1962~ 1973~ 1975~

Automobile



Reflectors for automobiles

ULVAC

Cto



Vacuum evaporation equipment

History 1952

5

 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

1968

1969

Pharmaceuticals

Chemical/

pharmaceutical/food

High-vacuum distillation equipment for plasticizers

Established the first overseas

subsidiary in Hong Kong.



I CD calculator display



Transparent conductive film deposition equipment

法规材料日期

Established a subsidiary in Taiwan Established the Tsukuba

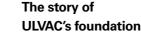
Institute for Super Materials in Tsukuba Science City (present-day Tsukuba City) Ibaraki Prefecture.

1983 • Opened the Beijing Office in China.

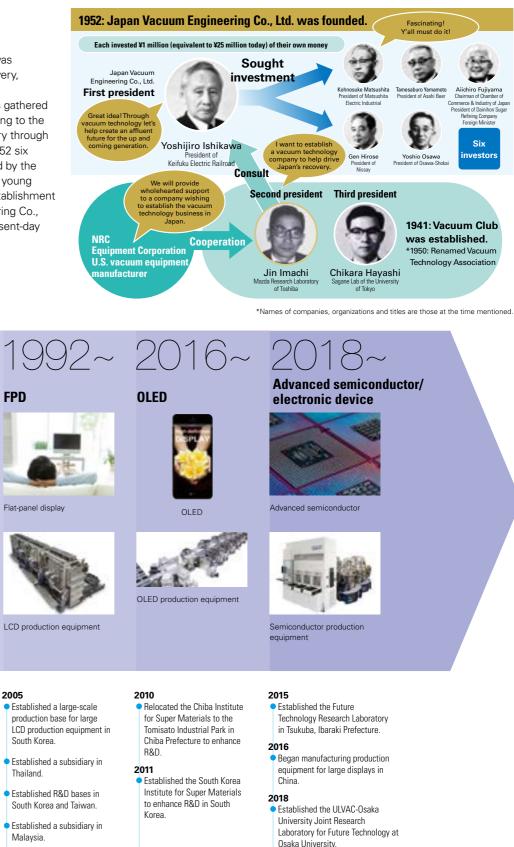
1987 Established ULVAC TOHOKU, Inc. in Aomori Prefecture to strengthen production of large-scale equipment.

1990 Opened the Fuji Susono as a plant dedicated to equipment.

South Korea.



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.













I CD production equipment In-line sputtering equipment

2005

 Established a subsidiary in Malaysia.

South Korea.

Thailand

• Established a production subsidiary for large I CD production equipment in Taiwan.

Established a base in India.





1971



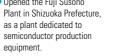




1982



System 731







2001

Discs

support in China.

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



2007



Liquid crystal display Semiconductor

Computer

- - 1995

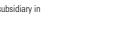
semiconductor production

 Established a vacuum pump production base in China.

Established a subsidiary in



exports.



2002 • Established a subsidiary in

 Established a base for fullscale production and field

to ULVAC, Inc.

Changed the company name













2021

 Opened the ULVAC Advanced Technology Collaborative Research Cluster at Tokyo Institute of Technology

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 %)



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.

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.

Other Asia

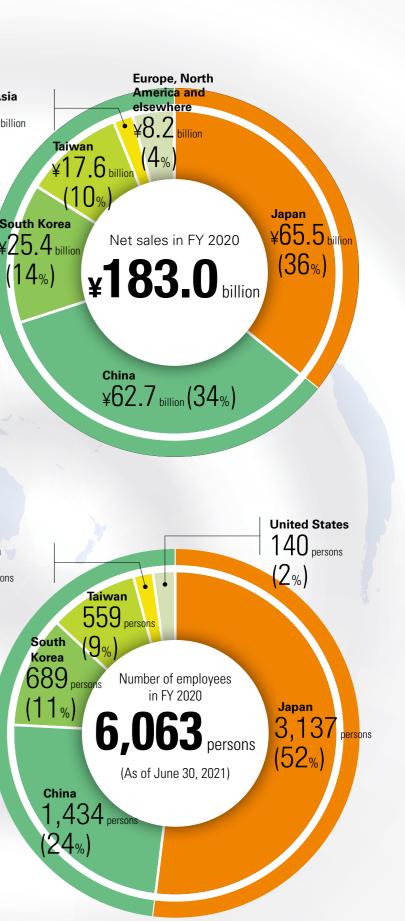
Net sales by region (amount and %)

Ratio of sales

7

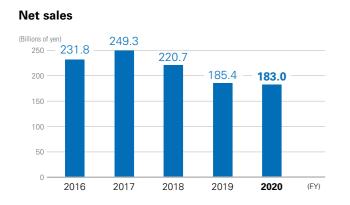
the automobile, pharmaceutical,

and food industries.

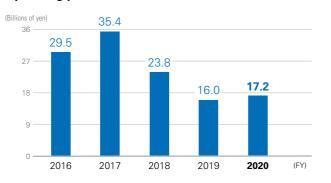


Consolidated Financial and Non-financial Highlights

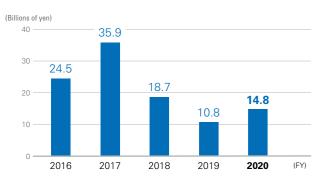
Consolidated Financial Highlights



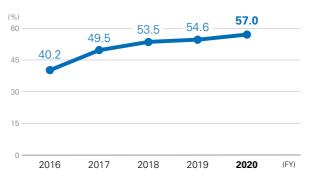
Operating profit



Net income attributable to owners of parent



Equity ratio



Non-financial Highlights

Rate of lost-work-time injuries



*Source for average data for all industries and manufacturing industry: "Survey on Industrial Accidents 2020" 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 that meet industry standards. With "safety first" as the Group's principle, we will work to eliminate occupational accidents.



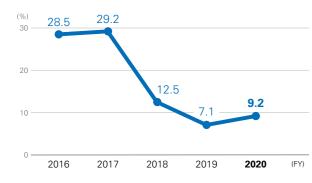
Localization ratio of presidents of overseas subsidiaries



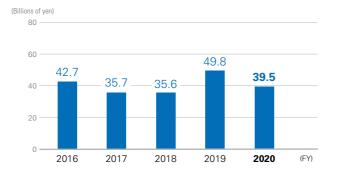
Convinced it is preferable to appoint people of the respective countries and regions to be in charge of management of overseas bases, we have been fostering and promoting local managers and next-generation executives and are promoting assignment of local employees to important positions overseas.



ROE (Return on equity)



Interest-bearing debt

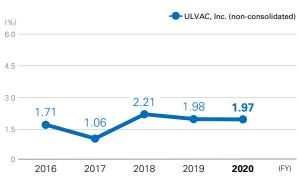


CO₂ emissions



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.55



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.49**

Contributions to local communities

Until January 2020, we vigorously conducted activities designed to encourage young people in the Shonan area, who will lead the next generation, to work and increase their interest in science, by holding vacuum experiment classes and conducting plant tours. However, due to the impact of COVID-19, we are now conducting plant tours for small groups of junior high school and high school students, and accepting inclusive education students for internships.

We have re-examined the way we contribute to local communities during the COVID-19 pandemic, and in partnership with Chigasaki City and Shonantobu General Hospital, we provided the venue and our staff actively supported operation of workplace vaccinations for the 2,300 people including employees of ULVAC Group companies and partner companies and family members who wished to be vaccinated, and group vaccinations for 1,000 citizens of Chigasaki City in June 2021. We will continue to work as one with members of local communities to engage in initiatives to assist safe and secure lifestyles.





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.57

Commitment of Top Management

The Group will accurately capture expanding growth opportunities, while contributing to the resolution of social and environmental issues



Firmly grasping expanding opportunities for growth while resolving social issues

ULVAC has been comprehensively using the vacuum technology and peripheral technologies it has developed since it was founded to boldly face the challenges presented by new technologies as the structure of industries change in areas such as chemicals, pharmaceuticals, and food, metallurgy, semiconductors and electronic devices, and flat-panel displays. By expanding application fields and opening up new markets, we have contributed to the business expansion of client companies and the advancement of industry and science, achieving growth while supporting people's lives with vacuum technology.

The business environment in which ULVAC operates has been undergoing unprecedented change in recent years. The movement toward DX (digital transformation) and ICT (information and communications technology) usage is accelerating, due to factors such as the normalization of remote working, the shift to EVs and the expanded use of AI. At the same time, there is a need for global-level initiatives for decarbonization to respond to global environmental issues. Technological innovation is required to reduce the power consumed by semiconductors and electronic devices, in order to realize a green society.

The realization of such a society is supported by key devices—such as semiconductor memories and logic devices, MEMS/sensors, power devices, displays, etc.—as well as technologies enabling large capacity and low power consumption of semiconductor memories and logic devices, miniaturization and enhanced performance of MEMS/ sensors and power devices, and higher resolution, lower power consumption, increased size and greater flexibility of displays. ULVAC will respond to these needs by leveraging its strengths in vacuum thin film processing technology and fundamental technologies for equipment.

In the past, ULVAC's involvement in the automotive industry was limited in scope through just a handful of devices and technologies. However, with the shift to EVs, many semiconductors and electronic components make up vehicles, and displays are mounted on vehicles as information display devices, therefore it is no overstatement to say that ULVAC is now supporting the automotive industry. Going forward, we will respond to changes in society and industrial structure, and firmly grasp expanding growth opportunities while working with a wide range of stakeholders to contribute to the resolution of social and environmental issues such as building social infrastructure, saving energy and reducing carbon through our business activities.

Steady improvement in profits by expanding orders and enhancing manufacturing capabilities

Market changes and operations in FY 2020 Looking back on FY 2020, uncertainty persisted regarding the future outlook, mainly due to the impact of the continued global spread of COVID-19 and prolonged US-China trade friction. In the semiconductor sector, there were signs of more active investment in advanced equipment by foundries and logic manufacturers, and the recommencement of investment in semiconductor memory. In the electronics sector, there was increasingly vigorous investment aimed at the shift to domestic production in China. Additionally, in the flat-panel display (FPD) sector, an increase in demand for panels led to more active investment in liquid crystal panels, and there was continued investment in response to the shift to organic light-emitting diode (OLED) displays for smartphones and tablets. There were also indications of efforts to develop large substrate mass production for OLED displays to respond to a broad range of applications in tablets, PCs, medical, automotive and game applications.

Reviewing ULVAC's operations, orders received for semiconductor and electronic device production equipment, FPD production equipment, components, industrial equipment and materials all increased. As a result, orders received increased ¥42.3 billion year on year. Net sales decreased year on year due to the impact of lower orders received for FPD production equipment in the previous fiscal year, but sales of semiconductor and electronic device production equipment, industrial equipment, materials and other products increased, and overall consolidated net sales results exceeded the initial plan.

Regarding profit, we proceeded with initiatives to reform technical design, procurement and production as well as strengthen the information system infrastructure as part of our efforts to enhance manufacturing capabilities. Gross profit margin improved from 27.3% in the previous fiscal year to 29.4%, and operating profit margin improved from 8.6% to 9.4%, due to higher productivity and other factors.

As a result, consolidated business results for FY 2020 exceeded the initial targets. Orders received increased 27.0% year on year to ¥198.9 billion, net sales decreased 1.3% to ¥183.0 billion, operating profit increased 7.8% to ¥17.2 billion, ordinary profit decreased 0.5% to ¥18.0 billion, and net income attributable to owners of parent increased 37.7% to ¥14.8 billion. We made progress with initiatives to strengthen the financial base, and the equity ratio improved from 54.6% to 57.0%, while ROE increased from 7.1% to 9.2% from the previous fiscal year.

Commitment of Top Management

Revision of the mid-term management plan targets and investment amounts

Under the mid-term management plan "Breakthrough 2022" (covering the period from FY 2020 to 2022), we will capture the trend of technological innovation for a smart society as a business opportunity, aiming to achieve sustainable growth and high earning capacity while increasing profitability and management efficiency under the basic policies: "Investment in development for growth (selection and concentration)" and "Profit-oriented management through structural change."

Consolidated results targets for the year ending June 30, 2023, the final year of the mid-term management plan, were initially set as "net sales of ¥210.0 billion," "gross profit margin of 35% or above," "operating profit of ¥34.0 billion," "operating profit margin of 16% or above," "ROE of 13% or above" and "operating cash flow of ¥29.0 billion." However, as noted above, investment activity during the year ended June 30, 2021, the first year of the mid-term management plan, was more vigorous than anticipated in each sector, including semiconductors, electronics and FPD, and the expansion in investment is forecast to continue. We have therefore decided to revise our numerical targets upwards, for net sales and operating profit.

We have set a new target of ¥235.0 billion for net sales, in view of the growth led by semiconductor and electronic device production equipment, as well as the expected continuation of strong sales in FPD production equipment. We will also increase the amount of R&D investment over the three years of the mid-term management plan, from the ¥50.0 billion initially planned to ¥65.0 billion, to accelerate



business growth. On this basis, we will target operating profit of ¥38.0 billion.

In the semiconductors sector, active investment in both advanced logic and memory is forecast going forward. According to the semiconductor equipment market outlook published by Semiconductor Equipment and Materials International (SEMI), in 2022, investments in advanced logic and memory are expected to increase to 1.9 times and 1.5 times respectively, compared with 2019. The Group aims for growth exceeding the market growth rate, targeting FY 2022 orders received for semiconductor production equipment equivalent to 4.1 times for logic and 1.6 times for memory, compared with FY 2019.

The electronics sector saw more active investment in production increases for power devices, opticaldevices, communication devices, etc. in Japan, China and Taiwan. In FY 2022, the Group aims to capture orders received for electronic device production equipment equivalent to 1.6 times in Japan, 2.7 times in China and 2.1 times in Taiwan, compared with FY 2019. In China particularly, investment in power devices and optical-devices for AR/VR is expanding rapidly under the government's domestic production policy, and the number of business negotiations involving the Group has increased significantly. We are engaged in strengthening our technical sales capabilities to ensure we capture this demand.

In the FPD sector, large LCD investment is continuing due to an increase in panel demand, and OLED investment is expanding, with the progressive shift to OLED in IT panels for mobile, medical, automotive and other applications. In view of this change, in FY 2022 the Group aims to achieve orders received for FPD production equipment equivalent to 1.7 times, compared with FY 2019.

At the same time, we will strengthen our stable business foundation by expanding the components, materials, and customer support businesses in cooperation with each equipment business.

Regarding R&D investment, we will focus our investment in areas such as increasing joint development related to logic and memory, promoting the modularization of electronic device production equipment and response to the China market, and responding to the shift to larger OLED substrates.

We will also continue to engage in strengthening our manufacturing capabilities, and strive to improve our profit margin.

Through the steady implementation of these initiatives, we will ensure that the Group achieves the goals of the mid-term management plan.

Forecast for the second year of the plan

In FY 2021, the second year of Breakthrough 2022, we forecast an increase in orders received and net sales, amid the progressive expansion of investment related to semiconductors, electronic devices and FPD. The operating profit margin will continue to improve as we proceed with manufacturing reforms.

For FY 2021, on a consolidated basis, we are targeting orders received of ¥230.0 billion (+15.6% year on year), net sales of ¥210.0 billion (+14.7%), operating profit of ¥26.5 billion (+54.1%), ordinary profit of ¥27.0 billion (+50.3%), and net income attributable to owners of parent of ¥18.0 billion (+21.4%). We aim to improve the gross profit margin to 31.9%, the highest level since the Company was listed, and the operating profit margin to 12.6%.

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, ULVAC operates in an industry that undergoes significant changes in capital expenditure trends and technical innovations, and intends to enhance its internal reserves to secure sufficient funds for R&D investments in growth fields and establish a stable financial base.

Taking into account such factors as demand for funds, cash flows, performance, and the payout ratio for each fiscal year, the year-end dividend for FY 2020 was determined to be ¥95 per share.

For shareholder returns from FY 2021, we plan to transition to performance-based profit distribution to enhance transparency for profit return, under a policy targeting a consolidated dividend payout ratio of 30% or more.

Based on this policy, we plan a year-end dividend for FY 2021 of \$110 per share.

To continue creating social value while achieving sustainable growth

With the prolonged impact of COVID-19 and frequent occurrence of climate change disasters worldwide, global values have changed dramatically and awareness of ESG and SDGs has become heightened. We must reaffirm the role required of ULVAC by international society and seek to ensure compatibility between the global environment and the sustainability of ULVAC.

Under such social conditions, we believe it is necessary to further promote responsible

management as a global company, and have signed and participated in the United Nations Global Compact. We support the Ten Principles related to protecting human rights, eliminating unreasonable labor, addressing environmental concerns and preventing corruption, and intend to accelerate activities aimed at their realization to contribute to the realization of a sustainable society.

Furthermore, we recognize that responding to climate change is a pressing global issue, and have set a medium- to long-term goal of reducing greenhouse gas emissions by 40% by 2030 (compared with 2020) and achieving net zero greenhouse gas emissions by 2050. Responding to climate change is one of the most important management issues for ULVAC, and we have begun detailed analysis of business opportunities and risks based on future regulatory trends. We will continue to implement initiatives for compliance with environmental laws and regulations as well as measures aimed at the achievement of targets for reduction of environmental impact and greenhouse gas emissions based on our environmental philosophy and environmental policy, in addition to appropriately disclosing them.

In FY 2019, we launched the Sustainability Promotion Committee and established our Sustainability Policy, and we have also examined key issues (materiality), but the environment surrounding the Group has changed significantly over the past few years. We recognize that it is difficult to become a company able to continue to create value required by society and customers as such uncertainty increases through thinking that is simply an extension of conventional business strategies, and have begun to discuss its vision for 2050. We will establish targets using back-casting based on our view of society in 2050 and create a system for monitoring progress of initiatives.

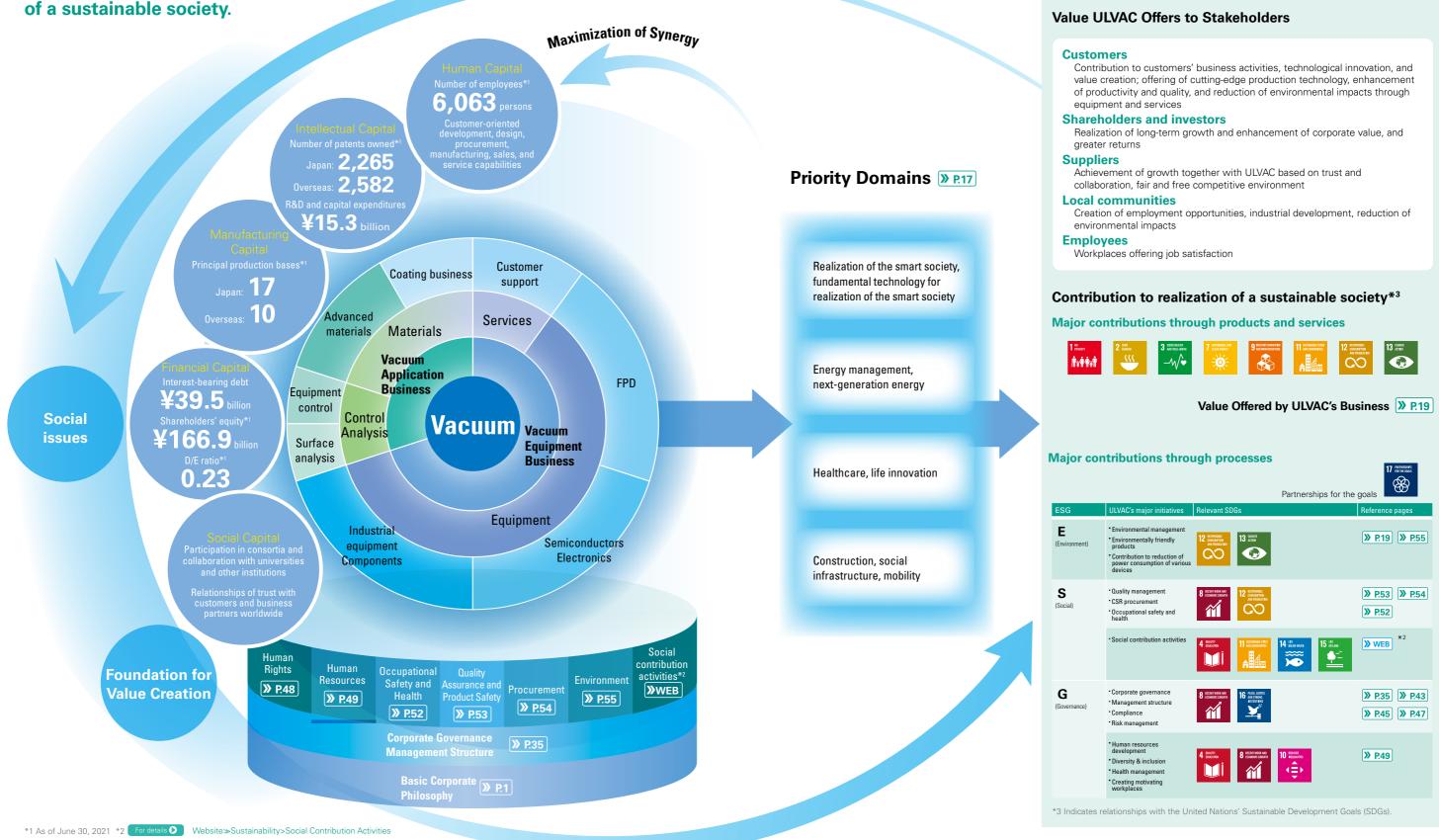
Among sustainability issues, the development of human resources is particularly important. We now think from a global, market, social and customer perspective with a view to the future transcending borders, and must transform the mindset of each employee and our corporate culture to be able to act swiftly.

Furthermore, the Group is combining its strength as one to steadily proceed with the development of the next generation of management to realize sustained growth and the creation of a sustainable society.

We hope our stakeholders look forward to our future value creation, and ask for your continued support in the long term.

ULVAC's Value Creation <Process>

As a comprehensive vacuum product manufacturer, **ULVAC** will contribute to the realization



Value Creation

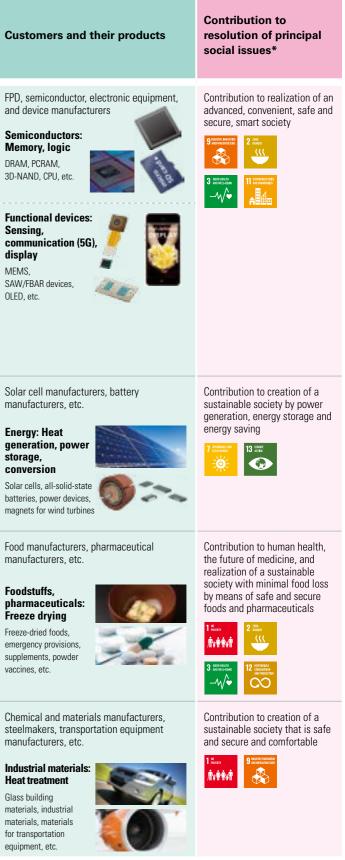
ULVAC's Value Creation <Priority Issues>

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 and fundamental 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.

		ULVAC's business activities							
Social issues	Market opportunities			ULVAC's six businesses				Custon	
Social issues		Priority domains	Semiconductor production equipment Electronic device production equipment	FPD production equipment	Components	Industrial equipment	Materials	Main value offered by the business	Custor
 Progress of the smart society, advances in 5G and IoT, and establishment of network infrastructure 	 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 	Realization of the smart society Autonomous driving, agriculture, healthcare, irtual currency, etc.Image: Strain of the smart society Autonomous of the smart society of the smart society Autonomous of the smart society of the smart	se ≫ P.29 se ≫ P.20	s∞ » » P.31	s		See >> P.34	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	FPD, sen and devi Semico Memory DRAM, PC 3D-NAND Function Sensing commun display MEMS, SAW/FBA OLED, etc.
 Environmental issues, such as global warming and climate change Global energy issues due to dependence on finite resources 	 Progress of renewable and low- carbon energy systems Improvement in energy conversion efficiency 	Energy management, next-generation energy				see ≫ P.33		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	Solar ce manufac Energy: general storage convers Solar cells batteries, magnets f
 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 	• Longer preservation of food and pharmaceuticals, volume reduction	Healthcare, life innovation						Longer life and volume reduction of freeze- dried food, powder vaccines, drugs, etc. by vacuum freeze drying and other technologies	Food ma manufac Foodstu pharma Freeze of Freeze-drie emergency supplemer vaccines, e
 Aging of infrastructure in developed countries Development of industrial infrastructure in emerging countries Wider gap between rich and poor 	• Development of safe, secure and comfortable infrastructure	Construction, social infrastructure, mobility						Enhancement of performance of industrial materials and response to new materials by applying vacuum heat treatment and other technologies	Chemical steelmak manufact Industria Heat trea Glass build materials, materials, for transpor equipment

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

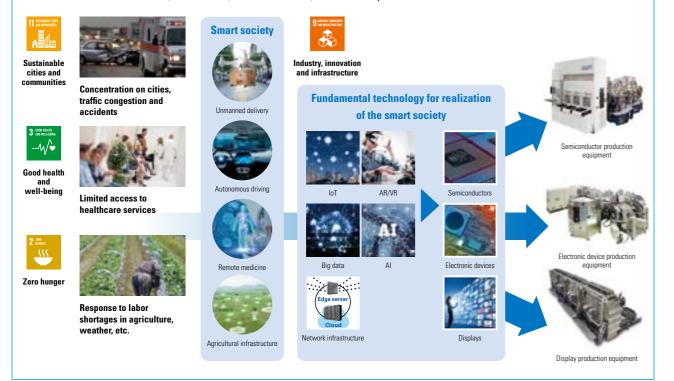


ULVAC's Value Creation <Value Offered by ULVAC's Business>

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

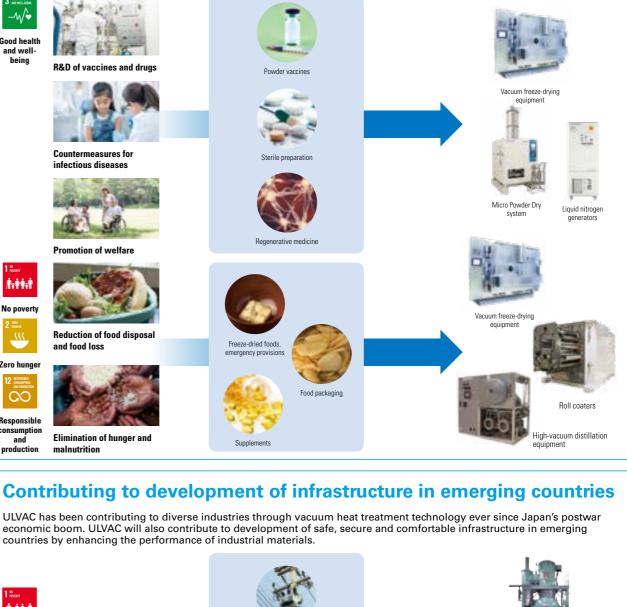
Environmental issues, such as climate change and global warming, and global energy issues due to dependence on finite resources are intensifying. ULVAC will contribute to the creation of a sustainable society by power generation, energy storage and energy saving through enhancement of the performance 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.

Good health and wellbeina





Countermeasures for infectious diseases





tion of welfare



Zero hung

Responsibl

and

and infrastructur

cons

Reduction of food disposal and food loss





Elimination of hunger and production

malnutrition

countries by enhancing the performance of industrial materials.





for substation systems







Vacuum furnace

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 wideranging 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



Established ULVAC Advanced Technology Collaborative Research Cluster at Tokyo Institute of Technology

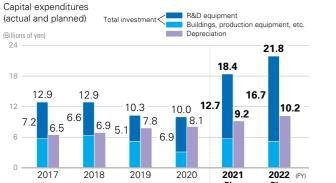
On September 22, 2021, ULVAC, Inc. and Tokyo Institute of Technology (hereinafter the "Tokyo Tech") established the ULVAC Advanced Technology Collaborative Research Cluster (hereinafter the "Collaborative Research Cluster") on the Ookayama Campus of Tokyo Tech. ULVAC and Tokyo Tech have achieved results through individual research cooperation, but to further strengthen the collaboration between the company and the university as organizational partners, we set up the Collaborative Research Cluster with the support of the Tokyo Tech Open Innovation Platform.

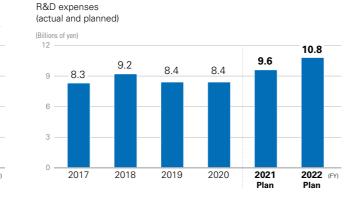
Combining the Tokyo Tech's plasma diagnostics technology and AI technology, the Collaborative Research Cluster aims to improve the performance of plasma processing equipment by measuring plasma conditions that could not be measured before. The synergy created by laboratories from different fields working together is expected to produce new research results that cannot be obtained through individual collaborative research. Additionally, leveraging this organization-toorganization collaboration will lead to a wide range of positive outcomes, not only in joint research but also in fields such as personnel development, leading to the advancement of future growth for both ULVAC and Tokyo Tech.



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

¥65.0 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 mid-term management plan.





Global Network

Networks offering solutions to support industrial development worldwide

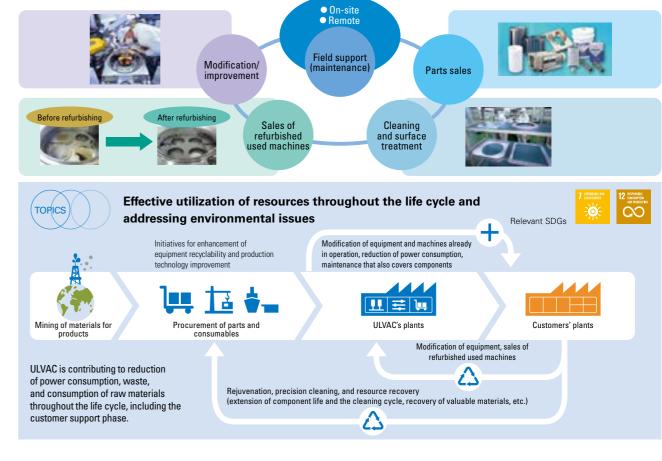
ULVAC has established optimal networks covering development, sales, manufacturing, and services not only for Japan but also for Asia. To spur development by capitalizing on the global development system, ULVAC is promoting joint development with leading companies and research institutions around the world.



Customer Support

ULVAC's customer support solutions pool the Group's know-how

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.



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 P27 Mid-term Management Plan "Enhancing Manufacturing Capabilities" For details Website Support Sales Offices For details Website Support Service Center

ULVAC's Sustainable Management

The foundation of all business activities is the Corporate Philosophy stating our aspiration: "to contribute to the development of industries and science by comprehensively utilizing its vacuum and peripheral technologies." We will work with our partners to pursue cutting-edge technology, and contribute to the creation of a sustainable society with vacuum technology while fulfilling our social responsibility.

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.

Sustainability Policy

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

In 2019, the ULVAC Group established the Sustainability Policy based on its Basic Corporate

Our goal for 2050

A company that utilizes vacuum technology to create value for the world with its partners and continues to contribute to the future of people and the planet

Economic growth and social abundance

Use the latest technological development to contribute to the realization of a safe, secure, affluent and convenient society

Human happiness

Contribute to the creation of a society in which all people can lead happy lives

Environment

Contribute to creation of an environmentally friendly and sustainable society

Key measures for the realization of the goal

Management Policies	Priority Issues
Improve Customer Satisfaction	 Exploration of new markets Further creation of customer value
Innovations in Production Technology	 Improvement of profitability through manufacturing Promotion of DX
Development of Original Products	 Creation of next-generation technology and new business Enhancement of marketing capabilities Strengthening of collaboration
Free and Open-minded Organization	 Creation of a highly dynamic, strong organizational structure Development of organizations and human resources for the expansion of global business
Enhancing Corporate Value	Strengthening of foundation supporting value creation

In the future, we will establish targets using back-casting based on our view of society in 2050, and create a system for monitoring progress.

Promotion Structure

Sustainability Promotion Committee

Meetings of the Sustainability Promotion Committee (the Management Planning Department acts as the office for the Committee) chaired by the Executive Officer in charge of sustainability and attended by internal directors and managers of relevant departments are held twice annually to promote sustainability management.

The committee formulates policies, discusses and decides important matters, checks and evaluates progress of key initiatives, and gives instructions to various meeting bodies and divisions as needed. Furthermore, progress is reported to the Board of Directors, which deliberates and makes management decisions when significant issues arise.

CSR Committee

Meetings of the CSR Committee chaired by the Executive Officer in charge of sustainability and attended by the personnel responsible in key divisions, production sites and Group companies are held twice annually. The committee shares and discusses responses concerning action for meeting customers' requirements and complying with RBA* standards within corporate social responsibility. Furthermore, the Board of Executive Officers deliberates and reports when significant issues arise.

*Responsible Business Alliance. CSR promotion group focused on the electronics industry in global supply chains

Global Environmental Management Committee

Meetings of the Global Environmental Management Committee chaired by the Executive Officer in charge of the environment and attended by environmental managers of Group companies are held twice annually. The committee sets targets for each Group company, monitors progress, takes action to ensure targets are reached, and reports to the Board of Executive Officers.

Involvement with External Initiatives

Signing the United Nations Global Compact

In September 2021, ULVAC agreed to and became a signatory to the United Nations Global Compact, supporting the Ten Principles related to protecting human rights, eliminating unreasonable labor, addressing environmental concerns and preventing corruption set forth therein. Based on its Basic Corporate Philosophy and Sustainability Policy, ULVAC has been working for some time to realize a safer, secure and affluent society through the provision of value brought about by vacuum technology, which is a fundamental technology that is indispensable for people's lifestyles. With this signing, we will adhere to and implement the Ten Principles of the United Nations Global Compact, further promote responsible management as a global company, and continue to contribute to the resolution of major social and environmental issues with our customers.

Initiatives aimed at SDGs (Sustainable Development Goals)

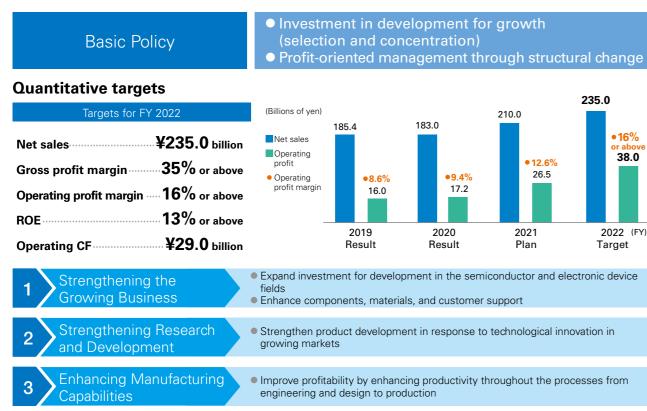
SDGs are common global goals for 2030 that were unanimously adopted at the 2015 United Nations Sustainable Development Summit. ULVAC will contribute to the achievement of Sustainable Development Goals (SDGs) and the realization of a sustainable society through the promotion of key initiatives for the realization of the Company's vision.



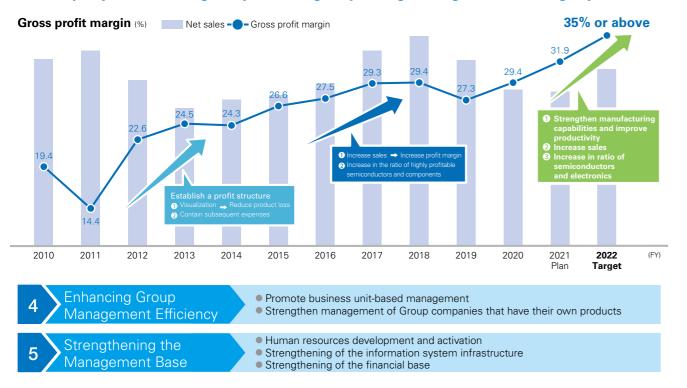


Mid-term Management Plan: Breakthrough 2022

Under the mid-term management plan "Breakthrough 2022" (covering the period from FY 2020 to FY 2022) currently being implemented, we set consolidated results targets for the final year at net sales of ¥210.0 billion and operating profit of ¥34.0 billion. However, backed by strong market conditions, the ULVAC Group is aiming for further growth, and has revised the targets for the final year (FY 2022) to be net sales of ¥235.0 billion and operating profit of ¥38.0 billion.



• Steady improvement in gross profit margin by strengthening manufacturing capabilities



Progress

Under the current mid-term management plan, we apprehend the trend of technological innovation for a smart society as a business opportunity leading to the resolution of social issues, and have engaged in a variety of measures based on the basic policies: "Investment in development for growth (selection and concentration)" and "Profit-oriented management through structural change." In FY 2020, the first fiscal year of the plan, net sales, operating profit, ordinary profit and net income exceeded the plan. This is due to more active logic and memory investment, electronics investment based on China's domestic production policy and FPD-related

		under the mid-term agement plan	Results and progress		
	Semiconductor	New entry into the logic miniaturization process, resumption of memory investment and entry into new processes	Aggressive investment plans for both logic and memory. Opportunities to enter other processes increased through entry into logic, and orders received increased.		
 Strengthening the Growing Business Strengthening Research and Development 	Electronics	Expansion of proposed equipment through modularization, strengthening development, sales and support systems in China	Increase in orders received mainly in Japan and China due to more active investment in areas such as power, optics and communication devices. Release of the uGmni Series, combined deposition and etch modules' system of cluster type to equip with a variety of different process modules on the same transfer core.		
	FPD	Development for mass production of large- substrate OLEDs and transition to a profitable structure	Steady increase of orders received and enhanced manufacturing capabilities through continued investment in LCDs and continued investment in small and medium OLEDs.		
3 Enhancing Manufacturing Capabilities	Enhancing productivity and improving profitability through comprehensive reform of engineering and design, procurement and production		Steady implementation of measures for engineering and design, procurement, production processes and information system reform. Steady improvement of profit margin.		
4 Enhancing Group Management Efficiency	Promoting busine management and management of (have their own pr	strengthening Group companies that	Integration of four Group companies in South Korea and promotion of management reform		
5 Strengthening the Management Base	revitalization Strengthening system infrastr	ces development and of the information ructure of the financial base	 Introduction of new personnel system and development of next-generation leaders Maintenance and implementation of systems to improve productivity ROE: Increased from 7.1% to 9.2% Equity ratio increased to 57.0% 		

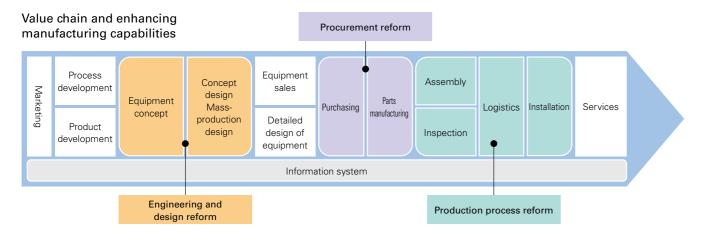
investment to meet increased panel demand, and we believe that semiconductor, electronic device and FPD demand will continue to increase in future.

There is no change in the basic policy of the midterm management plan, but we have revised the targets upwards for net sales to be ¥235.0 billion and operating profit to be ¥38.0 billion in the final year of the plan (FY 2022). Due to the expected increase in investment in semiconductors, electronics and FPDs, we increased research and development investment for technological innovation by ¥15.0 billion.

Mid-term Management Plan: Breakthrough 2022 — Enhancing Manufacturing Capabilities —

ULVAC is engaged in promoting comprehensive reform of processes including engineering and design, procurement and production processes in order to significantly improve its profit margin through the "strengthening of manufacturing capabilities" set forth in the mid-term management plan.

For technical design reform, as device cost is determined in the design phase, measures are taken to accurately ascertain the required specifications of the customer and improve the completeness of technical drawings. With respect to procurement reform, we will integrate procurement organizations and rebuild the global supply chain to reduce procurement costs of materials that account for a large portion of variable expenses. For production process reform, we have implemented activities for more efficient operation at manufacturing sites by concentrating production bases and increasing productivity of manufacturing sites, in addition to conducting manufacturing education required for new ways of thinking and working.



Engineering and Design Reform

The cost and quality of equipment are mainly determined in the engineering and design phase. The efforts of upstream divisions are very important in manufacturing, and we conduct reforms with an awareness of changing equipment concepts from tacit knowledge to explicit knowledge.

With regard to engineering reforms, we are engaged in standardizing, optimizing and clarifying equipment specifications, improving the guality of technical materials and upgrading manufacturing quality.

Procurement Reform

In procurement reform, we have established the policy of "realizing globally optimized procurement" and are integrating procurement organizations to carry out efficient operations in part procurement that accounts for a large portion of variable expenses. In pursuit of optimal procurement costs for each part, we have changed the method of operating from a system in which a personnel is responsible for each piece of equipment to a system in which a personnel is responsible for each part. Furthermore, we will rebuild the global supply chain while strengthening coordination

With regard to design reforms, we have incorporated "modular design" and are promoting the sharing and standardization of manufacturing. Furthermore, we are conducting VE (value engineering) education and incorporating the approach of customer perspectives into design with the aim of realizing manufacturing that provides satisfaction to customers.

with overseas group companies, actively make efforts to procure quality products from best suppliers at low cost and ultimately reduce procurement cost. From the perspective of parts processing, we are focusing on improvement proposal activities such as proposals of optimal configurations for design divisions, proposal of alternative parts and reviewing manufacturing methods of processed parts through collaboration with suppliers. We will establish these reform activities to enhance our manufacturing capabilities.

Production Process Reform

We are implementing production process reform along the two tracks of "specialization of production sites" and "improvement of manufacturing productivity."

In the "specialization of production sites," although we use to manufacture a single model at multiple production sites, we will reorganize them by consolidating and specializing production while monitoring market trends. Having production sites specialize in certain specified models will dramatically improve production technology, improve the efficiency of production processes, enhance quality and reduce costs.

Quality Assurance

Enhancing manufacturing capabilities is made possible by the foundation of quality and safety of ULVAC products. From the perspective of guality assurance, we have revised our policy by rebuilding the manufacturing policy with the aim of enhancing manufacturing quality.

Quality Policy

Improve quality, and reduce costs and lead time to half

Maximize profits and customer satisfaction

Summary

We are seeing enhanced productivity and a solid improvement in profitability, thanks to the steady implementation of various measures towards comprehensive reform. Through such efforts, we will build manufacturing capabilities that create value, provide value to customers and are resilient to changes in the environment. In addition, we aim to further strengthen our profitability not affected by the external environment.

In future, we will further enhance the ability to create value using the approach of the customer's perspective, share and standardize manufacturing, optimize procurement and also specialize production sites and increase manufacturing productivity to optimize manufacturing costs. Furthermore, we aim to reduce costs not only in manufacturing divisions but also throughout the Company by enhancing quality control in the broad sense.

Furthermore, "improvement of manufacturing productivity" is also being implemented in parallel. In the area of equipment manufacturing, each production site sets timely targets for indicators that are greatly involved in manufacturing, such as production manhours and lead time. We are making company-wide efforts to address the challenge while monitoring the trends of such indicators.

Based on this policy, we have defined all costs and time not creating value from a customer perspective as "non-conformity in a broad sense" or "COPQ (Cost Of Poor Quality)" and begun efforts to control this.

In FY 2020, we established and began operation of a database system for integrally managing information on non-conformity in the manufacturing phase. Going forward, we will create a system for analyzing work costs to make them more transparent. In addition, we will utilize data and conduct repeated analysis of information to measure the results of manufacturing reform, leading to further improvements.

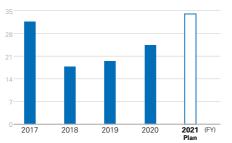
Vacuum Equipment Business 12

Semiconductor & Electronics **Equipment Division**

Semiconductor Production Equipment

We aim to achieve continued growth through the creation of new products and acquisition of customers. We aspire to expand our market share by concentrating resources on major customers and key regions on site and on time.

As company-wide investment in development in the semiconductor field expands, we will establish a project system to ensure that investments lead to positive results, and proceed with efforts aimed at expansion of scale.



Orders received (Billions of yen)

Tetsuya Shimada Managing Executive Officer

General Manager of Semiconductor & Electronics Equipment Division

Review of FY 2020

There were active movements in the semiconductor industry, such as investments by companies in response to the global shortage of semiconductors, and moves by countries to accelerate domestic production due to the US-China trade friction. Due in part to this, orders received were strong in the second half of FY 2020, enabling us to achieve our targets. We began initiatives to establish a development system for major customers, increase orders received and bolster our market share with the aim of expanding the semiconductor business, which is our company-wide policy.

Furthermore, we have built a mass-production system with a view to future expansion of orders received and revised our procurement mechanisms to lay the foundation for business growth.

Medium- to long-term outlook of the market environment

The evolution and growth of semiconductor devices will continue with the expansion of data processing devices such as equipment, servers, and edge computing that accompany the increase of information communication and networks such as IoT, AI, and 5G. In particular, demand for cutting-edge devices in memory and logic is rising. The development and production of these devices requires not only the technology of device manufacturers, but also the advanced technology of equipment manufacturers, and so the semiconductor production equipment market is expected to undergo further growth over the medium to long term. In addition, due to the impact of the US-China trade friction, semiconductor production bases are beginning to be dispersed globally, which is expected to create new business opportunities.

Medium- to long-term initiatives

The main battleground of ULVAC's semiconductor business is the leading-edge device market. As we have entered the market catering to not only existing memory customers but also logic and foundry customers leading the market, we now have a foundation on which we can expect growth in both memory and logic. We are now conducting numerous joint development and evaluation projects with important strategic customers, and will enhance support for strategic customers even more to increase the number of process steps and products to acquire.

Based on ULVAC's unique business growth strategy, we will continue to expand our business and develop products that are not available from major competing solution manufacturers to support cutting-edge devices.

Recognized Business Opportunities

- 1. Expansion of mass production of leading-edge 5-3 nm logic devices and development of 2 nm or less
- 2. Investment in mass production of leading-edge DRAM and 3D-NAND products, and new processes and change in materials
- 3. Expansion of wafer level package deposition process

4. Acquisition of new customers spilling over from results in important strategic customers

Conceivable Risks

1. Intensifying of competition

- 2. Change in the semiconductor business structure due to the impact of U.S.-China trade friction
- **3.** Delay in new generation device development and application to (investment in) mass production
- 4. Delay in expansion of the new memory market such as PCRAM
- 5. Longer delivery times in the supply chain associate with market conditions and the semiconductor chip shortage

Measures for Reducing Risks and Maximizing Opportunities

- 1. Develop products by embracing customer requirements through precise marketing and develop differentiation technology
- 2. Promote joint development with important strategic customers leading the market
- 3. Strengthen support for development and mass production of leading-edge devices
- 4. Support for development and mass-production launch by new customers
- 5. Provide thorough support to customers that manufacture new types of memory such as PCRAM and maintain 100% market share
- 6. Precise supply chain management (procurement and inventory management)

2 Electronic Device Production Equipment

Growth of the electronic device market for the realization of a smart society is not stopping. In China, investments are being actively made in areas related to semiconductors and electronic devices.

Furthermore, although demand for electronic devices has risen due to the trend of stay-at-home consumption arising from COVID-19, there has been a global shortage of semiconductor and power devices.

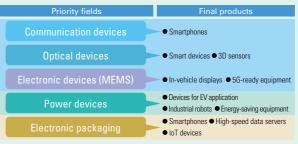
Such circumstances are increasingly bolstering the expansion of the electronic device market, presenting an opportunity for business expansion and growth.

Review of FY 2020

The heightened demand for electronic and telecommunications equipment caused by the impact of COVID-19, and the expansion of the electronic device market due in part to promotion of EVs have led to a rise in equipment and service business opportunities and an increase in orders received in the Japanese market and China. As a result, annual targets were achieved.

ULVAC's advanced electronics equipment business has a wide variety of product lines. We have standardized equipment to increase manufacturing efficiency with an eye to future market expansion, and released the uGmni Series of complex modular equipment capable of being equipped with a variety of modules on the same transfer core.

Priority fields



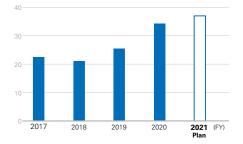
Medium- to long-term outlook of the market environment

Due to the continued creation of new devices and emergence of manufacturing methods for the realization of a smart society in various regions worldwide, it is necessary to continue providing equipment with market needs. In addition, as China continues to invest more in and ramp up domestic production of electronic device-related products, we need to capture the market by differentiating our technology from our Chinese competitors and optimizing our production.

Medium- to long-term initiatives

We are enhancing competitiveness through value engineering and consolidating our diverse product groups. While further promoting the modularization of production equipment, we will work to strengthen our line-up through the development of new products such as organic evaporation equipment for wafers and ion milling equipment. As for device manufacturing, we will further promote manufacturing reforms and maximize productivity

Orders received (Billions of yen)



while continuing to accumulate the necessary technology and establish production bases.

Furthermore, in an effort to further strengthen orders received in the Chinese market where investment is becoming increasingly active, we have strengthened our technical sales capabilities by dispatching engineers. In North America, we will assign sales personnel to Silicon Valley to investigate the latest technology trends, monitor trends such as those in major platformers, and search for seeds leading to electronics business.

Recognized Business Opportunities

- 1. Expansion of Chinese electronic device market
- 2. Evolution of devices for realization of a smart society
- 3. Spread of EVs for realization of carbon neutrality
- 4. Expansion of the electronic device market due to remote work and stay-at-home demand

Conceivable Risks

- **1.** Rapid growth of Chinese competitors
- **2.** Longer delivery times in the supply chain
- **3.** Expansion of restrictions on exports and other issues due to the impact of U.S.-China trade friction
- 4. Continued travel restrictions due to COVID-19

Measures for Reducing Risks and Maximizing Opportunities

- 1. Establish product groups capturing market and regional characteristics (equipment for the Chinese market, switching production countries, etc.)
- 2. Increase orders received through a technology differentiation strategy and the launch of new models
- **3.** Secure the necessary parts through planned advance arrangements
- 4. Strengthen sales skills of Group companies in China
- 5. Enhance manufacturing productivity through deeper manufacturing reforms

Vacuum Equipment Business 3

FPD Production Equipment

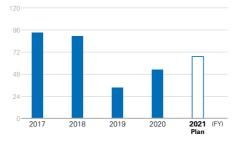


Amid the prolonged COVID-19 global pandemic, it is expected that flat panel display (FPD) demand will rise and that its importance as an interface connecting people with information and communications technology will further increase in the realization of a smart society. Due to such changes in the social environment, the market environment has recently undergone a positive shift. We will endeavor to seize opportunities to make great leaps in our business.

Yasuo Shimizu Executive Officer.

General Manager of FPD Division





Review of FY 2020

FPD-related investment became more active with the increase in panel demand thanks in part to the stay-athome demand related to COVID-19. Orders received increased year on year due to continued investment in large LCDs mainly in China, in addition to more active investment in organic light-emitting diode (OLED) displays for smartphones and tablets. Although net sales decreased year on year affected by the market slump in the previous year, the profit margin was significantly improved by strengthening manufacturing capabilities and other initiatives.

Medium- to long-term outlook of the market environment

Demand for FPDs is expected to remain strong in an environment where remote work is becoming the norm, the shift to EVs is accelerating, and the use of Al is expanding. In addition, due to higher resolution of mobile devices and tablets as well as the advances made to make OLED displays lighter and thinner, applications will expand in areas such as medical, automotive and game IT panels in the future, and the expansion of investment in the display market is predicted to continue.

Medium- to long-term initiatives

As the positive market environment is expected to continue, we will strive to maintain our leading market share by strengthening the competitiveness of our mainstay products in the area of large-scale LCD production equipment. In addition, we will increase R&D investment for technological innovation and develop and sell massproduction equipment for large-substrate OLEDs leveraging our strengths in the core technologies of large-substrate transfer technology and high-definition support.

We will also utilize the fundamental technologies cultivated in displays to engage in product development of compact, high-capacity products for automotive batteries, a market that is expected to expand in the future.

Recognized Business Opportunities

- 1. Increased demand for 65-inch and 75-inch large panels
- 2. Larger display substrates supporting the use of OLED in IT products
- 3. Increased demand for lithium-ion batteries due to the acceleration of the shift to EVs

Conceivable Risks

- 1. Sudden decline in demand for display due to a rebound from the increase in stay-at-home demand
- 2. Disruption and restriction of supply chains due to security issues
- 3. Delay in the shift and adaption to next-generation technology
- 4. Declines in sales prices and profit due to price competition
- 5. Longer delivery times in the supply chain

Measures for Reducing Risks and Maximizing Opportunities

- 1. Strengthen marketing (particularly in OLED and lithium-ion battery markets)
- 2. Jointly develop advanced technology with leading companies
- **3.** Further improve production efficiency by enhancing manufacturing capabilities
- 4. Redevelop and strengthen structure of global supply chain

Vacuum Equipment Business 4

Components



The main markets of FPDs, semiconductor and electronic devices, automobiles and home appliances are expected to further expand and recover.

To ensure we do not miss this opportunity, we will utilize our global sales, development and production systems to become more competitive and expand our business.

Ju Hoon Shin Executive Officer, General Manager of Components Division

Review of FY 2020

Difficulties continued due to the impact of COVID-19 in the first half of FY 2020, but there was a recovery in the second half of FY 2020, resulting in net sales picking up to the targeted level.

In sales, we revised our global sales structure and promoted education and communication between sales offices. In production, we engaged in initiatives aimed at quality control and improvement of productivity, such as the sharing of production technology and information between production bases and the optimization of items produced in order to improve profitability.

Medium- to long-term outlook of the market environment

It is expected that the recovery that has already begun in the FPD market and automotive market will continue and that semiconductor and electronic device-related demand will expand. Furthermore, new areas expected to grow in existing markets, such as EVs in the automotive market, are also becoming more active.

Medium- to long-term initiatives

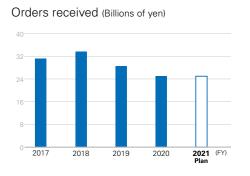
We have started integrated reform of product development, production and sales in the vacuum pumps business, and will aim to improve profitability through further implementation of these. By optimizing the roles of development, production and sales between sites, we will create highly competitive products not only in existing markets but also for new markets and applications.

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.





11 2

At the same time, we are strengthening alliances and will build a structure capable of providing appropriate solutions to meet a variety of demands from the market.

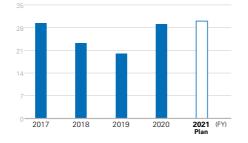


Vacuum Equipment Business 5

Industrial Equipment

ULVAC's industrial equipment business is engaged in expansion of sales and equipment development of vacuum heat treatment equipment for brazing used in heat exchangers and vacuum melting furnace equipment for magnet materials making up motors used in EVs and generators overseas (mainly in China). Furthermore, in Japan, we are engaged in sales and development of vacuum freeze-drying equipment used for vaccines, nucleic acid medicine, biopharmaceuticals and generic drugs.

Orders received (Billions of yen)



Review of FY 2020

The production of vacuum heat treatment equipment and vacuum melting furnace equipment has been fully transferred to China, and mass production has begun. This has enabled the timely provision of optimal equipment to the Chinese magnet industry undergoing active investment, leading to an increase in orders received. At the same time, importing the equipment manufactured in China to Japan has enabled us to use the existing domestic service network while lowering equipment prices.

With vacuum freeze-drying equipment, we have supported the large-scale investments made by domestic pharmaceutical manufacturers, and also started the renewal of existing small and medium-sized equipment with an eye to medium- to long-term customer requirements.

Medium- to long-term outlook of the market environment

In response to the global trend of aiming to become carbon neutral, demand for EVs and energy business such as wind power generation and power storage is expected to increase more and more in China.

The growth of the pharmaceutical market is impressive. At the same time, there have also been changes such as the shift from small molecule drugs to polymeric drugs, in addition to the use of cells in pharmaceuticals and the acceleration of approval of pharmaceuticals recently seen with COVID-19 vaccines. These trends are expected to require not only equipment safety but also a high level of product stability.

Medium- to long-term initiatives

In Chinese bases, we will strengthen technology, design, procurement and manufacturing, improve safety and quality, and also follow activities in China requiring speed.

We will work to strengthen support for vacuum freezedrying equipment by providing systems also including part of the preceding and subsequent processes particularly in the sterile preparation market.

Furthermore, in order to support the supply of large volumes of low-cost products required for generic pharmaceuticals, we will provide solutions including proposals on the improvement of customers' vacuum freeze-drying processes.

Recognized Business Opportunities

- 1. Large-scale investments in the magnet industry in response to the mass production of EVs by Chinese and Japanese manufacturers
- 2. Needs for stabilization of drug formulations using vacuum freeze-drying associated with the increased difficulty of the manufacturing process caused by the shift toward polymeric pharmaceuticals
- 3. Major pharmaceutical manufacturers' requirements for higher formulation standards
- 4. Heightened demand for energy business such as wind power generation and power storage

Conceivable Risks

- 1. Expansion of export restrictions on equipment produced in China due to the impact of U.S.-China trade friction
- **2**. Shift of production overseas by domestic pharmaceutical companies
- 3. Intensifying competition among Chinese EV companies, revision of subsidy system

Measures for Reducing Risks and Maximizing Opportunities

1. Promote joint development by industry, government and academia for the improvement of performance and new functions of equipment for magnets

- 2. Cultivate opportunities for winning new orders related to energy
- 3. Prepare for overseas expansion of vacuum freezedrying equipment (response to laws and regulations on pharmaceuticals unique to each country)
- 4. 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.

As our main business, we produce thin-film materials (mainly sputtering targets) used in the deposition process for semiconductors, electronic devices and displays centered on powder metallurgy and metallurgy technologies that we have long cultivated, and supply them to customers.

Review of FY 2020

Orders received in the semiconductor field such as power devices decreased due to the impact of COVID-19 in the first half of FY 2020, but recovered in the second half of FY 2020 due to a recovery in the semiconductor market and the boom in the display market. Sales of IGZO* target materials, which are strategic products, increased in line with the expansion of the OLED market, and we maintained a high market share. In China, the largest display market, sales of materials for cutting-edge displays such as LTPS and OLED continued to grow from FY 2019.

We also made preparations for business expansion by strengthening the development structure and executing capital investment in semiconductor target materials production lines at Chinese production bases with the aim of full-scale entry into the semiconductor market.

*A transparent oxide semiconductor made up of In (indium), Ga (gallium), (Zn) (zinc) and O (oxygen), which enables low power consumption and high definition.

Medium- to long-term outlook of the market environment

Based on the forecast of medium- to long-term market growth in the semiconductor and electronic device, and the display fields, demand for thin-film materials such as wiring and semiconductor layers incorporated into these devices, and new materials for realizing higher device performance is forecast to inevitably increase.

Medium- to long-term initiatives

We will accelerate development of competitive new materials, and also promote the improvement of production technologies and production efficiency at each base. Furthermore, we will increase mass-production products at the production lines for semiconductor target materials introduced in Chinese production bases, and conduct business globally centered on China, where the semiconductor market is growing rapidly.

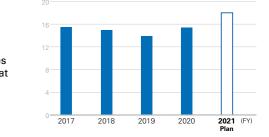
Vacuum Application Business

Other

Semiconductor/FPD 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).





Recognized Business Opportunities 1. Increased demand for thin-film materials (sputtering targets) associated with the ongoing spread of smart devices 2. Investment in mass production lines by leadingedge semiconductor device manufacturers 3. Switching to new materials in line with the trend toward higher-definition and diversification of display panels 4. Rapid growth of the semiconductor market in China Conceivable Risks **1.** Intensifying price competition 2. Delay in application to mass production of products for the semiconductor market **3.** Restrictions on exports for security reasons, and supply chain interruption Measures for Reducing Risks and Maximizing Opportunities 1. Promote joint development with leading manufacturers 2. Strengthen marketing activities and networks in each base **3.** Strengthen production technology and enhance production efficiency 4. Promote alliances with partner companies

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.

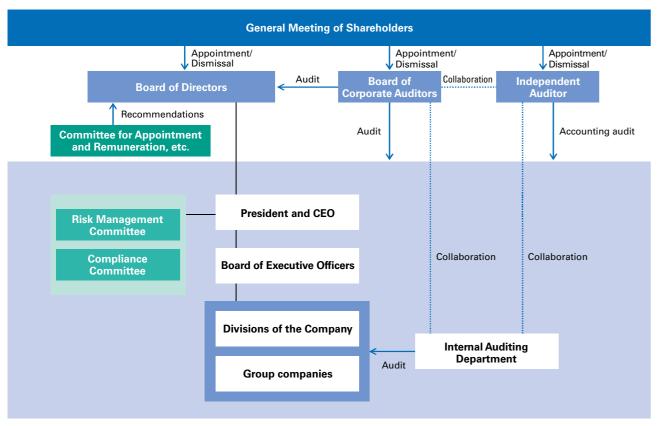
ULVAC, Inc. has adopted a company with a board of corporate auditors as its management structure. Particularly important institutional structures include the Board of Directors, the Board of Executive Officers, the Board of Corporate Auditors, and the Committee for Appointment and Remuneration, etc.

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 seven 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 14 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

Corporate Governance Structure (As of September 30, 2021)



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 Department 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 Department 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.

Composition of Key Organizations in FY 2021

Title	Name	Board of Dire
President and Chief Executive Officer	Setsuo Iwashita	•
Director and Executive Vice President	Mitsuru Motoyoshi	٠
Senior Managing Director	Dr. Choong Ryul Paik	٠
External Director	Hiroyuki Nishi	٠
External Director	Norio Uchida	٠
External Director	Dr. Kozo Ishida	٠
External Director	Yoshimi Nakajima	٠
Auditor	Makoto Ito	٠
Auditor	Mitsuru Yahagi	٠
External Auditor	Senshu Asada	٠
External Auditor	Isao Utsunomiya	٠

Chairperson Chairperson Observer

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

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 one is an internal director, four are external directors (three of whom are independent external directors), and two are independent external auditors. The Committee is chaired by External Director Yoshimi Nakajima. 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

Directors' remuneration

A resolution on the policy on determining the content of individual remuneration, etc. of directors was passed in the meeting of the Board of Directors held on February 12, 2021. ULVAC's policy on determining the content of individual remuneration, etc. of directors is that the determination of remuneration of each director should take into consideration the responsibility of each director for not only the Company's non-consolidated business results for a single fiscal year, but also for the sustainable enhancement of the corporate value of the ULVAC Group. Multiple remuneration elements are evaluated in combination as described below to appropriately reflect their contributions according to their respective responsibilities to ensure the remuneration, etc. of each director is at an objectively appropriate level.

When determining the specific remuneration for individual directors, the Committee for Appointment and Remuneration, etc., which consists of external directors, external auditors, and the chairman of the Board of Directors and was established in order to ensure management transparency, fairness, and appropriateness of remuneration, etc., analyzes the level of remuneration at other companies of the same size and industry, etc. as ULVAC. The Committee then evaluates and verifies the aforementioned responsibilities and contributions of individual directors from various perspectives, examines the remuneration, etc. of each director to ensure that it is at an appropriate level, and submits recommendations to the Board of Directors. Based on these recommendations, the amounts of remuneration, etc. of individual 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.

The remuneration, etc., of internal directors will reflect not only the appropriate supervisory function of the Company's overall management, but also multifaceted evaluations such as internal directors' responsibility for the Company's non-consolidated performance for a single fiscal year, their responsibility for the sustainable enhancement of the corporate value of the ULVAC Group, and the degree of contribution of their responsibility according to the respective positions. For this purpose, the remuneration is made up of base remuneration as fixed remuneration paid in a fixed amount every month, annual performance-linked compensation (officer bonus) linked to the business results for the corresponding fiscal year and stock-based remuneration, etc. through a Board Benefit Trust (BBT) that is a stock-based remuneration plan determined according to the degree of achievement of annual performance targets. In contrast, from the perspective of conducting appropriate supervision of the Company's management as a whole from a fair viewpoint, external directors' remuneration consists only of basic remuneration, which is fixed remuneration.

Resolutions of the Board of Directors on remuneration, etc. of directors are determined within the extent of the maximum amount of aggregate remuneration for directors set at ¥500 million per annum (including a maximum of ¥90 million for external directors) by resolution at the 117th Ordinary General Meeting of Shareholders held on September 29, 2021. For internal directors, remuneration, etc. through a Board Benefit Trust (BBT), which was resolved at the 112th Ordinary General Meeting of Shareholders held on September 29, 2016, is also granted as performancelinked remuneration not included in the relevant remuneration limit.

Moreover, the officer retirement benefits system was abolished at ULVAC by resolution at the Ordinary General Meeting of Shareholders held on September 28, 2006.

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 2020, it is judged that effectiveness of the Company's Board of Directors is secured. However, proposals such as ongoing examination of management strategy and the mid-term management plan as well as enhancement of discussion on risk management have been submitted, and we will continue to strive to enhance the effectiveness of the Board of Directors with consideration for these proposals.

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.

Principal activities of external directors and auditors in FY 2020

Name of external director/auditor	Reasons for selection as an external director/auditor	Attendan
Hiroyuki Nishi	To receive valuable opinions based on his extensive experience and broad perspective particularly centered on risk management	Attended and provid his extens companie
Norio Uchida	To receive valuable opinions based on his extensive experience and broad perspective particularly centered on international sales activities	Attended and provid his extens companie
Dr. Kozo Ishida	To receive valuable opinions based on his extensive experience and broad perspective particularly centered on research and development	Attended the fiscal based on of other c
Yoshimi Nakajima	To receive valuable opinions based on her extensive experience and broad perspective particularly centered on international sales activities	Attended and provid her extens companie
Senshu Asada	To receive valuable opinions based on his experience and specialized knowledge as an attorney	Attended Board of 0 deliberation an attorne
Isao Utsunomiya	To receive valuable opinions based on his experience and specialized knowledge as a certified public tax accountant	Attended Board of 0 deliberation

Initiatives to ensure effectiveness of audit

Meetings of the Board of Corporate Auditors of the Company were held 19 times in FY 2020 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 Department, and the Independent Auditor on wide-ranging matters such as compliance and the situation concerning design of internal control. ULVAC ensures that auditors are provided with information necessary for auditing and that they attend necessary meetings from the perspective of ensuring the acquisition of such information.

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.

Newly appointed external directors receive explanations about management strategy, financial standing, management issues and other important matters, and are given opportunities to acquire knowledge and insight through tours, etc. of business sites for the purpose of deeper understanding of the ULVAC Group.

For newly appointed auditors, ULVAC, Inc. provides training opportunities on a par with those for newly appointed directors upon the request of auditors. After

e and principal activities

I all 14 meetings of the Board of Directors held during the fiscal year ided opinions for deliberation of the agenda as necessary, based on nsive experience and advanced insight as a corporate manager of other es both in Japan and overseas

all 14 meetings of the Board of Directors held during the fiscal year ided opinions for deliberation of the agenda as necessary, based on sive experience and advanced insight as a corporate manager of other es both in Japan and overseas

13 meetings out of 14 meetings of the Board of Directors held during year and provided opinions for deliberation of the agenda as necessary, his extensive experience and technical expertise as a corporate manager companies both in Japan and overseas

I all 14 meetings of the Board of Directors held during the fiscal year ided opinions for deliberation of the agenda as necessary, based on nsive experience and advanced insight as a corporate manager of other es both in Japan and overseas

d all 14 meetings of the Board of Directors and all 19 meetings of the f Corporate Auditors held during the fiscal year and provided opinions for ion of the agenda as necessary, mainly from a specialist perspective as

all 14 meetings of the Board of Directors and all 19 meetings of the Corporate Auditors held during the fiscal year and provided opinions for ion of the agenda as necessary, mainly from a specialist perspective as a certified tax accountant.

> they take office as directors and auditors, the Board of Directors provides them with opportunities to explain business strategies and management issues, etc. for each fiscal vear. ULVAC. Inc. also provides directors and auditors with financial support for training deemed necessary in order for them to fulfill their duties as well as 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. 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.

ULVAC's Value Creation from the Perspective of External Directors



Hiroyuki Nishi

Norio Uchida

Yoshimi Nakajima

Dr. Kozo Ishida

The shift toward a smart society has accelerated due to the impact of COVID-19, and the business environment surrounding us is showing signs of further change. We asked External Directors about initiatives aimed at enhancing long-term corporate value when viewing ULVAC from an outside perspective.



Norio Uchida, External Director

Became an External Director of the Company in September 2015 after serving as Representative Director, President & CEO of TOPCON CORPORATION

Changes in ULVAC as seen by External Directors

Uchida: I have been serving as an External Director of ULVAC since September 2015. Looking back on

the past six years, as the business environment has changed at an extremely rapid pace, ULVAC has conducted management reforms and strengthened its management base, greatly improving its financial position. Manufacturing capabilities have improved, and growth in existing areas has become substantially more powerful than in the past. This is the result of the leadership of President Iwashita and the rest of the management team as well as simple efforts of employees working together under this top-down approach. I think the corporate culture of engaging in efforts wholeheartedly as an engineering company and a manufacturing company has become deeply ingrained throughout the entire company. Also, the top-down approach has become clearer in recent years, and the growth strategy based on the mid-term management plan has become more specific. Ishida: Although affected by COVID-19 from FY 2019 to FY 2020, being able to increase orders received in each field by staying attuned to changes in the market, while steadily improving profit by enhancing manufacturing capabilities and undergoing

a transformation aimed at improving performance was a great accomplishment. As an External Director, I have made suggestions about issues faced by ULVAC from an outside perspective and supported management reforms, and I think the current mid-term management plan "Breakthrough 2022" (covering the period from FY 2020 to FY 2022) will steadily produce results, and that ULVAC can become more resilient to future changes in the business environment by continuing to focus on human resource development and technological development.

Nakajima: I became an External Director of ULVAC in September 2018, and have felt the high level of scalability and possibilities of vacuum technology, and the potential for growth as a global company. I have a renewed awareness of the strength of the manufacturing capabilities of ULVAC as a company based on the current improvements in performance achieved by seeing the changes in society brought about by COVID-19 as an opportunity. Meanwhile, over the past three years, I have also learned that the scalability, possibilities and potential have not yet been fully tapped, and that transformation is required to make the next leap. I am very interested in people and corporate culture and have many opportunities to come in direct contact with employees in various locations at ULVAC. There are many very talented people, and by encouraging them to accomplish more, I think it will be possible to achieve sustained growth for 50 years or 100 years in the future.

Nishi: One year has passed since I was appointed External Director in September 2020. I have mainly worked in management in Japan and overseas in different industries than ULVAC, and seeing ULVAC's pride in contributing to society through engineering and manufacturing capabilities as well as the diligent work of its employees conduct their work has been refreshing and impressive. Furthermore, I have also been very inspired by the way the members of the Board of Directors including the External Directors here engage in vigorous discussion and actively exchange opinions with people on the executive side. I would like to utilize the knowledge and experience I have accumulated in areas such as risk management in the expansion of businesses and scale ULVAC will undertake to play my role in contributing to the enhancement of corporate value.

Aiming for inorganic* growth and expansion

Uchida: As its management base is currently being strengthened under the mid-term management plan, ULVAC has started formulating a long-term vision with a view to the future. ULVAC has conducted management based on the Basic Corporate Philosophy of aiming to contribute to the development of industries and science by comprehensively utilizing its vacuum and peripheral technologies, and by establishing a long-term vision, ULVAC will clarify what kind of company it aspires to be in the future (vision) as well as indicate its stance of contributing to the resolution of all types of social issues. To do this, we must identify key issues (materiality) unique to ULVAC, and incorporate them into the mid-term management plan. Strategies for achieving this are also required. As I mentioned earlier, I recognize that the current ULVAC has strengthened its manufacturing capabilities and achieved powerful growth in existing fields through a top-down approach under the leadership of President Iwashita and the rest of the management team. However, for ULVAC to develop in the long term, to survive as a company required by society and continue to provide value, I think it is necessary to achieve inorganic growth not dependent on existing fields. Specifically, I think there is an urgent need to expand business globally, enter into new businesses and secure and develop human resources for handling these. What do you all think?

Nakajima: Growth accompanied by change that is not an extension of existing business is required, and the

*Non-continuous growth that is not an extension of the current state



Yoshimi Nakajima, External Director

Became an External Director of the Company in September 2018 after serving as Vice President of Citibank, N.A., Senior General Manager of Societe Generale Securities Services and President and Representative Director of American Express Japan Co., Ltd.

ULVAC's Value Creation from the Perspective of External Directors



Hiroyuki Nishi, External Director

Became an External Director of the Company in September 2020 after serving as Director of Nippon Life Insurance Company, President and Chief Executive Officer of Nissay Asset Management Corporation and President and Chief Executive Officer of Nissay Credit Guarantee Co., Ltd.

question is what kind of preparations are being made to take the next step. In particular, human resources are an important key for global business expansion as Mr. Uchida says, and it is essential to break away from thinking centered on the Chigasaki head office as well as seek human resources able to take opportunities at local sites in addition to human resources who view themes and overcome challenges from a global perspective. Naturally, it is assumed that work will be done in English on site, and I think top management and middle management at the Chigasaki head office must communicate in English in order to aim for global growth. In addition, it is necessary to have a perspective and decision-making criteria as a global company.

Nishi: Until now, the rate of acquiring Japanese language skills in local subsidiaries has been very high at ULVAC, and I think business has been conducted globally in a Japanese-language environment especially in East Asia. However, with a view to long-term growth, it is necessary to consider entry into Europe, the United States and new areas such as India and Africa, making working in English a requirement for business.

Ishida: The development of human resources has already begun within the company, and such initiatives will be further accelerated while changing the mindset throughout the company to be more globally oriented. Further, global business expansion and entry into new businesses will require IT reform and digital transformation to be quickly implemented throughout the entire Group.

Uchida: When aiming for new growth, unless systems that are more consistent throughout the

entire Group are rebuilt, it will not be possible to grasp, analyze and accurately evaluate productivity and capital efficiency in detail.

Ishida: If core systems and information systems are effectively utilized through IT reform and digital transformation, I think more advanced awareness of issues will be shared throughout the Group in a timely manner, and priority management aimed at long-term growth will function.

Nishi: If new inorganic areas are captured while visualizing issues within the Group though the creation of such systems and executing strategic HR from a long-term perspective across organizations, I think it will be possible to expand business in a way that utilizes the high level of versatility of vacuum technology.

Producing globally competent personnel

Uchida: I think focus should be placed on the production of "globally competent" personnel as a succession plan for the next generation of management that will guide ULVAC in the future. Globally competent means being able to work and produce results anywhere in the world. I think proactively sending talented human resources working in various departments overseas to give them experience launching businesses is an effective means of developing such personnel. Ishida: When implementing initiatives such as this, cases frequently occur where superiors refuse to let go of the talented personnel in their own departments. However, personnel who are talented in one workplace often learn the job and exhibit their abilities even after moving elsewhere, and it would be a shame to restrict them to one job. The culture should be changed to enable talented personnel to work for the company as a whole and develop new personnel to succeed them in the workplace.

Nakajima: I feel that ULVAC has a very large number of young and talented personnel. If they would like to leave their current workplace and try working overseas, I would like them to consider whether they would be able to work overseas if they develop their own successors.

Nishi: Alternatively, it may be effective to introduce a quota-like system in which a fixed number of people is sent overseas from the workplace. Uchida: The production of globally competent personnel will not be in time for developing and securing the next generation of management unless we start now, obviously without any gap between men and women.

Nakajima: I agree. I think more women will be given assignments without being accompanied by family in the years to come. Naturally, the company must provide adequate support. Also, the work that can be done is limited when personnel are sent abroad alone, so it is better to send a number of people together and important to create systems enabling them to work with locally hired personnel. For example, there is quite a large number of talented women who have migrated from Japan to the United States, so one approach would be to also hire such people and form teams with them.

Ishida: The semiconductor production equipment business has service bases in North America, and I think it would be good to set up local sites to send personnel in this way as well as give them themes to work on such as marketing or the introduction of new technologies.

Nishi: This is building the basis for local business in an entrepreneurial format, isn't it? It would be ideal to send young personnel there to provide vitality leading to inorganic business expansion.

Uchida: Efforts to hire and coordinate with local personnel as mentioned by Ms. Nakajima are also important. In particular, I think unique taste is required for marketing. Local management should also be utilized in M&A after showing ULVAC's guidelines.

Check points for ULVAC going forward

Uchida: The members of the Board of Directors and the executive side will thoroughly discuss the business portfolio strategy going forward as well as work to resolve issues related to materiality to realize long-term growth of ULVAC. I think particularly important aspects of this are promoting organizational reform to enable the rapid production of personnel able to gain successful experiences and monitoring the status of such efforts. At the same time, I will respond to the mandate given to me by shareholders to focus monitoring on risk management and compliance.

Ishida: There are four points I would like to focus on. The first is the state of creation of an advanced information system that is consistent throughout the Group. The second is the development of global human resources and the advancement of the succession plan for CEO and President. The third is how research and development resources are utilized to produce value. Efforts to actively communicate the value held by ULVAC outside the company through means such as presentations at academic conventions are vital. The fourth is further improvement of efficiency of production divisions. Considerable results have been produced even now, but I think initiatives including those abroad can further improve profit and will also lead to increased quality and improvement in delivery times. I will make proposals with focus on the progress of initiatives in these four areas.

Nishi: In the immediate future, I will thoroughly check overall risk management across Group companies. Another thing I would like to do is utilize my own experience of corporate management overseas to make a variety of suggestions from a long-term perspective concerning regional strategy, business portfolio strategy and personnel strategy supporting these.

Nakajima: I would like to be constantly conscious of the way employees, shareholders and other stakeholders think about how ULVAC can not only continue to survive as a company in the long term but also continue to provide value as a presence that is absolutely essential for society. I will continue to provide support to use diversity and sustainability as means to establish the significance of existence that "we could not do without this company." As a familiar approach as a female Director who is originally from a foreign company, I would like to be actively involved in diversity initiatives and make a variety of proposals about such initiatives.



Dr. Kozo Ishida, External Director

Became an External Director of the Company in September 2016 after serving as Vice Chairman and Representative Director of HORIBA, Ltd.

Management Structure

Directors



```
Setsuo lwashita
President and Chief Executive Officer
Expertise/
                                       Sales/
narketin
 xperience
```

March 1984 August 1992	Joined the Company Manager of Beijing Business Office and Shanghai Business Office, Overseas Operation Division
September 1995 July 1998 March 2006	Director and Chief Executive Officer of ULVAC (NINGBO) CO., Ltd. General Manager of Chinese Region, Asia Division of the Company 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
July 2017	President and Chief Executive Officer
January 2019	President and Chief Executive Officer and General Manager of Human Resource Center
July 2020	President and Chief Executive Officer (current position)



Dr. Choong Ryul Paik

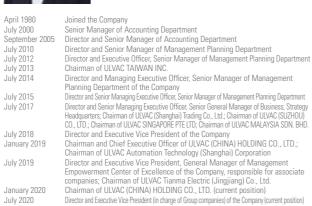
Senior Managing Director



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
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.
July 2021	Senior Managing Director (in charge of Innovation) of the Company; Chairman of ULVAC-PHI, Inc. (current position)



Mitsuru Motoyoshi Director and Executive Vice President Expertise/



experience

Hiroyuki Nishi Director Externa Expertise/ experience

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
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)

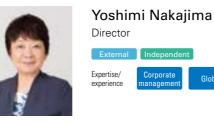


Norio Uchida



Sales/

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 Ptv Ltd.	N)
October 1994 Senior Vice President of Topcon Laser Systems, Inc. (currently To Positioning Systems, Inc.)	opcon
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 T(POSITIONING JAPAN CO., LTD.)	OPCON SOKKIA
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)	



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; 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)
April 2021	Outside Director of Sekisui House, Ltd. (current position)

Senshu Asada

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 April 2015	General Manager of Metropolitan Area Corporate Finance Dept. Joined the Company. Counselor to Senior Manager of Management Planning Department
September 2015	Audit & Supervisory Board Member (current position)



April 1983 Joined the Company Manager of Product Development Section, Vacuum Pumps Department, Precision Machinery Division July 1995

Manager of Section I, Product Development Department, Components Division Manager of Section II, Predict Development Department, July 1996 July 1999

Components Division Senior Manager of Research Department II, Research and Development Division

July 2004 June 2011 General Manager of Research and Development Division Adviser to Senior Manager of Management Planning Department Audit & Supervisory Board Member (current position)

July 2018

September 2018





Auditor

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
June 2017	External Director of Ahkun Co., Ltd. (currently Fuva Brain Limited)



Dr. Kozo Ishida



March 1970	Joined HORIBA, Ltd.
June 1982	General Manager of Product Department I, Development and Sales Division
March 1985	President and Director of HORIBA Europe GmbH (Germany)
June 1988	Director of HORIBA, Ltd.
June 1991	Managing Director
June 1996	Senior Managing Director
July 2001	President and Director (CEO) of ABX, S.A. (currently HORIBA ABX SAS) (France)
June 2002	Vice President and Director of HORIBA, Ltd.
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.



April 1997 July 1999 June 2011 June 2012 June 2013 June 2015 June 2017 . June 2019

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

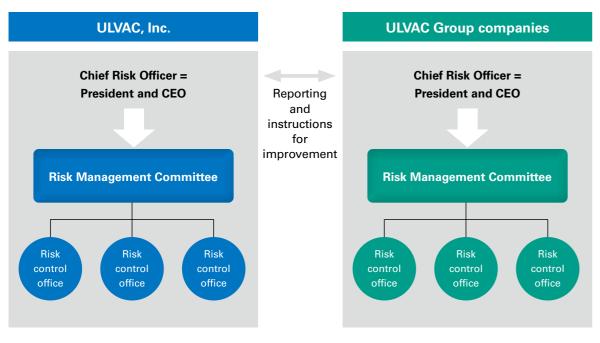
Risk Management

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

We have established rules concerning the 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 control offices are designated according to risk classifications and they implement risk management through a PDCA cycle.

Each Group company decides whether it is necessary to establish a Risk Management Committee in consideration of the size of the company in question and other factors.

Management of risks

Principal risks that may have a significant impact on 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

We have acquired our market share and achieved growth by developing unique technologies and introducing them in the field of vacuum equipment used, in particular, in FPD, semiconductor, and electronic device production processes. On the other hand, if a great reduction in capital investment occurs or customers' financial conditions deteriorate owing to change in the market conditions of FPD manufacturers, or semiconductor and electronic device manufacturers, who are ULVAC's customers, the Group's business results and financial position may be adversely affected.

Under the two fold 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 improves profitability by enhancing productivity and reinforces its ability to respond to market changes by focusing on development in growth fields.

Research and development

By maintaining vigorous R&D investment, we have 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.

Global competitive environment

We operate business globally and provide products to customers in a variety of countries and regions, but competitors also operate globally, and it is a competitive environment with new entries. In such an environment, competition is intensifying not only in terms of product performance but also price, and the ULVAC Group's business results and financial position may be adversely affected. ULVAC is striving to maintain competitiveness by sharing its technology and product roadmap with customers and launching products using cutting-edge technologies at the appropriate time.

COVID-19

ULVAC's business results and financial position may be adversely affected by factors such as the worldwide travel restrictions and deterioration of the economic environment associated with the prolonged spread of COVID-19 and other factors. ULVAC is striving to minimize the impact on business activities by implementing measures to prevent the spread of COVID-19 centered on the COVID-19 Emergency Response Headquarters headed by the President and CEO.

Recognized business risks

- 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
- Impact concerning financing
- 8 Impact concerning information security
- 9 Impact due to currency fluctuations
- 10 Impact concerning intellectual property
- 1 Impact concerning safety
- Impact concerning responses to environmental regulations and climate change
- Impact of COVID-19
- 🚺 Other risks

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

We have 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

We are 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

We have adopted a whistleblowing system operated through the Manager of the Internal Auditing Office, which is an independent body. We have also established an external whistleblowing contact to enhance the system. The Manager of the Internal Auditing Office also serves as the secretariat for the Compliance Committee, and the system 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, 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.

Human Rights

We believe that consideration for human rights is an important management issue for further global business development. We will support international norms and strengthen promotion of the protection of and respect for human rights.

Approach to Human Rights

We will support international norms on human rights, and respect basic human rights based on the laws and regulations of each country and region.

ULVAC has signed the UN Global Compact, which is a global initiative advocated by the United Nations, and is promoting initiatives in the areas of human rights, labor, environment and anti-corruption based on "The Ten Principles of the UN Global Compact" that are universal principles to be adhered to by companies in these four areas.

ULVAC has established the standards for employees to follow in its Corporate Code of Conduct.

The Corporate Code of Conduct specifies the policy of protecting human rights by respecting human rights and prohibiting all forms of discrimination, and serves as a guideline on whether employees' operations infringe upon human rights. Furthermore, it specifies policies on respecting the personality and individuality of employees, and on creating workplaces offering job satisfaction along with the Basic Policy for Human Resources Development. **P**:49 Furthermore, it stipulates the provision of safe products and services to customers by engaging in safety and health activities based on laws and regulations, complying with safety standards and performing risk assessment of our products. **P**:52 **P**:53

Corporate Code of Conduct (Excerpt)

- 7. Respect for Employees' Personality and Individuality Based on the respect for personality and the individuality of each of our employees, ULVAC will make an effort to upgrade and maintain the personnel system, labor conditions, and the fluid system wherein workers may achieve affluence and a sense of accomplishment. Also, we will evaluate personnel objectively and fairly, fostering creative human resources with expertise and rich individuality at the same time.
- 9. Respect for Human Rights and Nondiscriminatory Treatment ULVAC will assure a healthy work environment where both harassment and discrimination are never acceptable for reasons of race, credo, complexion, sex, religion, nationality, language, bodily features and description, handicap or not propertied or not, location or birthplace and sexuality. Also ULVAC will take no involvement in forced labor and child labor. ULVAC will especially strive to prevent sexual harassment, coercion, abuse, or harassing behavior by taking advantage of workplace authority and job function (harassment through official authority). In the event of such a problem, we will immediately and promptly start an investigation to take resolute action for relief of the victim and prevention of a recurrence.
- 11. Compliance with Laws or Ordinances (5) Law on Occupational Health With the cooperation of all employees, ULVAC will perform health and safety activity through risk assessment and will ensure compliance to the occupational safety and health related laws and ULVAC occupational health and safety relevant provisions. ULVAC will provide safe products and services to users implementing product risk assessment and ensure compliance to various safety standards.

Reporting and Consultation Desk for Human Rights Issues

We have adopted a whistleblowing system operated through the Manager of the Internal Auditing Department, which is an independent body. **P.47**

The Compliance Committee will implement appropriate measures with adequate consideration for confidentiality, anonymity and protection of whistleblowers, and strive to promptly resolve issues and prevent their recurrence.

Freedom of Association

ULVAC promises to conclude labor agreements with labor unions and sincerely work together to adhere to these for the establishment and development of labormanagement relations based on mutual faith and trust. Furthermore, we engage in close dialogue with labor unions on management plans and measures, in addition to labor conditions.

Supply Chain Initiatives

We endeavor to comply with the RBA Code of Conduct, which is a CSR promotion group focused on the electronics industry. In addition to implementing, evaluating and correcting self-evaluations and thoroughly managing labor hours in major production bases, we will ask business partners to work with us as we engage in initiatives. Along with the implementation of questionnaire surveys mainly for major business partners, we have incorporated the questionnaire items into the evaluation at the time of registration and periodic renewal. Furthermore, we have established a policy on the handling of conflict minerals and conduct due diligence. PE4

Due Diligence on Human Rights

We will incorporate international norms into policies as well as build human rights due diligence processes according to these procedures, making an effort to further ensure awareness, prevention, responses and relief mechanisms to address the negative effects of business activities on human rights.

Human Resources

To achieve sustained growth, vitalized organizations must serve as a foundation enabling diverse human resources to fully demonstrate their potential. Although there was the impact of COVID-19 in FY 2020, we created educational opportunities by holding online training and utilizing our unique e-learning system (ULVAC Academy Portal). ULVAC will continue to strengthen its management base by actively engaging in organization and human resources development and focusing on cultivating the leaders of tomorrow.

Basic Policy

Amid intensifying global competition, ULVAC, whose overseas sales account for over 60% of total sales, cannot grow 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 each other'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 approach, we are reinforcing the development of global human resources who are resilient to changes in the external environment and capable of working globally with an eye to the future from a broad perspective including the earth, society, markets and customers.

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.

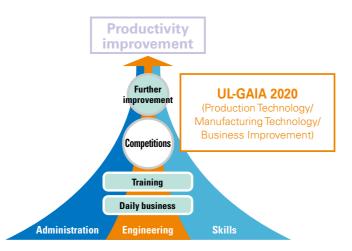
- 1. Human resources who respect other individuals, trust each other and fulfill their responsibilities
- 2. Human resources who can see the true nature of each issue and create revolutionary technologies and projects with passion and tenacity
- 3. Human resources who are full of aspirations to improve 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 2020

ULVAC has held UL-GAIA for the purpose of enabling individuals to pursue productivity improvement, sharing the outcomes and awarding their activities. 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.

It was held online for the first time in FY 2020. Presentations were made on the results (effects) and process to tackle issues concerning value creation through the improvement and innovation of the value chain process based on the theme of "Production Technology/Manufacturing Technology/Business Improvement," the creation of mechanisms and measures to inculcate ULVAC's management policies in day-to-day work, maximizing groupwide synergy, and strengthening cross-organizational functions to support resolution of issues relevant to two or more Group companies.

Under the slogan Breakthrough: Passion and Challenge, 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

ULVAC conducted the ULVAC Executive Program (UEP) with the aim of cultivating leaders who will persistently and aggressively grapple with global change. The 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.

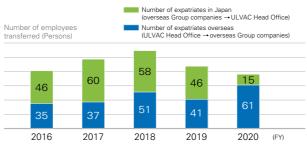
Groupwide Education and Training

ULVAC has long provided level-specific education, starting with an introductory program for new employees and a program for employees in their third year. In FY 2020, we established a manufacturing education center and administration education center to gradually enhance the specialized skills of employees for the future, and aim to ensure systematic acquisition of basic knowledge through manufacturing education and administration education. 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



*In FY 2020, restrictions were placed on entry into Japan from abroad to prevent the spread of COVID-19, and the number of expatriates in Japan decreased.

e-Learning System ULVAC Academy Portal

The portal began operation in 2016, and it currently provides an education story according to each person's conditions and preferences on "when and what to prioritize" in learning amid the significant changes in learning caused by COVID-19. It offers an environment as a database that can be used for learning anywhere at any time, thereby increasing the motivation to learn. Some 6,000 ULVAC employees have registered and are using the portal, which now supports Japanese, English, simplified Chinese, traditional Chinese, and Korean, and is used for publishing around 1,700 pieces of content.

Principal contents

- Message from the President
- Cross-cultural understanding
- Video clips of internal seminars and online lectures
 Engineering education on development,
- technology, design, manufacturing, etc.
- Mandatory education for onsite employees, such as service safety education and basic product safety education
- Mandatory education for all employees such as compliance education, information security education and education on security trade control

Creating an Excellent Working Environment

We are creating a working environment in which employees can demonstrate their strengths and originality while enhancing their productivity. 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 that is used by many employees. The average number of days of annual paid leave taken is 12.0. We have also taken steps such as the introduction of shortened working hours and the establishment of satellite offices. **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 followed up.

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.

Active participation of women

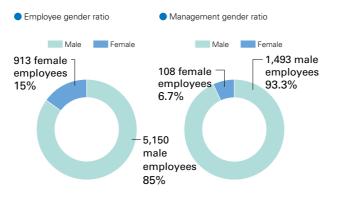
ULVAC believes that active participation of women is a key issue as it aims to create an environment in which diverse human resources can exhibit their skills and grow. In addition to launching a project conducting activities promoting the active participation of women, we are engaging in initiatives such as holding gatherings for management and female employees.

Human Resources (Continued)

Employment of people with disabilities

We proactively employ people with disabilities, and people with a variety of disabilities work at ULVAC. They aim to achieve personal growth and contribute to business, and by accumulating experience they have become indispensable in the workplace. After they join the company, ULVAC works with job assistance organizations, conducts regular interviews, offers support in the departments where they work and makes improvements to the working environment, providing follow-up according to the characteristics of each disability to ensure each employee becomes well established in the workplace. In addition, students with disabilities are also accepted from local educational institutions for on-the-job training.

Human Resources Data



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, the senior manager of the Personnel 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 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 with FY 2014," and introduced a resilience program to top management in FY 2020 with the aim of forming habits that improve physical, emotional, mental and spiritual condition. We also provided wellness support during the COVID-19 pandemic 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, the percentage of employees who work energetically*1 has increased compared with FY 2014 (Fig.1). In future, the entire ULVAC Group will work as one to conduct measures to increase work engagement.

Priority Activity 2 Health Risk Reduction

We have 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, nutrition 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 (Fig. 2). We will continue to implement measures to lower health age in future.

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



I the average score for all items of the percentage of people answering 5.1 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 2014 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.

Productivity Management Organization (White 500), ULVAC EQUIPMENT SALES, Inc. and the ULVAC Health Insurance Association have been certified as Certified Health and Productivity Management Organizations (Bright 500), and ULVAC TECHNO, Ltd., ULVAC-PHI, Inc., TIGOLD CORPORATION and REJ Co., Ltd. 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 philosophy 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.

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 of the Global Safety Committee, we will try to create an appropriate work environment for the whole ULVAC group and contribute to prosperity of our businesses.

Aiming to Maintain Zero Accidents

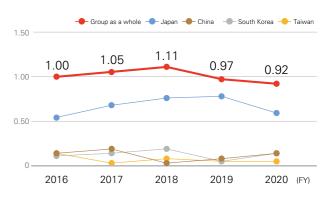
To ensure the safety and good health of its customers and employees, the ULVAC Group regularly holds meetings of the Global Safety Committee, and all Group companies promote safety and health activities in an integrated manner. Furthermore, we have established a network of the safety personnel in each Group company and promptly share, discuss or implement safety information such as revisions of laws and effective accident prevention measures.

Each Group company operates the OSHMS, and everyone is engaged in safety and health activities, such as 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.



Safety Management System

Frequency ratio of occupational accidents



*This graph shows the rate of occupational accidents for each fiscal year, with the value for FY 2016 (as of June 2017) as 1.00. We have maintained a low frequency ratio of accidents by preventing accidents through various safety activities.

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).

Quality Policy

- Improve quality & reduce costs and lead time to half
- Maximize profits and customer satisfaction

Quality Assurance System

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



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

In FY 2020, in connection with manufacturing innovations, we unified the approach to nonconformity throughout the Group companies, and created a system for integrally managing information in a database enabling centralized management. Using this, we will promote the visualization of events that occur, identify and analyze areas for improvement, implement measures to prevent recurrence without omission, and share this throughout the Group to achieve total quality management.

Total quality management



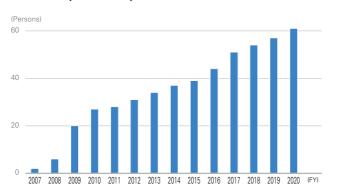
Quality Management Education

With the aim of ensuring basic knowledge on quality is obtained, educational materials on quality management for new employees and for employees engaged in engineering, design, and quality assurance are registered on the ULVAC Academy Portal*2 so that they can be accessed remotely. In FY 2020, we promoted new managers and encouraged obtaining internal auditor gualifications to strengthen the guality assurance divisions responsible for business divisions. Furthermore, we have also conducted awarenessraising activities such as distributing news to the entire Group every month in order to raise awareness about quality.

Product Safety Activities

To deliver safe and secure ULVAC brand products to markets around the world, qualified safety assessors*3 play a leading role in product safety assessments and continuously engage in activities to verify the required safety and guality 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



*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.50 for details.

*3 Safety Assessor (SA) Qualification is a qualification scheme based on thirdparty certification of machine safety knowledge and competence unde international safety standards

Procurement

Suppliers are our important partners for manufacturing. We are 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**

We have established and observed a Basic Procurement Policy and are promoting CSR procurement in cooperation with our business partners. Furthermore, "Requests to Our Business Partners" states our request for business partners in areas such as the environment, human rights, labor and compliance as well as compliance with the RBA*1 Code of Conduct. With regard to promoting CSR procurement, we conducted questionnaire surveys with reference to the RBA Code of Conduct targeting 171 major suppliers (accounting for approximately 70% of the value of procurement) in December 2020, and confirmed that there were no incidences of child labor, forced labor, inhumane treatment, fraud or bribery, which are particularly emphasized in the RBA Code of Conduct, and the handling of conflict minerals. Furthermore, we reviewed the assessment methods and items for registration of new business partners and periodical renewals, incorporated the items that had been implemented in questionnaire surveys into the management system, and changed to a system enabling the monitoring of compliance of all business partners.

Furthermore, we revised the basic transaction agreement in April 2020 and explicitly mentioned understanding the content of "Requests to Our Business Partners" and its observance. In FY 2020, we promoted the conclusion of renewals with this agreement.



Purchasing Code of Conduct

We established the Purchasing Code of Conduct, a set of principles emphasizing compliance for employees engaged in procurement, in 2019 with an aim to maintain sound, good relationships with business partners. Inhouse education such as case studies on the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors is provided twice a year for employees engaged in ULVAC, Inc.'s procurement and that of Group companies in Japan.

Communication with Business Partners

We have been holding operations briefing meetings once a year as a forum for our 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 FY 2020, we have cancelled these meetings in view of the COVID-19 pandemic, but launched and started operating a membership-based website. 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. Our policy is not to purchase or use 3TGs*2 and cobalt raw materials derived from conflict minerals.

In particular, we manufacture and sell sputtering targets and various tantalum wrought products in the materials business. We conduct due diligence in accordance with the guidance of OECD and RMI*3 through conflict minerals surveys covering raw materials suppliers in order to ensure transparency of transactions. In FY 2020, no procured items that use 3TGs or cobalt derived from conflict minerals were detected.

Green Procurement Initiatives

In August 2020, we revised the Green Procurement Standards, and requested suppliers to share information on chemical substances in commercial components used for products through the chemSHERPA*4. In FY 2020, we conducted activities with focus on creating internal structure, implementing systems and penetration of the Green Procurement Standards among business partners. Going forward, we will set specific targets and promote initiatives in cooperation with our business partners.

- *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 chair

Environment

We are strengthening efforts to address climate change based on our new environmental policy. We will contribute to reducing environmental impacts through the products and services provided to customers and their manufacturing processes. Furthermore, as the Company has built a strong governance structure in the course of acquiring integrated ISO 14001 certification, we are ensuring information sharing among Group companies, promotion of reduction of greenhouse gas emissions and swift implementation of instructions issued by top management.

Environmental Philosophy

The ULVAC group understands that the conservation of the global environment is one of the most important issues facing humanity. While effectively utilizing resources in all aspects of our operations, we take into consideration biodiversity so as to contribute to bringing about a better living environment and a more prosperous society.

Environmental Policy

• Reducing greenhouse gas emissions

- We reduce greenhouse gas emissions, a main cause of climate change, through all of our activities. We are committed to developing products that conserve energy and reduce our environmental footprint.
- Preventing environmental contamination

In conducting business, we comply with environmental laws and regulations.

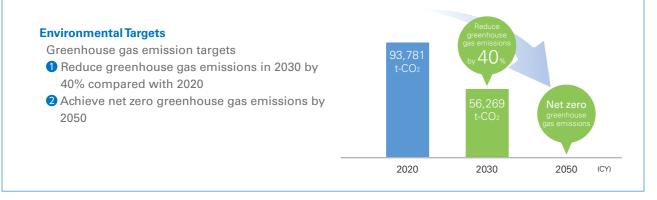
We manage hazardous chemical substances appropriately in our manufacturing processes to prevent environmental contamination and health hazards.

• Environmental targets and continuous improvement

We establish environmental targets and strive to improve our environmental performance by reviewing these targets.

In addition, we continuously improve our environmental management system through routine review. • Environmental education and information disclosure

Through environmental education, we raise the awareness of each individual and appropriately disclose environmental information.



Revision of Environmental Philosophy, Environmental Policy and Environmental Targets

As the technological innovation aimed at realization of a smart society and carbon-free society has accelerated in recent years, demand for semiconductors, electronic components, and flat panel displays is increasing more and more. Furthermore, in order to strengthen the environmental management system while flexibly responding to changes in the management environment such as enhanced measures to reduce greenhouse gas emissions taken by various countries to counter climate change and increased ratio of overseas production, we have reviewed and revised our Environmental Philosophy, Environmental Policy and environmental targets.

Addressing Climate Change

With the growing international awareness of climate change, as seen by the widespread implementation of SDGs and the adoption of the Paris Agreement, efforts to address climate change have become one of ULVAC's key management issues. In order to actively engage as a responsible member of society, the ULVAC Group has set medium- to long-term greenhouse gas emission targets in its business activities at a 40% reduction in

Our Efforts Corresponding to the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations

We will work to expand our disclosure of information on the risks and opportunities climate change poses to our business in line with the Task Force on Climaterelated Financial Disclosures (TCFD) established by the Financial Stability Board (FSB).

Governance structure

Under the supervision of the Board of Directors, the Executive Officers in charge of sustainability and environment monitor the progress of targets. Meetings of the Sustainability Promotion Committee attended by the internal directors are held twice annually to acknowledge social trends and the Company's current condition, and discuss measures to address any issues. The management and the Board of Directors deliberates

Major risks

Category	Elements	Measure
Market	Increase in business costs due to changes in customer behavior	Introdu
Policies and legal regulations	Carbon pricing	energy
Engineering	Replacement of existing products and services with those with lower emissions	Resear manufa various
Acute/chronic	Business continuity risk due to disasters caused by abnormal weather conditions such as typhoons and heavy rains	Formul implem

Major opportunities

Category	Elements	Measure
Products and services	Heightened expectations for equipment and technology contributing to low power consumption devices, power devices and lithium-ion batteries, and increased needs for low power consumption products	Researc manufa various

Indicators and targets

We revised our environmental targets in FY 2020 to further strengthen our initiatives to address climate change. We will embody our Sustainability Policy, which states "ULVAC strives to create economic, social, and environmental value by comprehensively utilizing its vacuum and peripheral technologies," by supporting the development of a smart society and a carbon2030 (compared with 2020) and effectively zero in 2050. We will take action against climate change through efforts to curb greenhouse gas emissions through all activities such as making an effort to conserve energy in Japan and overseas, introducing renewable energy with low greenhouse gas emissions and developing environmentally friendly products.

- and makes management decisions as needed when significant issues related to management arise.
- Furthermore, the Global Environmental Management Committee sets targets for each Group company, monitors progress and supports efforts to achieve the targets.
- **Risks and opportunities**
- Utilizing the framework of the TCFD recommendations, we identified the risks and opportunities presented by the impact of climate change on business in the medium to long term. In the future, we will proceed with the quantification of the impact on business, and consider specific measures.

es

uction of renewable energy and ensuring the implementation of y-saving measures in business activities

arch and development on products and services such as facturing equipment that contributes to technological innovation in is fields, and promotion of low power consumption of products

ulation of business continuity plan for natural disasters and mentation of countermeasures

es

rch and development on products and services such as acturing equipment that contributes to technological innovation in s fields, and promotion of low power consumption of products

free society through vacuum equipment and vacuum application business as well as through our initiatives aimed at achieving new targets.

Reduce greenhouse gas emissions in **2030** by **40%** as compared with 2020

Achieve net zero greenhouse gas emissions by 2050

Environment (Continued)

Environmental Activities in FY 2020

In order to achieve the newly established targets, we have started to reconsider initiatives such as promotion of various energy-saving measures for reducing greenhouse gas emissions, the introduction of renewable energy facilities and renewable energy procurement. With regard to energy-saving measures, we will actively consider the construction of ZEB*1 buildings when renewing aging buildings and facilities based on the medium- to long-term facility plan. Furthermore, the Group is working as one to reduce greenhouse gas emissions such as through modification of facility operation, introduction of highly efficient facilities, installation of renewable energy facilities and procurement of renewable energy.

We estimated Scope 3^{*2} greenhouse gas emissions in the entire supply chain in FY 2020, and determined that greenhouse gas emissions when using products have a large impact. We recognize the importance of developing products with low greenhouse gas emissions during their operation, and have begun

working on an environmental impact reduction plan in our business activities.

Total waste emissions did not change significantly compared with the previous fiscal year, but the final landfill disposal rate decreased by 1.2%, to which we believe efforts made by the Taiwan Group contributed. The Taiwan Group changed its method of sludge treatment from disposing in a landfill to recycling (thermal recovery and reuse) and also improved the efficiency of the sludge dehydrator, which led to reduced moisture content in the post-treatment sludge and ultimately less sludge waste.

The ULVAC Group will continue to promote environmental management activities in order to reduce environmental impacts derived from its business activities

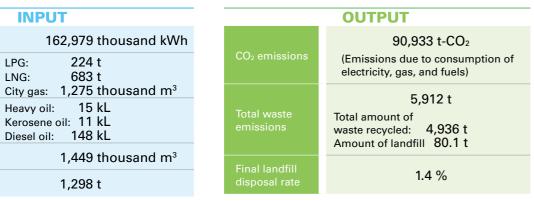
- *1 Net Zero Energy Building. A building with the purpose of realizing net zero
- energy consumption. *2 Indirect emissions from the value chain excluding direct emissions of greenhouse gases by the Company (Scope 1) and indirect emissions associated from the use of electricity, heat and steam supplied by other companies (Scope 2). Classified into upstream activities (emissions related to products and services purchased or acquired) and downstream activities issions related to products and services sold).

Material balance (Source: Aggregate data for FY 2020)

LPG:

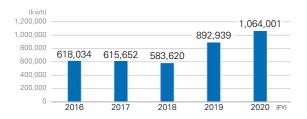
LNG:

INPUT



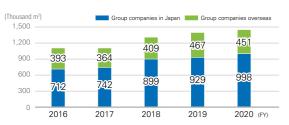
*The material balance covers 30 consolidated companies from the fiscal year under review. The figures for FY 2016 to FY 2019 have been recalculated accordingly.

Amount of solar power generated



Water consumption

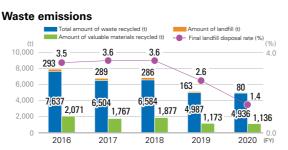
Electricity consumption



Energy-derived CO2 emissions







Initiatives at plants

Energy-saving activities in renewing air conditioning heat source equipment ULCOATTAIWAN, Inc.

ULCOAT TAIWAN, Inc. is promoting energy-saving activities and working to reduce greenhouse gas emissions. They have reduced CO₂ emissions by 2% annually from 5,796 t-CO2 in FY 2019 to 5,538 t-CO2 in FY 2021 by replacing aging heat source equipment for air conditioning in clean rooms with new ones, and revising the operating hours and number of fan filter units (FFU)*. The company will continue initiatives to improve environmental performance in the future.

*Fan filter unit (FFU) is a high-performance filter unit with a fan.

Energy-saving activities in enhanced heat interchange ULVAC, Inc., Head Office/Plant

The clean rooms in Building A and Building B of the ULVAC, Inc. head office/plant supply cold water from heat source equipment for the air conditioners installed in each building to provide air conditioning.

This initiative flexibly uses the most efficient heat source equipment in Building B for both buildings to reduce the total energy consumed at Buildings A and B Sending cold water produced in the electric refrigeration system in Building B to Building A led to a reduction in greenhouse gas emissions by 524 t-CO₂ per year.

Utilization of renewable energy

The ULVAC Group has introduced solar power generation systems and utilizes the power generated in its business activities. In FY 2020, we generated 1,064 thousand kWh, which contributed to the reduction of greenhouse gas emissions. We will continue to consider the active introduction of solar power generation systems and promote the use of renewable energy.

Environmentally friendly products

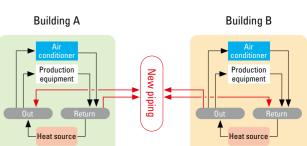
10,000 EV chargers shipped / ULVAC KOREA, Ltd.



UK-NC7W-TCE EV slow charger



Renewal of air conditioning heat source equipment



Overview of construction



Solar power generation system at ULVAC COATING CORPORATION

ULVAC KOREA, Ltd. joined the Jeju Island EV Charger Installation Consortium with the Korea Smart Grid Association and GS Caltex in 2010, and shipped 10,000 units of the 7kW slow charger model in May 2021. In 2015, their charger was selected by Good Design and they began selling 22kW and 43kW medium-speed chargers ahead of the industry. Furthermore, the company joined a project for the city of Seoul (South Korea) in April 2021 and received orders for 50kW rapid chargers. We will continue to support the spread of environmentally friendly electric vehicles with the aim of obtaining standard certification in various countries in anticipation of the growing EV business.

11-year Financial Data

Financial Data

	(Unit)	FY2010 2011.6	FY2011 2012.6	FY2012 2013.6	FY2013 2014.6
Key financial results					
Net sales ^{*1}	Millions of yen	232,040	196,804	163,351	173,878
Operating profit	Millions of yen	1,850	(6,384)	6,115	11,996
Ordinary profit	Millions of yen	1,441	(6,497)	6,264	13,384
Net income attributable to owners of parent $\ensuremath{^{\ast_2}}$	Millions of yen	(8,706)	(49,984)	(3,807)	11,538
Net assets	Millions of yen	92,023	41,187	59,436	72,238
Total assets	Millions of yen	313,616	249,651	243,289	230,791
Cash flows from operating activities	Millions of yen	17,730	(8,492)	22,357	32,213
Cash flows from investing activities	Millions of yen	(14,833)	(11,328)	(4,506)	(3,023)
Cash flows from financing activities	Millions of yen	2,159	12,616	(3,619)	(16,881)
Cash and cash equivalents at end of period	Millions of yen	35,722	28,180	44,204	57,012
Key performance indicators					
Net assets per share	Yen	1,787.51	751.00	806.38	1,040.23
Net income per share	Yen	(176.43)	(1,012.94)	(87.79)	223.18
Equity ratio	%	28.1	14.8	22.7	29.2
ROE (return on equity)*3	%	_		_	18.8
Ratio of ordinary profit to total assets*4	%	0.5	_	2.5	5.6
Price-earnings ratio*5	Times	_	_		9.66
Other indicators					
Capital expenditure	Billions of yen	17.8	12.7	6.8	6.2
R&D expenses	Billions of yen	8.3	7.1	5.0	5.2
Interest-bearing debt	Billions of yen	105.1	120.2	106.1	89.6
Dividends	Yen	_	_	_	_
Dividend payout ratio	%	_	_	_	_
Number of employees	Persons	7,878	6,981	6,579	5,971

*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.

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, 2021.

Management's Recognition, Analysis and Discussion of Financial Position and Operating Results

For the fiscal year ended June 30, 2021 (FY 2020). net sales amounted to ¥183,011 million, a decrease of 1.3% year on year. Although orders received for FPD production equipment increased due to active investment in LCDs resulting from an increase in demand for panels and continued investment in OLEDs such as those for smartphones and tablets, net sales was below the level of the previous fiscal year due to decreases in orders received in the previous fiscal year. Net sales of semiconductor and electronic device production equipment increased from the previous fiscal year due to the resumption of memory investment, continued investment in logic, in addition to an increase in orders received for electronic device production equipment including power devices, optical devices and communication devices.

Operating profit margin was 9.4%, up 0.8 percentage points from the previous fiscal year. This was mainly attributable to the enhancement of manufacturing capabilities, which is an initiative under the mid-term management plan, beginning to produce results.

R&D expenses totaled ¥8,375 million, a decrease of ¥22 million from the previous fiscal year. The ratio of R&D expenses to net sales was 4.6%, an increase of 0.1 percentage points from the previous fiscal year due to a decrease in net sales. Although the amount of R&D expenses was on par with the previous fiscal year owing to continuation of 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 objective indicators for evaluating the degree of achievement of the management policies, management strategies, and management objectives, we are implementing a new mid-term management plan, "Breakthrough 2022," which covers three years from FY 2020. The basic policy of this midterm 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 key performance indicators.

Quantitative targets of the third year (FY 2022) of the mid-term management plan were revised in August 2021 due to favorable market conditions. Two targets were revised upward: net sales to ¥235.0 billion (¥210.0 billion before revision) and operating profit to ¥38.0 billion (¥34.0 billion before revision). Other than these, we have maintained the figures announced in August 2020 with gross profit margin of 35% or above, operating profit margin of 16% or above, ROE of 13% or above, and operating cash flow of ¥29.0 billion. The Group aims to achieve further growth from a mediumto 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 increased 2.3% year on year to ¥151,269 million. This was mainly attributable to a year-on-year decline in net sales of FPD production equipment due to the impact of a decrease in orders received for LCD and OLED equipment in the previous fiscal year. Meanwhile, net sales of semiconductor and electronic device production equipment were above the level of the previous fiscal year largely because of a recovery in orders received for memory and for logic as well as an increase in orders received for power devices, optical devices and communication devices in electronic devices. Segment profit margin improved from 8.8% for the previous fiscal year to 10.3% for the fiscal year under review. This was mainly attributable to the enhancement of manufacturing capabilities, which is an initiative under the mid-term management plan,

beginning to produce results in the FPD production equipment and electronic device production equipment.

Vacuum Application Business

Segment net sales decreased 3.6% year on year to ¥31,742 million. Although net sales decreased for mask blank-related, an increase in net sales of surface analyzers and an increase in net sales for sputtering target materials for LCDs associated with the recovery of the facility utilization rate of customers' plants due to increased demand for panels resulted in an increase in net sales for the segment. Segment profit margin improved from 5.4% for the previous fiscal year to 6.8% for the fiscal year under review. This was mainly attributable to an increase in net sales of highly profitable products.

Financial Position

Total assets at the end of FY 2020 amounted to ¥292,761 million, having increased ¥10,411 million compared with the figure at the previous fiscal year-end. The main factors were increases of ¥10,850 million in cash on hand and in banks due to an improvement in operating cash flow resulting from strengthening of cash flow management, which is an initiative under the mid-term management plan, and ¥2,052 million in inventories mainly due to an increase in orders received, which were partially offset by a decrease of ¥4,509 million in investment securities mainly due to the sale of listed shares held in order to improve capital efficiency and strengthen financial position.

Total liabilities amounted to ¥119,062 million, having decreased ¥2,194 million compared with the figure at the previous fiscal year-end. The main factors were a decrease of ¥10,392 million in short-term loans payable and long-term loans payable due to repayment,

Cash Flows

Cash and cash equivalents at the end of FY 2020 amounted to ¥83,061 million, having increased ¥5,114 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 ¥25,520 million due to the recording of income before income taxes and depreciation, in addition to a reduction of working capital through strengthening of cash flow management with the objective of improving capital efficiency while orders received increased. **Cash Flows from Investing Activities**

Net cash used in investing activities amounted to ¥6,925 million, and the main factors in the decrease

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 risk and the repayment burden. whereas notes and accounts payable, trade, and advances received increased ¥4,634 million and ¥1,090 million, respectively, mainly due to an increase in orders received.

Net assets amounted to ¥173,699 million, having increased ¥12,605 million compared with the figure at the previous fiscal year-end. The main factors were an increase of ¥11,002 million in retained earnings mainly due to recording net income attributable to owners of parent and an increase of ¥4,704 million in foreign currency translation adjustment due to the impact of the weak yen as well as a decrease of ¥3,127 million in the valuation difference on available-for-sale securities mainly due to the sale of listed shareholdings.

As a result, the equity ratio at the end of FY 2020 was 57.0%, an increase of 2.4 percentage points compared with the end of the previous fiscal year.

- included purchase of property, plant and equipment and intangible assets, which were partially offset by proceeds from sales of investment securities. As a result, free cash flow was ¥18,595 million.
- **Cash Flows from Financing Activities** Net cash used in financing activities amounted to ¥16,061 million. Generated free cash flow was allocated to the repayment of short-term loans payable and long-term loans payable and for the payment of cash dividends.

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)	
	FY2019 (As of June 30, 2020)	FY2020 (As of June 30, 2021)	
Assets			
Current assets			
Cash on hand and in banks	80,694	91,545	
Notes and accounts receivable, trade	66,702	66,289	
Merchandise and finished goods	3,883	4,064	
Work in process	21,004	22,785	
Raw materials and supplies	10,217	10,309	
Other	6,903	7,858	
Allowance for doubtful accounts	(419)	(319)	
Total current assets	188,985	202,530	
Non-current assets			
Property, plant and equipment			
Buildings and structures	81,850	83,821	
Accumulated depreciation	(52,735)	(55,500)	
Buildings and structures, net	29,115	28,321	
Machinery, equipment and vehicles	76,740	79,326	
Accumulated depreciation	(57,428)	(60,073	
Machinery, equipment and vehicles, net	19,312	19,253	
Tools, furniture and fixtures	13,933	14,098	
Accumulated depreciation	(12,295)	(12,651)	
Tools, furniture and fixtures, net	1,638	1,448	
Land	8,344	8,480	
Leased assets	3,851	4,516	
Accumulated depreciation	(1,284)	(1,549	
Leased assets, net	2,567	2,967	
Construction in progress	4,213	5,617	
Total property, plant and equipment	65,189	66,086	
Intangible assets			
Leased assets	53	34	
Software	973	1,347	
Other	2,251	2,115	
Total intangible assets	3,278	3,496	
Investments and other assets			
Investment securities	11,869	7,360	
Deferred tax assets	6,108	6,385	
Other	9,343	8,763	
Allowance for doubtful accounts	(2,422)	(1,859	
Total investments and other assets	24,898	20,649	
Total non-current assets	93,365	90,231	
Total assets	282.350	202 761	
10191 92262	282,350	292,761	

abilities	
abilities urrent liabilities	
Notes and accounts payable, trad	e
Short-term loans payable Lease obligations	
Income taxes payable	
Advances received	
Accrued employees' bonuses	
Accrued directors' bonuses	
Accrued warranty costs	
Provision for loss on order receive	ed
Other	
Total current liabilities	
ong-term liabilities	
Long-term loans payable	
Lease obligations	
Deferred tax liabilities	
Net defined benefit liability	
Provision for board benefit trust	
Asset retirement obligations	
Other	
Total long-term liabilities	
otal liabilities	
et Assets	
hareholders' equity	
Capital stock	
Capital surplus Retained earnings	
Treasury shares	
Total shareholders' equity	
ccumulated other comprehensiv	ve income
Valuation difference on available-f	
Foreign currency translation adjust	
Remeasurements of defined ben	
Total accumulated other compreh	•
on-controlling interests	

Total liabilities and net assets

(Millions of yen)

	(Millions of yen)
FY2019	FY2020
(As of June 30, 2020)	(As of June 30, 2021)
31,439	36,073
11,266	8,508
666	722
1,340	2,182
11,569	12,659
2,686	3,048
372	355
1,672	1,222
1,323	1,253
9,952	11,797
72,285	77,819
38,577	30,943
1,999	2,361
27	42
7,363	6,968
156	198
402	406
447	326
48,972	41,243
121,256	119,062

20,873	20,873
3,912	3,912
126,571	137,573
(349)	(343)
151,007	162,015
5,301	2,174
(572)	4,132
(1,482)	(1,422)
3,246	4,884
6,840	6,800
161,093	173,699
282,350	292,761

Consolidated Financial Statements

Consolidated Statements of Income

	FY2019	FY2020
	(July 1, 2019-June 30, 2020)	(July 1, 2020-June 30, 2021)
Net sales	185,402	183,01
Cost of sales	134,805	129,247
Gross profit	50,596	53,764
Selling, general and administrative expenses		
Selling expenses	13,091	14,80
General and administrative expenses	21,547	21,766
Total selling, general and administrative expenses	34,638	36,567
Operating profit	15,958	17,197
Non-operating income		
Interest income	171	199
Dividend income	634	650
Insurance and dividends income	316	580
Subsidy income	150	328
Share of profit of entities accounted for using equity method	494	565
Other	1,747	82
Total non-operating income	3,511	3,16
Non-operating expenses		
Interest expenses	437	498
Foreign exchange losses	_	37:
Other	980	1,520
Total non-operating expenses	1,418	2,39
Ordinary profit	18,052	17,96
Extraordinary income		
Gain on sales of investment securities	3,261	4,998
Gain on sales of non-current assets	47	55
Total extraordinary income	3,308	5,053
Extraordinary losses		
Loss on retirement of non-current assets	64	99
Impairment loss	175	-
Loss on liquidation of subsidiaries and associates	_	378
Expenses for COVID-19 measures	_	984
Total extraordinary losses	239	1,46
Income before income taxes	21,122	21,555
Current income taxes	4,790	4,86
Deferred income taxes	4,596	1,218
Total income taxes	9,386	6,08
Net income	11,736	15,474
Net income attributable to non-controlling interests	967	644
Net income attributable to owners of parent	10,769	14,830

Consolidated Statements of Comprehensive Income

onsolidated Statements of Comprehensive in	come	(Millions of ye
	FY2019 (July 1, 2019-June 30, 2020)	FY2020 (July 1, 2020-June 30, 2021)
Net income	11,736	15,474
Other comprehensive income		
Valuation difference on available-for-sale securities	(1,347)	(3,137
Foreign currency translation adjustment	(759)	4,748
Remeasurements of defined benefit plans, net of tax	48	58
Share of other comprehensive income of entities accounted for using equity method	(142)	342
Total other comprehensive income	(2,200)	2,010
Comprehensive income	9,536	17,483
Comprehensive income attributable to:		
Owners of parent	8,626	16,467
Non-controlling interests	910	1,016

Consolidated Statements of Cash Flows

	flows from operating activities
	ome before income taxes
	preciation
	pairment loss
	ss on retirement of non-current assets
	rease (decrease) in allowance for doubtful accoun
	rease (decrease) in accrued employees' bonuses
	rease (decrease) in net defined benefit liability
	rease (decrease) in provision for board benefit tru
	rease (decrease) in accrued warranty costs
	rease (decrease) in provision for loss on orders rece
	erest and dividend income
	erest expenses
	bsidy income
	ss (gain) on sales of investment securities
	ss (gain) on sales of non-current assets
	are of (profit) loss of entities accounted for using uity method
rec	crease (increase) in notes and accounts eivable - trade
	crease (increase) in inventories
	rease (decrease) in notes and accounts payable – trade
	rease (decrease) in advances received
	rease (decrease) in accrued consumption taxes
Oth	
	btotal
	erest and dividend income received
	erest expenses paid
	ome taxes paid
	t cash provided by (used in) operating activities
	flows from investing activities
	ments into time deposits veeds from withdrawal of time deposits
Pur	rchase of property, plant and equipment and angible assets
Pro	nceeds from sales of property, plant and equipment d intangible assets
	oceeds from sales of investment securities
	ceeds from subsidy income
Oth	i i
	t cash provided by (used in) investing activities
	flows from financing activities
	t increase (decrease) in short-term loans payable
	pceeds from long-term loans payable
	payments of long-term loans payable
	payments of lease obligations
-	sh dividends paid
	rchase of treasury shares
	ridends paid to non-controlling interests
Oth	
	t cash provided by (used in) financing activities
	of exchange rate change on cash and cash equivale
	ncrease (decrease) in cash and cash equivalents
Cash	and cash equivalents at beginning of period
	ase in cash and cash equivalents resulting from
Increa	and and such equivalence resulting inviti

	(Millions of yer	
FY2019 (July 1, 2019-June 30, 2020)	FY2020 (July 1, 2020-June 30, 2021)	
21,122	21,559	
7,849	8,386	
175	-	
64	99	
(2,053)	(823) 217	
(1,031) (411)	(402)	
(411)	402)	
34	(508)	
224	(70)	
(806)	(850)	
437	498	
(150)	(328)	
(3,261)	(4,998)	
(47)	(55)	
(494)	(569)	
9,941	2,505	
2,718	(2,568)	
(7,985)	3,215	
(4,186)	153	
(370)	65	
3,292	3,332	
25,071	28,899	
1,111	1,178	
(450)	(505)	
(6,994) 18,738	(4,052) 25,520	
10,750	20,020	
(3,728)	(11,033)	
3,707	5,338	
(8,828)	(7,147)	
1,175	277	
3,371	5,346	
150	134	
10	161	
(4,143)	(6,925)	
(3,785)	(361)	
26,689	3,750	
(8,607)	(13,689)	
(787)	(825)	
(5,175)	(3,945)	
(120)	(1)	
(760)	(984) (5)	
7,455	(16,061)	
39	2,468	
22,089	5,002	
55,859	77,948	
-	112	
77,948	83,061	

Company Data/Stock Information

Company Profile As of June 30, 2021

Directors, Auditors and Executive Officers As of September 29, 2021

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 1,294 Consolidated 6,063

President and Chief Executive Officer	Setsuo Iwashita	Managing Executive O
Director and Executive Vice	Mitsuru Motoyoshi	Managing Executive O
President		Senior Exec
Senior Managing	Dr. Choong Ryul	Officer
Director	Paik	- Senior Exec
External Director	Hiroyuki Nishi	Officer
External Director	Norio Uchida	Executive O
External Director	Dr. Kozo Ishida	Executive O
External Director	Yoshimi Nakajima	Executive O
Auditor	Makoto Ito	Executive O
Auditor	Mitsuru Yahagi	Executive O
External Auditor	Senshu Asada	Executive O
External Auditor	Isao Utsunomiya	Executive O

lwashita	Executive Officer	Tetsuya Shimada
Motoyoshi	Managing Executive Officer	Sadao Aoki
ong Ryul	Senior Executive Officer	Shigemitsu Sato
i Nishi	Senior Executive Officer	Tomoyasu Kondo
chida	Executive Officer	Yu Jer Tsai
o Ishida	Executive Officer	Zheng Ming Zeng
Nakajima	Executive Officer	Dr. Koukou Suu
lto	Executive Officer	ShinjiTakahashi
Yahagi	Executive Officer	Yasuo Shimizu
Asada	Executive Officer	Kenji Yamaguchi
sunomiya	Executive Officer	Dr. Ju Hoon Shin

Stock Information As of June 30, 2021

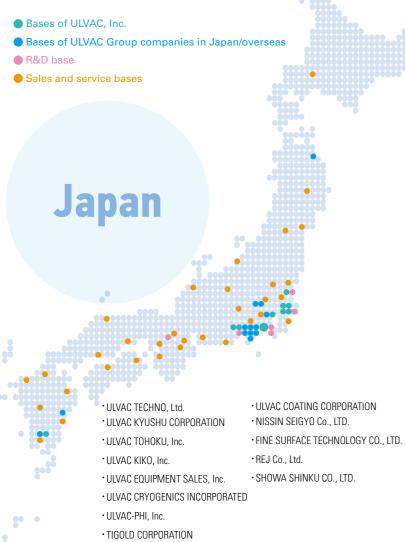
Total number of shares authorized 100,000,000
Total number of shares issued
Total number of shareholders 12,791

Major Shareholders

Shareholder's name	Number of shares (Thousands)	Shareholding ratio (%)
Custody Bank of Japan, Ltd. (Trust account)	3,431	6.95
The MasterTrust Bank of Japan, Ltd. (Trust account)	3,280	6.65
Nippon Life Insurance Company	3,242	6.57
TAIYO FUND,L.P.	2,838	5.75
TAIYO HANEI FUND,L.P.	1,644	3.33
BBH (LUX) FOR FIDELITY FUNDS-GLOBALTECHNOLOGY POOL	1,330	2.70
STATE STREET BANK AND TRUST COMPANY 505103	1,171	2.37
STATE STREET BANK AND TRUST COMPANY 505227	1,121	2.27
J.P. MORGAN BANK LUXEMBOURG S.A. 381572	1,103	2.23
INDUS JAPAN LONG ONLY MASTER FUND, LTD	898	1.82

Note: Treasury stock (3,861 shares) is excluded from the calculation of shareholding ratios.







· ULVAC Materials (Suzhou) Co., Ltd

• Hong Kong ULVAC Co., Ltd.

• ULVAC CRYOGENICS (NINGBO) INCORPORATED

· ULVAC VACUUM EQUIPMENT (SHANGHAI) CO., LTD.

• ULVAC Research Center SUZHOU Co., Ltd.

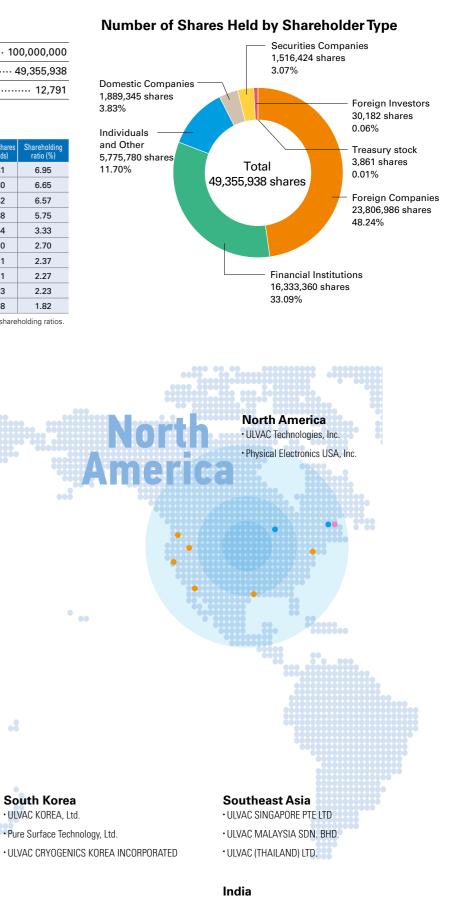
· ULVAC Coating Technology (HEFEI) Co., Ltd.

.....

Taiwan

· ULVAC TAIWAN INC. · ULTRA CLEAN PRECISION TECHNOLOGIES CORP. · ULCOAT TAIWAN, Inc. · ULVAC AUTOMATION TAIWAN Inc. · ULVAC SOFTWARE CREATIVE TECHNOLOGY, Co., LTD. • ULVAC Materials Taiwan, Inc.

South Korea · ULVAC KOREA, Ltd. • Pure Surface Technology, Ltd.



• Ulvac Singapore Pte Ltd, India Branch