

ULVAC
VALUE REPORT
2022

ULTIMATE
IN VACUUM



真空

Vacuum

Basic Corporate
Philosophy

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

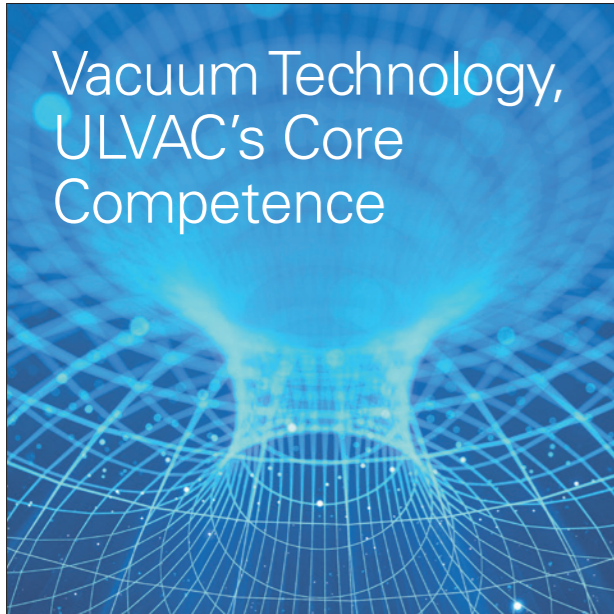
Management
Policies

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

ULVAC's goal for 2050 is to become "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."

'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 who aspired to contribute to Japan's post-war reconstruction and the development of industry and science through the use of vacuum technology. This aspiration led to the creation of various types of vacuum technology equipment that played important roles in multiple fields ranging from automobiles and electrical appliances in everyday life to raw materials and chemicals in industry. For the most advanced industries, such as flat panel displays, semiconductors and electronics, vacuum technology has become indispensable, and we have grown by responding to changes in the prevailing 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 are never satisfied with the status quo but always embrace change, pursuing cutting-edge vacuum technology together with our partners. We will contribute to the realization of a sustainable society through vacuum technology, ceaselessly striving to fulfill our social responsibilities.



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

For example, using vacuum technology, it is possible to create ultrathin films with micron-to-nanometer-order thickness. Since such thin films cannot be produced by physically stretching materials, advanced vacuum thin film processing 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 is making the digital society an everyday reality. Vacuum thin film processing technology is destined to fulfill a vital role for the fundamental technologies underpinning the digital society.

ULVAC's Business Segments

Vacuum Equipment Business

Semiconductor and electronic device production equipment

- Semiconductor (memory, logic, power devices, 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 coaters (vacuum deposition, sputtering)

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
- Automatic helium leak testers

Vacuum Application Business

Materials

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

Other

- 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.

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Editorial Policy

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

Published:

November 2022 (Previous issue published in November 2021)

Guidelines Referenced:

The International Integrated Reporting Framework, the International Integrated Reporting Council (IIRC) Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation (Guidance for Collaborative Value Creation), Ministry of Economy, Trade and Industry (METI) ISO26000

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, 2022

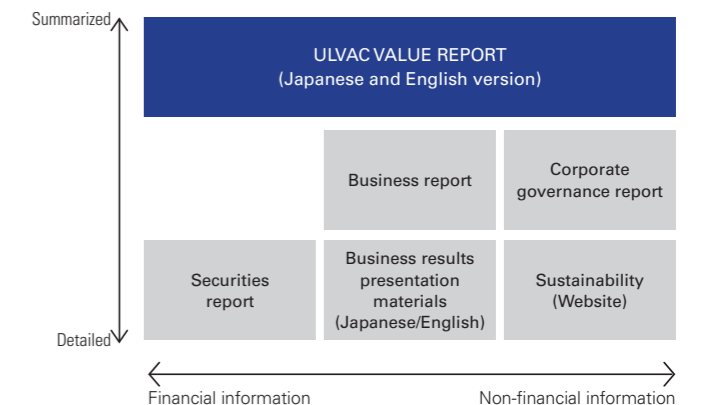
(July 1, 2021 to June 30, 2022, FY 2021)

Some portions of the report include activities and initiatives from July 2022 onward.

<Disclaimer>

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

ULVAC's Communication Tools



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

To help you deepen your understanding of the ULVAC Group, our communication tools range from statutory disclosure documentation centering on information on financial closing to this report that offers non-financial information, such as on 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

ULVAC celebrates its 70th anniversary this year. Ever since its foundation in 1952, ULVAC has been contributing to the resolution of social issues in each successive era by deploying its core state-of-the-art vacuum technology, and has grown remarkably. ULVAC will continue contributing to the development of industry and science through the comprehensive application of vacuum technology in accordance with the Basic Corporate Philosophy.

1952-1970

High economic growth period

Industrial restoration and convenience in daily life

Applied vacuum equipment to contribute to industries supporting people's lives

1971-1990

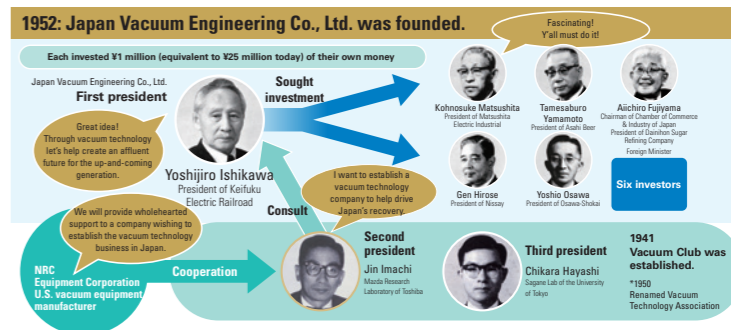
Development of electronics

Comfortable working environment

In line with increasing demand for semiconductors, a stream of ULVAC products gained top shares in the global market.

The story of ULVAC's foundation

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



1991-2010

Information society, spread of digital home appliances

High-performance devices

ULVAC grew significantly in line with the expansion of the FPD market from Japan to South Korea and Taiwan.

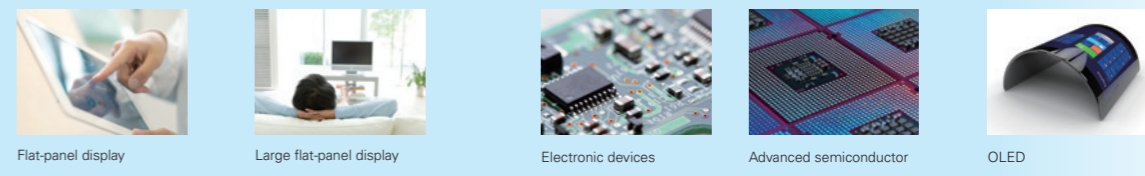
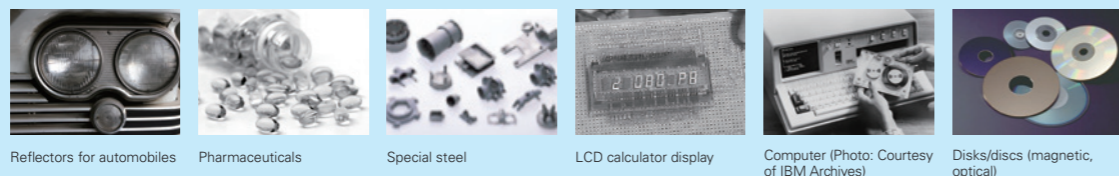
2011-Present

Digital society

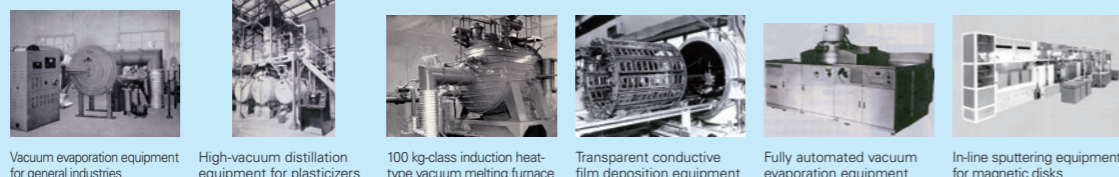
Sustainable future

Contributing to a wide range of fields by leveraging strengths as a comprehensive vacuum manufacturer in line with the spread of mobile devices and the development of ICT

Customers' products



ULVAC's solutions



■ Net sales ■ Sales overseas*
● Operating profit*

● The current logo was established in 2001.

ULVAC



1969

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

1968

● Head Office/Plant completed in Chigasaki, Kanagawa Prefecture.



1952

● Japan Vacuum Engineering Co., Ltd. was founded. Please see "The story of ULVAC's foundation" at upper right for the background to ULVAC's foundation.



1964

● Established the first overseas subsidiary in Hong Kong.

1955

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

1983

● Opened the Beijing Office in China.

1972

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



1982

● Established a subsidiary in Taiwan.

1975

● Established a subsidiary in North America as a base for exports to the U.S.

2004

● Listed on the First Section of the Tokyo Stock Exchange.
● New buildings of the Head Office/Plant (Chigasaki, Kanagawa Prefecture) completed.



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

2003

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

2001

● Changed the company name to ULVAC, Inc.

2005

● Established R&D bases in South Korea and Taiwan.

2015

● Established the Future Technology Research Laboratory.

Further growth through industry-academia collaboration

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

2021
● Opened the ULVAC Advanced Technology Collaborative Research Cluster at Tokyo Institute of Technology



2022
● ULVAC's 70th anniversary

Results for FY 2021
Net sales: ¥241.3 billion
Ratio of sales overseas: 70%
Operating profit: ¥30.1 billion

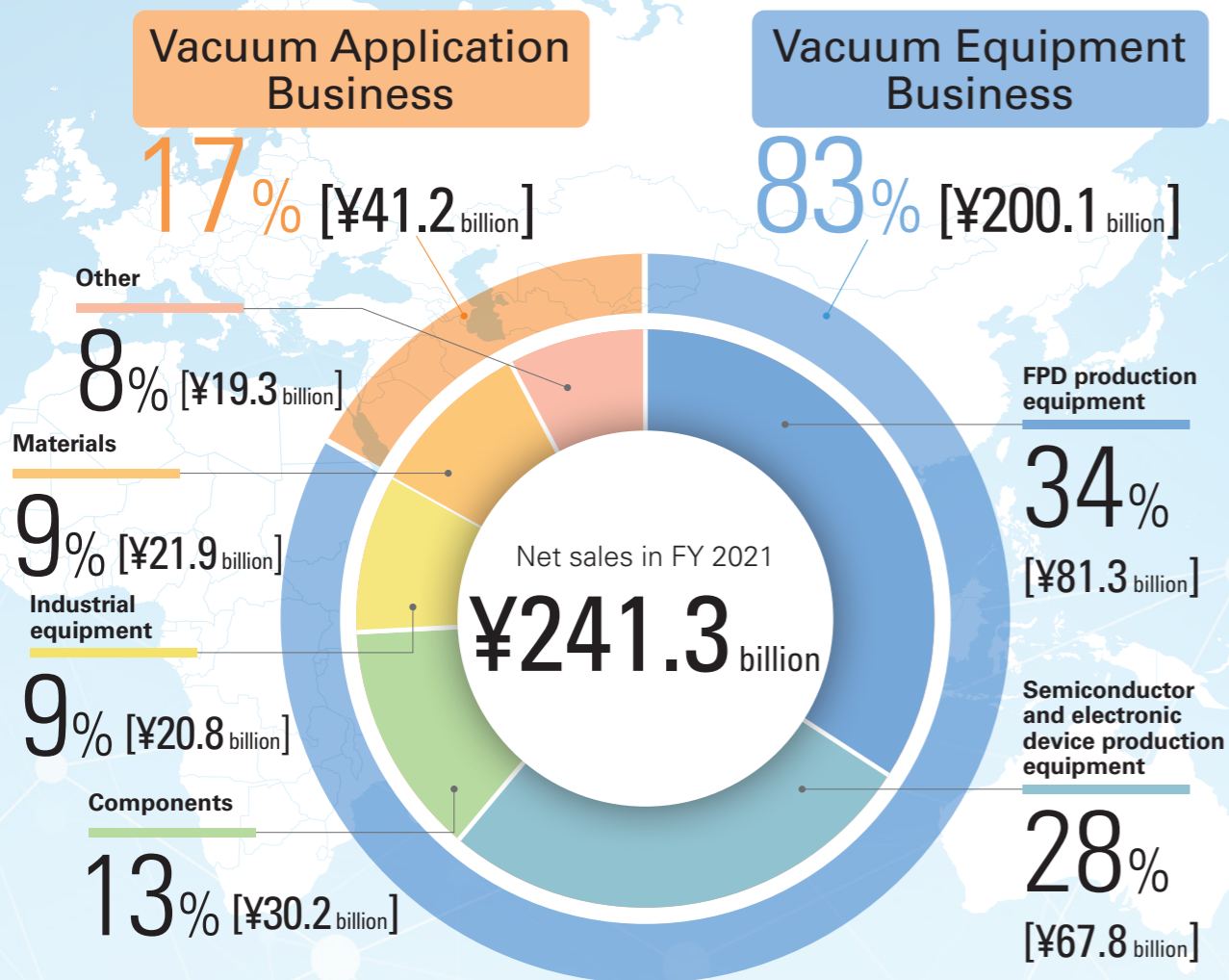
*Sales overseas and operating profit only for FY 2004 onward are indicated.

ULVAC's Global Reach

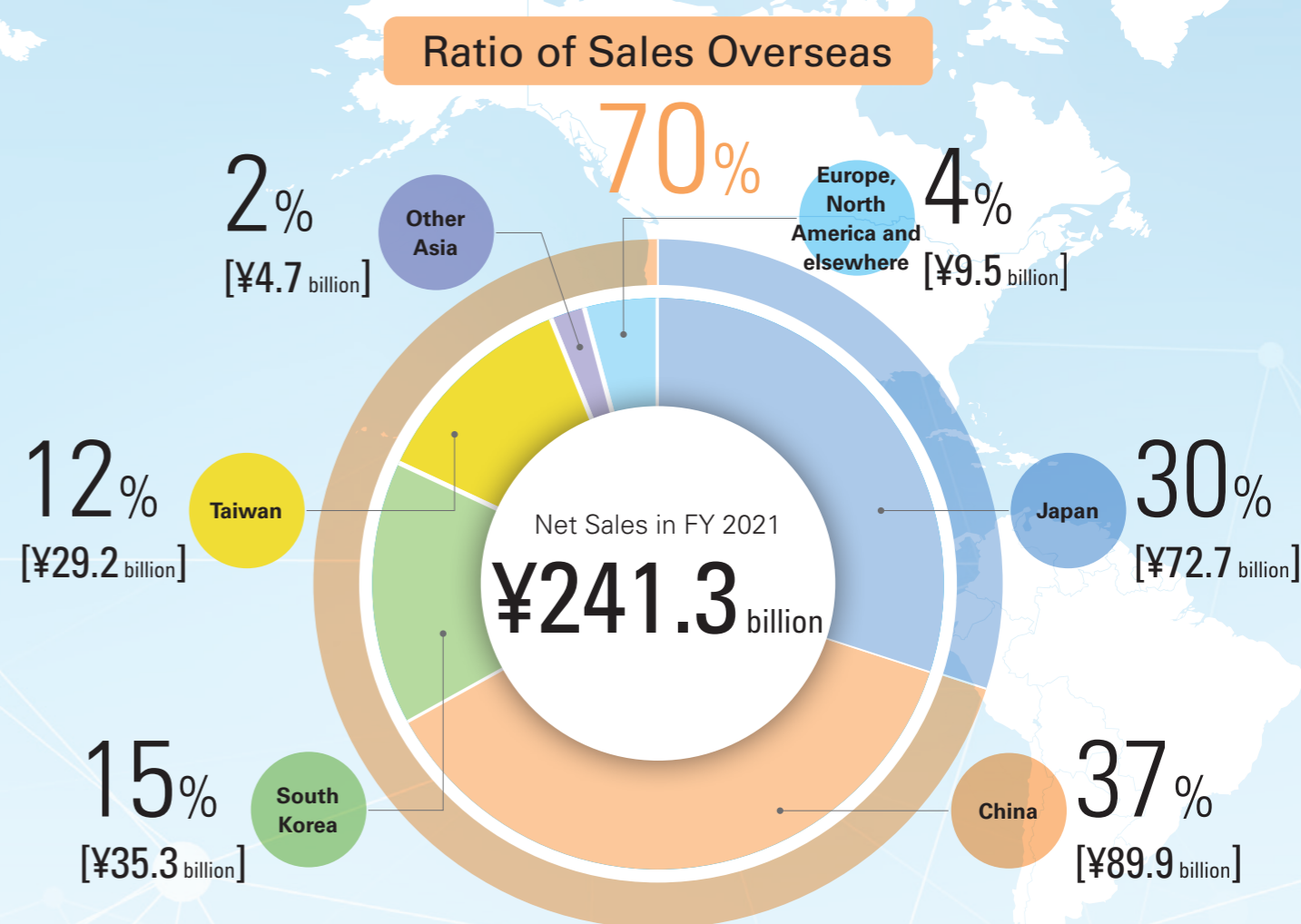
Across a wide range of industries, ULVAC is the source of numerous products and technologies that meet the needs of our customers and the market. For FPD production equipment and semiconductor and electronic device production equipment, which are ULVAC's current mainstay businesses, many of our major customers are in East Asia. ULVAC is characterized by a high ratio of sales overseas, centering on East Asia.

We have a global R&D system to promote joint development in close proximity to the world's leading companies and advanced research institutions as well as a global support system to satisfy customers in every situation. With regard to production, we are working to strengthen our manufacturing capabilities, optimize production in light of business needs and regional characteristics, and enhance integration of the global supply chain and collaboration, with a focus on East Asia.

Net Sales by Business Segment (Amount and %)

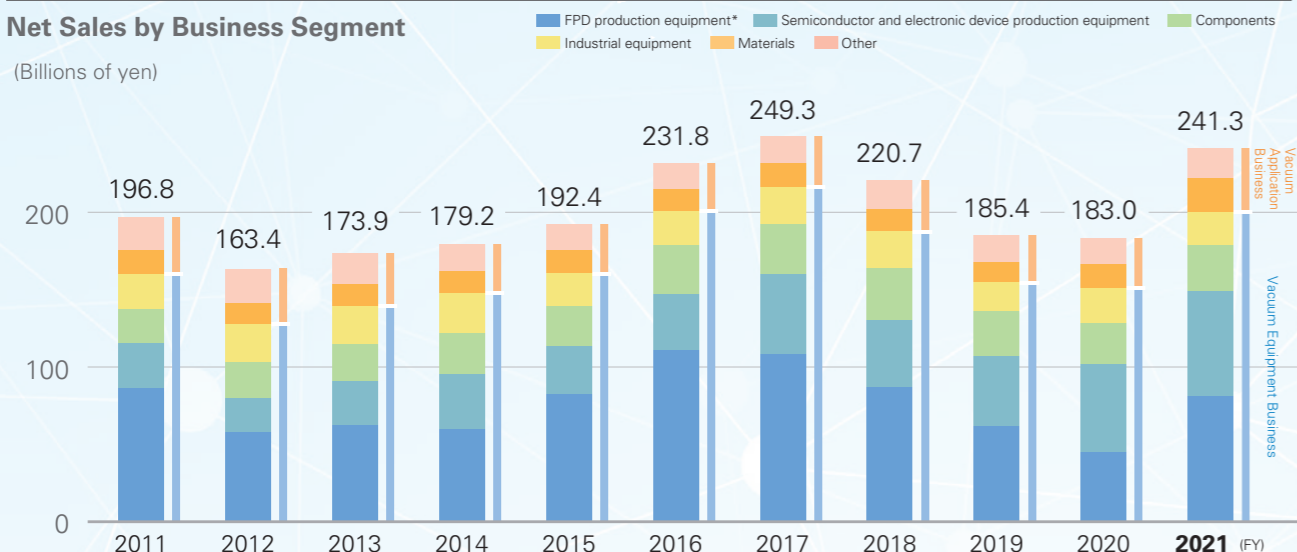


Net Sales by Region (Amount and %)



Net Sales by Business Segment

(Billions of yen)



*Includes PV production equipment business up to FY 2018.

ULVAC's Global Reach

	Japan	China	South Korea	Taiwan	Europe, North America and elsewhere	Other Asia	Total
Number of employees*1	3,037	1,618	754	587	141	98	6,235
Number of companies	11	15	3	6	3	3	41
Number of support bases	25	15	6	6	9	8	69
Number of R&D bases	5	1	2	1	1	0	10
Number of production bases by business*2							
FPD production equipment	3	1	1	1	0	0	
Semiconductor and electronic device production equipment	4	1	1	1	1	0	
Components	4	3	1	0	0	0	
Industrial equipment	2	2	0	0	0	1	
Materials	4	1	1	1	0	1	
Other	4	3	1	2	0	1	

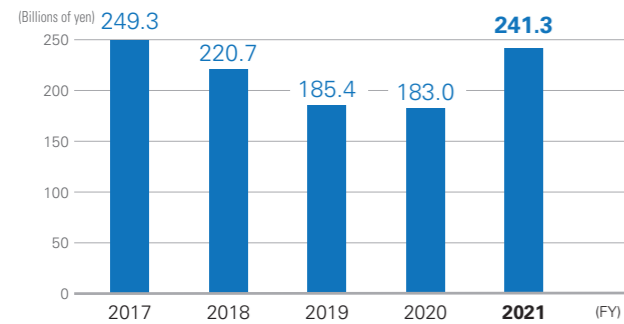
*1 The number of employees is on a consolidated basis (as of June 30, 2022). The number of bases includes non-consolidated subsidiaries and associates (as of September 30, 2022).

*2 As for production bases, plants that produce items for more than one business are counted for each business.

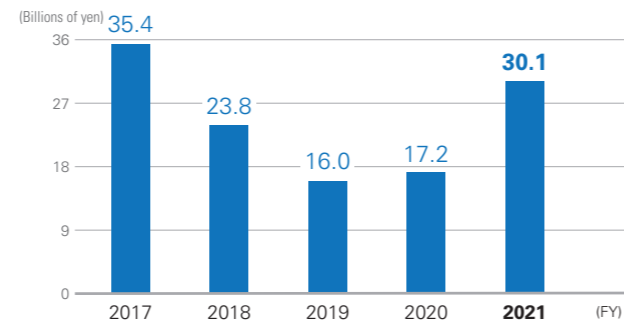
Consolidated Financial and Non-financial Highlights

Consolidated Financial Highlights

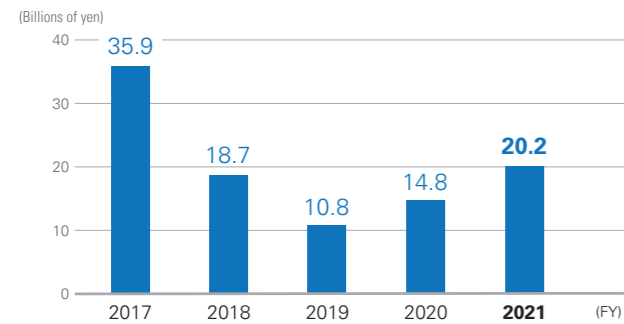
Net sales



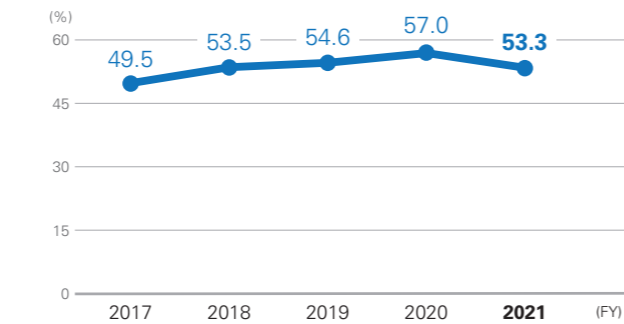
Operating profit



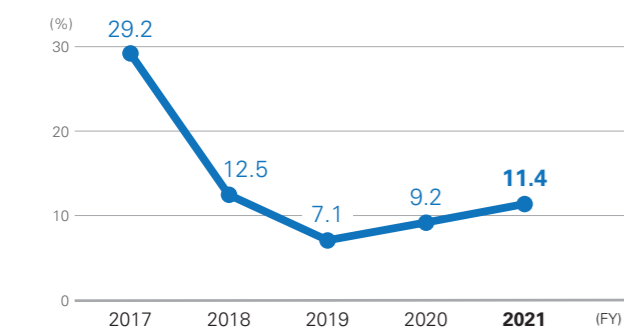
Profit attributable to owners of parent



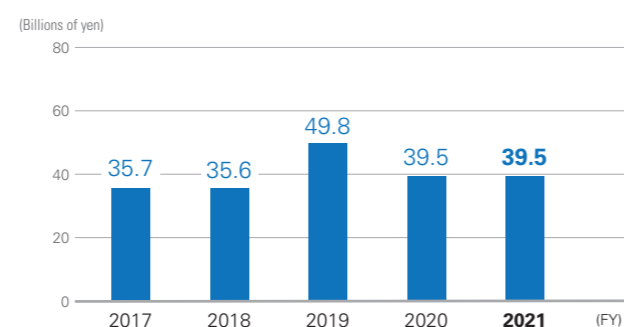
Shareholders' equity ratio



ROE (Return on equity)

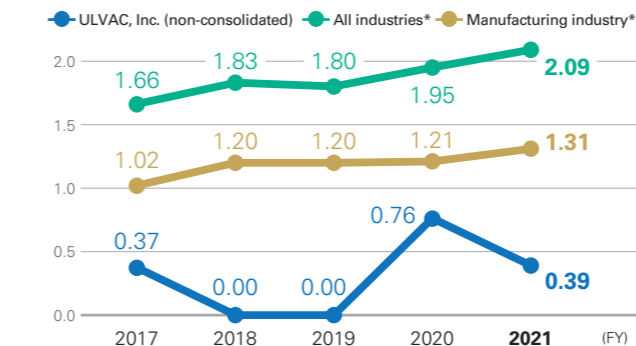


Interest-bearing debt



Non-financial Highlights

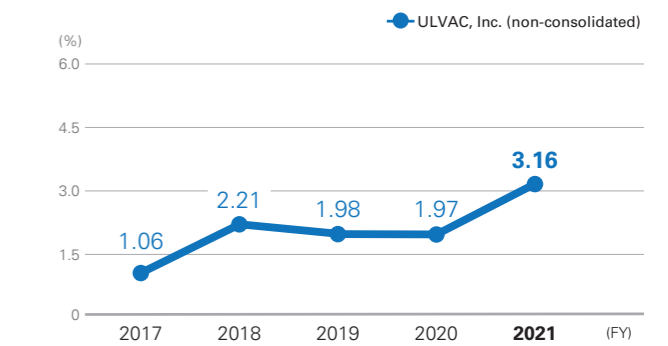
Rate of lost-work-time injuries



*Source for average data for all industries and manufacturing industry: "Survey on Industrial Accidents 2021" 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.

For details [P.60](#)

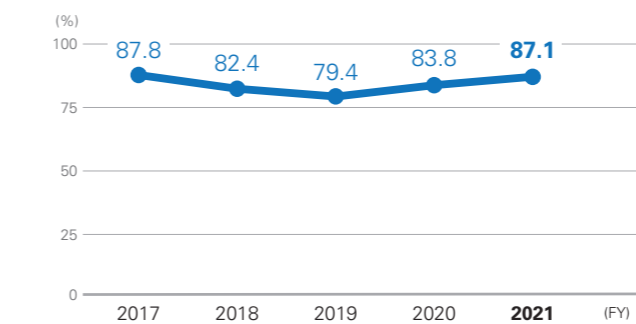
Voluntary retirement rate



We recognize that people are the source of sustainable value creation and our most important asset. Although the number of employees who retired for personal reasons temporarily increased in FY 2021 owing to the introduction of an early retirement system to support job changes, we will continue to promote the retention of human resources through various initiatives.

For details [P.55](#)

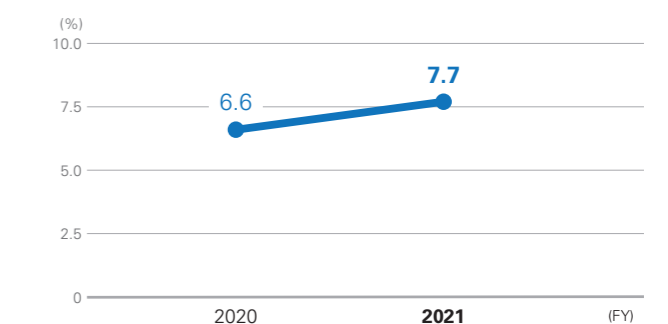
Localization ratio of presidents of overseas subsidiaries



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 while also promoting assignment of local employees to other important positions overseas.

For details [P.55](#)

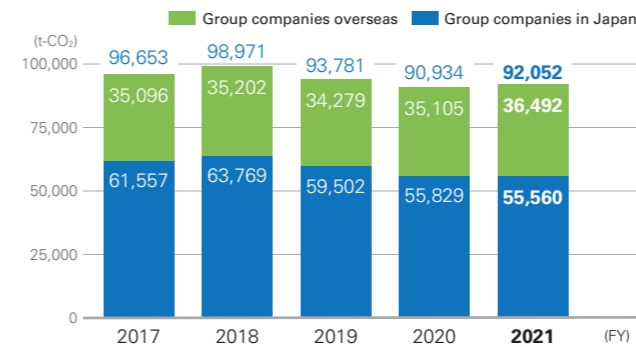
Ratio of women in managerial positions



We are making Group-wide efforts to actively promote women to managerial positions with the target of "10% or more by June 2026" and will implement human resources policies that take into consideration the need for a working environment that is pleasant for women and motivates them to seek promotion.

For details [P.55](#)

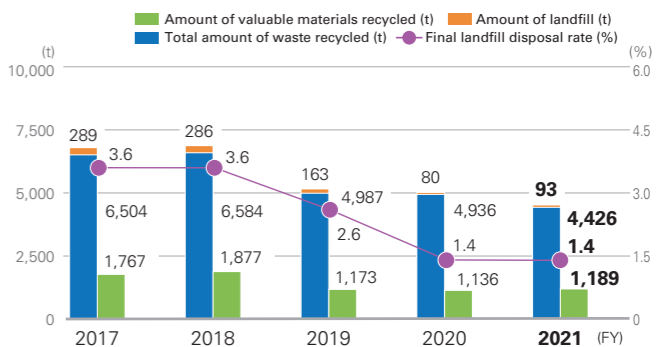
CO₂ emissions



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.63](#)

Waste emissions



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

For details [P.63](#)

Commitment of Top Management

Taking on the challenge of creating and co-creating innovation with vacuum technology at the core, with a view to a sustainable future for people and the planet

Setsuo Iwashita

President and Chief Executive Officer



Pioneering the future with vacuum technology, inheriting the spirit of our founders

ULVAC was founded with the aspiration of "contributing to industry with vacuum technology" at a time when Japan was engaged in post-war reconstruction. We started manufacturing vacuum equipment, which no one else in Japan could manufacture at the time. Subsequently, by embracing a succession of new technologies corresponding to the changing structure of industries, we have expanded our application fields to include chemicals, pharmaceuticals, food, metallurgy, semiconductors and electronic devices, and flat-panel displays, opening up new markets. We have achieved growth while supporting people's lives with vacuum technology, contributing to the business expansion of client companies and the advancement of industry and science, and celebrated ULVAC's 70th anniversary on August 23, 2022. I would like to take this opportunity to express my heartfelt gratitude to all our stakeholders for their support, which has enabled our business to grow to what it is today.

Inheriting the spirit of sustainability that our founders aspired to resolve social issues of the time through technology, the ULVAC Group will continue to boldly take on the challenge of pioneering a sustainable future for people and the planet with vacuum technology and continue to provide value as an indispensable enterprise in the world.

Viewing social change as an opportunity for growth and expanding the scope of our value provision

In recent years, the business environment in which the ULVAC Group operates has changed greatly owing to a series of changes that have had a profound impact on society as a whole. The inexorable trend toward digital transformation (DX) and greater use of information and communications technology (ICT) is accelerating, due to factors such as the normalization of remote working, the shift to EVs and the growing use of AI. At the same time, technological innovation is needed to reduce the power consumed by semiconductors and electronic devices, in order to achieve a green society committed to worldwide decarbonization to mitigate the adverse impacts of climate change.

Technological innovation that supports realization of such a society requires 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.

Orders received increased in all businesses. Great increases in both net sales and profit achieved

To summarize the business environment in FY 2021, in the semiconductors sector, the tempo of investment by foundries and logic manufacturers in advanced equipment was vigorous, and investment in semiconductor memories remained at a high level. In the electronics sector, investment in various electronic devices for the realization of a digital society expanded in line with the spread of 5G and investment in power devices also grew in line with the ongoing shift to green energy and EVs. In the flat-panel display (FPD) sector, investment in liquid crystal displays (LCDs) for tablets, PCs, and IT panels for automotive and other applications increased, and moves responding to the transition from LCDs to organic light-emitting diode (OLED) displays continued.

In this environment, the ULVAC Group received orders greatly surpassing the level for the previous fiscal year and achieved significant increases in both net sales and profit, exceeding the initial targets.

Regarding FPD production equipment, in particular, orders received increased significantly in response to growing investment in LCDs and OLEDs, with net sales growing markedly from the previous fiscal year. Regarding semiconductor production equipment, orders received increased for both logic and memory, reflecting greater use of the Metal Hard Mask (MHM) process and a continuing high level of investment, respectively. Regarding electronic device production equipment, both orders received and net sales increased, because business negotiations in China with a view to increased production of electronics in that country progressed while investment in power devices and various electronic devices became brisk. Components, industrial equipment, and materials also performed strongly. As a result, orders received for FY 2021 exceeded the levels for the previous fiscal year for all businesses.

In terms of profit, the gross profit margin reached 30.6%, the highest level since the listing of the Company on the stock exchange. This was due to the progress achieved in improving the profit margin by strengthening manufacturing capabilities and the increase in net sales, despite the impact of higher prices of parts and materials and longer procurement lead times. The operating profit margin was 12.5%, up 3.1 percentage points from the previous fiscal year.

Commitment of Top Management

As a result, for FY 2021, on a consolidated basis, orders received increased 35.8% year on year to ¥270.1 billion, net sales increased 31.8% to ¥241.3 billion, operating profit increased 74.8% to ¥30.1 billion, ordinary profit increased 79.2% to ¥32.2 billion, and profit attributable to owners of parent increased 36.3% to ¥20.2 billion.

Strengthen growing businesses and improve profitability by enhancing manufacturing capabilities

The current mid-term management plan, "Breakthrough 2022" (covering the period from FY 2020 to FY 2022), is now in its final year. Initiatives under the mid-term management plan with "investment in development for growth (selection and concentration)" and "profit-oriented management through structural change" as the basic policies made good progress in the past two years, achieving business growth and improved profitability.

Regarding semiconductor production equipment, in the logic field, ULVAC is outperforming market growth owing to an increase in demand for MHM equipment attributable to EUV-related investment as well as the securing of new customers and increased opportunities for entry into other processes. In the memory field, we also maintained a high level of orders received, not only for conventional processes but also for entry into other processes. Thus, the semiconductor production equipment business achieved growth in both the logic and memory fields.

Regarding electronic device manufacturing equipment, investment in power devices and optical devices is accelerating in Japan and China. Especially in China, in response to the government's policy emphasizing domestic production, construction of

factories increased, primarily in coastal provinces. Capturing such demand, the Group continues to achieve high growth. We expect demand for electronic device production equipment in FY 2022 to grow to 1.9 times the level recorded before the launch of the current mid-term management plan (FY 2019).

Regarding FPD production equipment, the shift from LCDs to OLEDs is progressing, buoyed by the trend toward more active investment in IT panels. In FY 2021, we were able to capture the surge in LCD investment, thus securing high orders received. Going forward, we will focus on expanding sales of sputtering equipment for large-substrate OLEDs in response to the full-scale shift to mass production of OLEDs. At the same time, we have begun receiving orders for evaporation roll coaters to realize smaller-sized and larger-capacity EV batteries offering enhanced safety, and we aim to increase orders going forward.

While active investment in technological innovation and increased production is expected in the medium to long term in the semiconductor, electronic device, and FPD fields, ULVAC is focusing on research and development to strengthen its growing businesses targeting these areas so as to increase orders received. Under the current mid-term management plan, ULVAC will continue to strengthen its initiatives to improve profitability by enhancing manufacturing capabilities. To improve productivity, we are reforming our engineering & design, production process, and procurement to strengthen the information system infrastructure. As a result, the gross profit margin improved from 27.3% to 30.6% over the past two years and is improving even in an environment affected by longer delivery lead times and rising prices for parts and materials. In July 2022, ULVAC, Inc. merged with ULVAC TOHOKU, Inc. and ULVAC KYUSHU CORPORATION through absorption-type mergers. By integrating the two production subsidiaries' manufacturing expertise with the expertise of the head office in development and design, ULVAC put in place a structure for accelerating enhancement of manufacturing capabilities. From now on, we intend to strengthen the global cooperation system by coordinating the supply chains we have established in each region, including overseas plants.

Expect to maintain a high level of orders received and increases in net sales and profit

In FY 2022, the final year of the current mid-term management plan "Breakthrough 2022," while, as mentioned above, active investment for technological innovation and increased production is forecast for semiconductor, electronic device, and FPD

production equipment businesses, ULVAC expects to maintain a high level of orders received. Although we expect the impact of longer delivery lead times and higher prices for parts and materials to continue for the time being, we will work to enhance both growth potential and profitability by strengthening research and development and enhancing manufacturing capabilities to respond to the risks.

Based on these predictions, for FY 2022, on a consolidated basis, we forecast orders received of ¥270.0 billion (on a par with FY 2021) and increases in both net sales and profit. Plans call for net sales of ¥250.0 billion (+3.6% year on year), operating profit of ¥34.5 billion (+14.6%), ordinary profit of ¥35.5 billion (+10.2%), and profit attributable to owners of parent of ¥23.0 billion (+13.8%). As a result, the gross profit margin is expected to be 33.0% (an improvement of 2.4 percentage points) and the operating profit margin 13.8% (an improvement of 1.3 percentage points).

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 future needs. ULVAC recognizes that the sharing of profits with the shareholders as one of its most important policies. On the other hand, ULVAC operates in an industry characterized by technological innovation and fluctuating capital expenditure, and intends to enhance its internal reserves to secure sufficient funds for R&D investment in growth fields and establish a stable financial base.

With regard to returning profits to its shareholders, ULVAC's dividend policy is to focus on linkage with business performance and to aim at achieving a consolidated dividend payout ratio of 30% or more. Taking these factors into consideration, it was decided to pay a year-end dividend of 124 yen per share for FY 2021.

What our vision and materiality for the next 10 years aim to achieve

As the world faces various issues of increasing gravity, such as the continuing COVID-19 pandemic, extreme weather events and natural disasters attributable to climate change, increasing geopolitical risks, and supply chain disruptions, we need to reaffirm the role that ULVAC should fulfill in the international community and pursue sustainability of ULVAC and simultaneously that of the planet. In order to further practice sustainable management, taking the opportunity of the 70th anniversary of ULVAC's foundation, we have set our vision of where we want ULVAC to be 10 years from now on the path to our goal for 2050. ULVAC's vision for 2032 is to continue to be a "Field of Potentiality" for the future and we

have identified the materiality to realize this vision. In doing so, we focused on the uniqueness that differentiates ULVAC from others and enhancement of economic, social, and environmental value, while also taking into account the Basic Corporate Philosophy.

The term "Field of Potentiality" alludes to the margin of each person's mind. Having an empty space in one's mind allows one to look to the outside world and absorb more from it. Using the knowledge thus gained, one can venture into the unknown and create the new, transcending preconceived ideas and images. We believe that the ULVAC Group, where passionate people gather, can be a "Field of Potentiality," a source of innovation contributing to resolution of global issues and technologies and products offering true value through co-creation with people connected to the ULVAC Group. Therefore, we placed "promotion of creation and co-creation of innovation with vacuum technology at the core" and "development of diverse human resources and promotion of their advancement; cultivation of resilient organizations" as key issues of materiality.

With a challenging mindset that aims to shift from a business that responds to customers' requests to one that proposes creation of new value for customers and society, we will create innovation through joint development with customers and co-creation with various companies, universities, research institutions, and other organizations.

Furthermore, we aim to create new businesses and markets with next-generation technologies with vacuum technology at the core. In order to achieve these goals, it is essential that we look to the future, transcend national boundaries, think from the perspectives of the planet, society, markets, and customers, develop globally competent human resources with flexible ideas, and transition from a traditional organization, system, and values to an autonomous, self-driven organization with a high degree of mobility and adaptability.

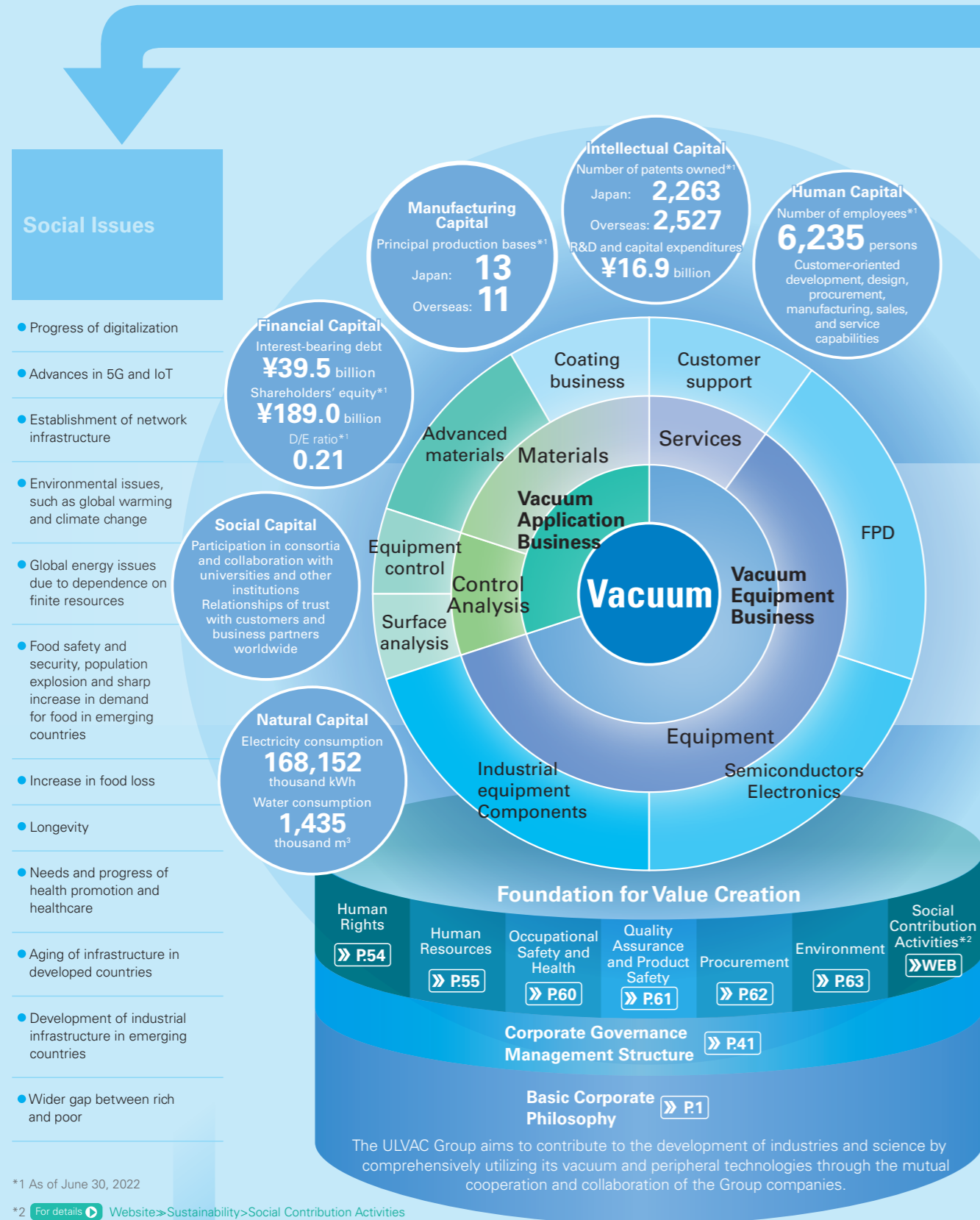
Respect for human rights and responsible behavior in the value chain are also important issues for the ULVAC Group as it has a high percentage of overseas sales and employees. As a comprehensive vacuum product manufacturer, ULVAC is also committed to contributing to a sustainable global environment by working toward a decarbonized society and a circular economy.

We encourage our stakeholders to look forward to ULVAC's further enhancement of corporate value, and ask for your continued support over the long term.



ULVAC's Value Creation <Process>

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



Social Issues

- Progress of digitalization
- Advances in 5G and IoT
- Establishment of network infrastructure
- Environmental issues, such as global warming and climate change
- Global energy issues due to dependence on finite resources
- Food safety and security, population explosion and sharp increase in demand for food in emerging countries
- Increase in food loss
- Longevity
- Needs and progress of health promotion and healthcare
- Aging of infrastructure in developed countries
- Development of industrial infrastructure in emerging countries
- Wider gap between rich and poor

*1 As of June 30, 2022

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

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

Vision 2032

Continue to be a "Field of Potentiality" for the Future

» P.25

Priority Domains

» P.17

- Realization of the digital society, fundamental technology for realization of the digital society
- Energy management, next-generation energy
- Healthcare, life innovation
- Construction, social infrastructure, mobility

Materiality

» P.27

- Promotion of creation and co-creation of innovation with vacuum technology at the core
- Development of diverse human resources and promotion of their advancement; cultivation of resilient organizations
- Respect for human rights and responsible conduct in the value chain
- Contribution to a sustainable global environment

Value Creation

Contribution to realization of a sustainable society*3

- Materiality** **Promotion of creation and co-creation of innovation with vacuum technology at the core**
- Initiatives**
- Value creation by leveraging a global network
 - Contribution to realization of a sustainable society through products and services
 - Strengthening research and development capabilities
 - Strategic utilization and strengthening of intellectual property
- ESG**
- SDGs**
-

Value ULVAC Offers to Stakeholders

Customers

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

Shareholders and investors

Realization of long-term growth and enhancement of corporate value, and greater returns

Suppliers

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

Local communities

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

Employees

Workplaces offering job satisfaction

- Materiality** **Development of diverse human resources and promotion of their advancement; cultivation of resilient organizations**
- Initiatives**
- Strengthening of the management foundation and enhancement of financial performance
 - Development of global human resources and promotion of their advancement
 - Diversity & inclusion
 - Health and productivity management
 - Workstyle reform
 - Corporate governance and management structure
 - Compliance
 - Risk management
- ESG**
- SDGs**
-

- Materiality** **Respect for human rights and responsible conduct in the value chain**
- Initiatives**
- Human rights
 - Quality management and product safety
 - CSR procurement
 - Occupational safety and health
 - Local contribution
- ESG**
- SDGs**
-















- Materiality** **Contribution to a sustainable global environment**
- Initiatives**
- Addressing climate change
 - Environmental management
 - Environmentally friendly products (Green Products)
 - Research and development of products and services such as manufacturing equipment for low-power-consumption devices, power devices, lithium-ion batteries, etc., that contributes to innovation of environmental technology and promotion of low-power consumption of products
- ESG**
- SDGs**
-

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

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.

Social issues	Market opportunities	ULVAC's business activities		ULVAC's six businesses				Main value offered by the business	Customers and their products	Contribution to resolution of principal social issues*
		Priority domains	Semiconductor production equipment	Electronic device production equipment	FPD production equipment	Components	Industrial equipment			
<ul style="list-style-type: none"> Progress of digitalization, advances in 5G and IoT, and establishment of network infrastructure 	<ul style="list-style-type: none"> Aspiration for the progress of all industries and technological innovation Diversification of semiconductor and electronic device applications and needs Trend toward devices that are smaller, faster, larger-capacity and consume less power 	<p>Realization of the digital society Autonomous driving, agriculture, healthcare, virtual currency, etc.</p>  <p>Fundamental technology for realization of the digital society IoT, cloud, AI, robots, big data, drones</p> 	See >> P.35	See >> P.36	See >> P.37	See >> P.38	See >> P.40	<p>Response to new semiconductor and electronic device fields and needs by applying vacuum deposition and other technologies and R&D of cutting-edge processes through co-creation with customers</p>	<p>FPD, semiconductor, electronic equipment, and device manufacturers</p> <p>Semiconductors: Memory, logic DRAM, PCRAM, 3D-NAND, CPU, etc.</p>  <p>Functional devices: Sensing, communication (5G), display MEMS, SAW/FBAR devices, LCD, OLED, etc.</p> 	<p>Contribution to realization of an advanced, convenient, safe and secure, digital society</p> 
<ul style="list-style-type: none"> Environmental issues, such as global warming and climate change Global energy issues due to dependence on finite resources 	<ul style="list-style-type: none"> Progress of renewable and low-carbon energy systems Improvement in energy conversion efficiency 	<p>Energy management, next-generation energy</p> 	See >> P.39	See >> P.39	See >> P.39	See >> P.39	See >> P.39	<p>Enhancement of performance of solar cells and power devices by vacuum deposition, ion implantation and other technologies, contribution to reduction of power consumption of various devices</p>	<p>Solar cell manufacturers, battery manufacturers, etc.</p> <p>Energy: Heat generation, power storage, conversion Solar cells, secondary batteries (lithium ion batteries etc.), power devices, magnets for wind turbines, etc.</p> 	<p>Contribution to creation of a sustainable society by power generation, energy storage and energy saving</p> 
<ul style="list-style-type: none"> Food safety and security, population explosion and sharp increase in demand for food in emerging countries, increase in food loss Longevity, needs and progress of health promotion and healthcare 	<ul style="list-style-type: none"> Longer preservation of food and pharmaceuticals, volume reduction 	<p>Healthcare, life innovation</p> 	See >> P.39	See >> P.39	See >> P.39	See >> P.39	See >> P.39	<p>Longer life and volume reduction of freeze-dried food, vaccines, drugs, etc. by vacuum freeze drying and other technologies</p>	<p>Food manufacturers, pharmaceutical manufacturers, etc.</p> <p>Foodstuffs, pharmaceuticals: Freeze drying Freeze-dried foods, emergency provisions, supplements, vaccines, etc.</p> 	<p>Contribution to human health, the future of medicine, and realization of a sustainable society with minimal food loss by means of safe and secure foods and pharmaceuticals</p> 
<ul style="list-style-type: none"> Aging of infrastructure in developed countries Development of industrial infrastructure in emerging countries Wider gap between rich and poor 	<ul style="list-style-type: none"> Development of safe, secure and convenient infrastructure 	<p>Construction, social infrastructure, mobility</p> 	See >> P.39	See >> P.39	See >> P.39	See >> P.39	See >> P.39	<p>Enhancement of performance of industrial materials and response to new materials by applying vacuum heat treatment and other technologies</p>	<p>Chemical and materials manufacturers, steelmakers, transportation equipment manufacturers, etc.</p> <p>Industrial materials: Heat treatment Glass building materials, industrial materials, materials for transportation equipment, heat exchangers, etc.</p> 	<p>Contribution to creation of a sustainable society that is safe and secure and comfortable</p> 

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

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

Here & There, Near your side

ULVAC's Vacuum Technology

The ULVAC Group's Basic Corporate Philosophy states, "The ULVAC Group aims to contribute to the development of industries and science by comprehensively utilizing its vacuum and peripheral technologies." As ULVAC manufactures production equipment, the general public rarely see our products. But the products produced using vacuum technology and equipment are integral to people's daily lives. With our vacuum technology, we will continue to be a company needed by society.

AI Artificial intelligence (AI) made possible by advanced, high-speed information processing technology is expected to overcome labor shortages, improve operational efficiency, and increase the value provided to customers. Vacuum technology is used in the production of the **semiconductors** and **electronic devices** that support this innovation.

Hospitals Development of **IoT technology** has improved access to medical care. High-quality **telemedicine** using high-definition displays is becoming available. Vacuum technology is also used to meet growing medical needs, such as for vaccine production and R&D of **sterile pharmaceutical products**.

Data Centers Demand for **data centers** is surging in response to expanding data flows, as teleworking spreads and needs for big data storage. Vacuum technology is used in the production of the **semiconductor memories, logic devices, power devices, and electronic devices** indispensable for data centers.

Electric Vehicles In pursuit of carbon neutrality, the transition to non-gasoline-powered vehicles is accelerating as the world seeks to reduce driving-related CO₂ emissions. Vacuum technology is used in the production of **power devices, electronic devices, high-performance batteries, high-performance magnets, and other parts** at the heart of EVs and other **electric vehicles**.

Vacuum Circuit Breakers The aging of infrastructure in developed countries and the need for industrial infrastructure in emerging countries are issues that demand attention. Vacuum technology is key to improving the performance of the **vacuum circuit breakers** in power receiving and transforming facilities, **heat exchangers** of air conditioning equipment, and other equipment to ensure safety, security, and efficient maintenance.

- Semiconductor
- Electronic Device
- Components
- Materials

- Semiconductor
- Electronic Device
- FPD
- Industrial Equipment
- Components
- Materials

- Semiconductor
- Electronic Device
- Components
- Materials

- Semiconductor
- Electronic Device
- FPD
- Components
- Materials

- Industrial Equipment
- Components

- Semiconductor
- Semiconductor Production Equipment
- Electronic Device
- Electronic Device Production Equipment
- FPD
- FPD Production Equipment
- Industrial Equipment
- Industrial Equipment
- Components
- Components
- Materials
- Materials

Wind Power Generation

Renewable energy has a low impact on the global environment and is not depleted. **Wind power generation** is a major renewable. Vacuum technology is used in the production of the **power devices** and **high-performance magnets applied in wind turbines**.

- Semiconductor
- Electronic Device
- Industrial Equipment
- Components
- Materials

Smart Home

Smart homes leverage IoT, AI, and other technologies to achieve greater comfort and convenience. In view of their advantages, they are expected to spread. Vacuum technology is used in the production of the **semiconductors, electronic devices, and displays** that make smart homes possible.

- Semiconductor
- Electronic Device
- FPD
- Components
- Materials

Freeze-dried Foods/Supplements

- Industrial Equipment
- Components

The need to reduce food waste and food loss has become a pressing issue, in view of global shortages of food. Vacuum technology is used in the food processing industry to **freeze dry** food products and produce nutritional **supplements**.

Drones

The use of **drones in smart agriculture** is attracting attention nowadays, not least as a way of compensating for labor shortages in the agricultural sector. Vacuum technology is used in the production of the **semiconductors, electronic devices, and batteries** essential for drones.

- Semiconductor
- Electronic Device
- Components
- Materials

Solar Cells

Solar power generation is a mainstay form of renewable energy and is playing an increasingly important role in the energy mix. Vacuum technology is used in the production of the **control power devices** applied in solar power generation systems.

- Electronic Device
- FPD
- Components
- Materials

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

Research and Development

Ongoing value creation from a medium- to long-term perspective

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

To continue to provide innovative technologies and products in the ever-changing 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 laying the foundation for long-term sustainable growth underpinned by the latest technologies.

Specifically, we will endeavor to respond swiftly to the progress from 5G to 6G and IoT in line with the proliferation of global network infrastructure and the emergence of the digital society while flexibly addressing social issues, such as global warming and climate change.

Principal themes

- Advanced 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

Relevant SDGs

4 QUALITY EDUCATION

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

17 PARTNERSHIPS FOR DEVELOPMENT

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

On September 22, 2021, ULVAC, Inc. and Tokyo Institute of Technology (hereinafter "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 ad hoc research cooperation, but to further strengthen the collaboration between the company and the university as partners at the organizational level, we set up the Collaborative Research Cluster with the support of the Tokyo Tech Open Innovation Platform.

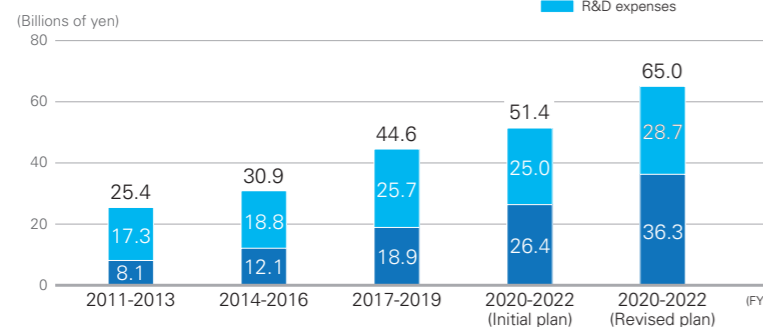
Combining Tokyo Tech's plasma diagnostics technology and AI technology, the Collaborative Research Cluster aims to improve the performance of plasma processing equipment by measuring plasma conditions that could not be measured previously. The synergy created by laboratories from different fields working together is expected to produce new research results that cannot be obtained through ad hoc collaborative research. Additionally, leveraging this organization-to-organization 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 future growth of both ULVAC and Tokyo Tech.

[For details](#) [Website>>News](#)

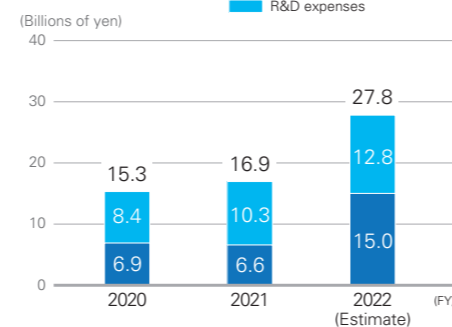
Progress in R&D Investment

¥65.0 billion in R&D investment (R&D Capital Investment and R&D expenses) is planned centering on semiconductor and electronic device production equipment, which is a growing field, for the three years covered by the mid-term management plan.

R&D investment (3-year total)



R&D investment (single year)



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 East 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.

Japan



China



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 further promoting optimal production. Each site of the ULVAC Group has established its own local supply chain. In addition, the ULVAC Group is reestablishing a global supply chain to optimize procurement.

[For details](#) [P.33](#) Mid-term Management Plan "Enhancing Manufacturing Capabilities"

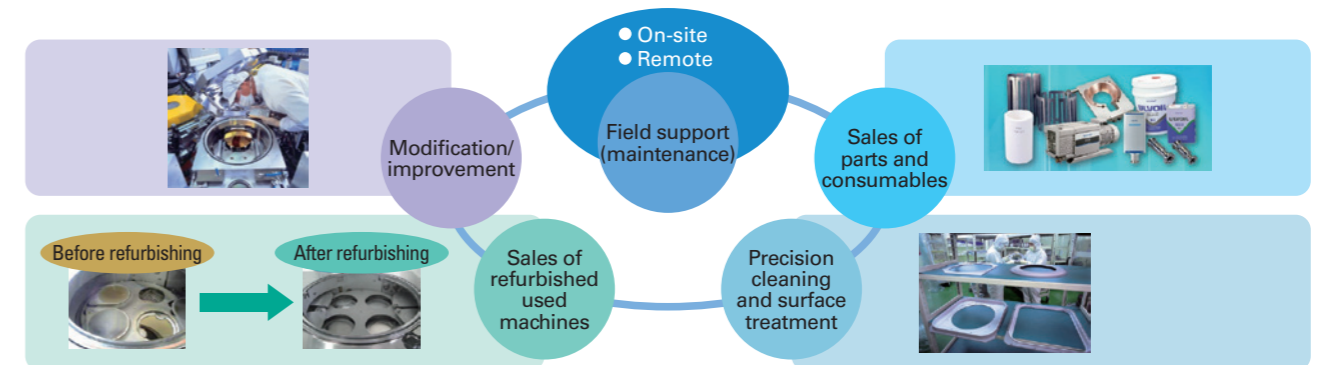
[For details](#) [Website>>Support>Sales Offices](#)

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

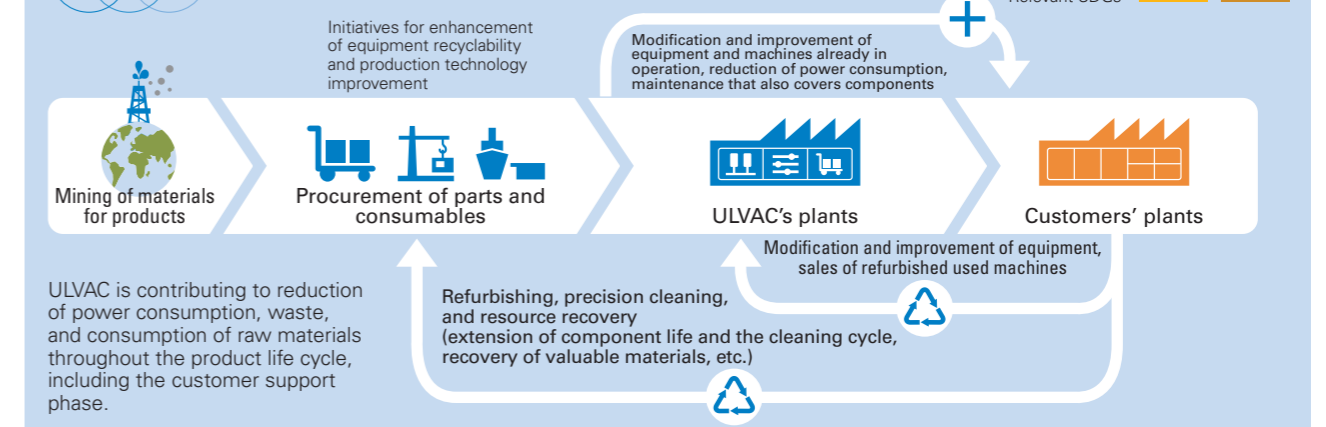
Customer Support

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

Our customer support network in Japan and around the world underpins our customers' production operations in a manner that meets their needs throughout the product life cycle. We offer comprehensive maintenance services covering components and make proposals for modification and improvement. 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 services. We will also expand remote customer support packages utilizing IoT equipment.



Effective utilization of resources throughout the product life cycle and addressing environmental issues





Strengthening Research

Equipping ourselves with advanced technologies that enable us to swiftly address social issues is critically important for ULVAC's sustainable value creation. We will further promote initiatives aimed at achieving innovation and co-creation with various companies and research institutions.

A Field of Potentiality for the Future – Integration of Plasma Diagnostics Technology and AI Technology

Many of the vacuum equipment ULVAC develops, manufactures, and sells use plasma-based technology. At the ULVAC Advanced Technology Collaborative Research Cluster, opened at Tokyo Institute of Technology (hereinafter the "Tokyo Tech"), we are conducting research with the aim of integrating Tokyo Tech's plasma diagnostics technology and AI technology. For plasma diagnostics technology, we are working on the verification of plasma conditions, and for AI technology, we are promoting integration with numerical analysis. Going forward, to improve the accuracy of prediction of plasma conditions, we will use numerical analysis to calculate the plasma distribution in a vacuum chamber etc. We expect there to be synergy with AI technology.

In addition, as an aspect of human resources development, we provide engineering students at Tokyo Tech's ULVAC Advanced Technology Collaborative Research Cluster with opportunities to deepen their understanding of vacuum and plasma processing technologies from an engineering perspective, through experiments and lectures. By "connecting" different fields of research, namely, direct plasma diagnostics and AI technology, via ULVAC's vacuum equipment, we expect to expand the possibilities of vacuum equipment.

Fostering and Education of Technical Human Resources

For technical human resources, we aim to develop human resources possessing broader knowledge that goes beyond that gained through engineering skills education as it is conventionally conducted.

Our particular focus is on developing human resources with an awareness of "management" based on "technology." We have invited Professor Shuzo Fujimura, Professor Emeritus of Tokyo Institute of Technology, as an advisor to guide us on "Management of Technology (MOT)." Lectures start by encouraging trainees to rethink the meaning of the terms that we use every day, such as by clarifying the difference between "research" and "development" and between "science" and "technology," and are designed so that trainees learn what they need to know in order to increase the probability of innovation. For us to be able to develop the products required by customers, development of human resources as well as improvement of organizational quality are indispensable. Through these initiatives, ULVAC will further contribute to the development of industry and science as a comprehensive vacuum product manufacturer.

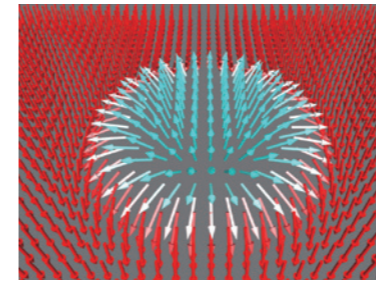
Diversity in Technical Human Resources

In FY2021, Sakae Inayoshi, an employee of ULVAC's Institute of Advanced Technology, was awarded the title of "Shinkuu no Takumi" by the Japan Society of Vacuum and Surface Science (Award to the full membership of the Society for devoting many years to vacuum-related technology related to the Society or for pioneering the development of original vacuum-related technology). The award is in recognition of her contributions over many years to vacuum technology and her research on "development of surface treatments for various vacuum materials and evaluation of outgassing characteristics." Inayoshi is the first woman to receive this award since the title of "Shinkuu no Takumi" (Award to the full membership of the Society for devoting many years to vacuum-related technology related to the Society or for pioneering the development of original vacuum-related technology) was established in 2008 on the 50th anniversary of the founding of the Vacuum Society of Japan, the predecessor of the Vacuum Society of Japan and Surface Science. Ever since its foundation, ULVAC has sought to inculcate a corporate culture according prime importance to the technological development that underpins equipment manufacturing. Inayoshi succeeded to the research started by Sonoko Tsukahara, who served as the director of the former Tsukuba Institute for Super Materials from 1989 to 1994, and she has conducted research on gas emission measurement and development of surface treatment technology for 30 years. This award attests to her commitment to R&D. As greater participation of women in science and technology has emerged as an issue in recent years, ULVAC will continue to promote the advancement of women.

Initiatives for the SDGs – Regenerative Medicine, Energy Sector, etc.

The ULVAC-Osaka University Joint Research Laboratory for Future Technology is conducting research initiatives that address the SDGs. "Freeze-dry preservation of platelet-rich plasma using spray-freeze-drying (Micro Powder Dry(TM)) (joint research with the Graduate School of Medicine, Osaka University)" is expected to be applicable to regenerative

and Development Capabilities



Conceptual diagram of a magnetic skyrmion
Note: The arrows represent magnetic spins and the center represents skyrmions (magnetic quasiparticles that appear inside a magnetic material).

[For details](#) ▶ [ULVAC-Osaka University Joint Research Laboratory for Future Technology](#)

medicine. For "Development of emerging computing method utilizing magnetic skyrmion (joint research with the Graduate School of Engineering Science, Osaka University)," magnetic films formed by vacuum deposition technology are being applied to process information with zero energy.

In addition, in collaboration with the Graduate School of Engineering, Osaka University, we are conducting basic research on circularly polarized light sources for direct cancer detection using endoscopes, SiC-MOS for power devices, and GeSn light-emitting semiconductors for silicon photonics applications. Moreover, as a unique theme using the Co-Creation Program, we are also conducting R&D of InP-based quantum dots applicable to high color rendering light sources.

With regard to education and human resources development, within the framework of industry-academia collaboration as part of the Course of Industry-University-Government Co-Creation of Osaka University, we offer Japan's first corporate co-creation program and accept students on master's and doctoral courses who seek to develop not only research skills integral to the academic foundation conventionally fostered by universities but also the

ability to adopt a panoramic perspective encompassing business development, including market exits and roadmaps, as well as collaborative skills essential for management of joint research. Through these industry-academia joint research activities (internship on campus), we are contributing to society.

Industry-Academia-Government Collaboration –Toward Technological Innovation for Quantum Computers

In the "Development of Integration Technologies for Superconducting Quantum Circuits," which is one of the projects of the Moonshot Research and Development Program promoted by the Japan Science and Technology Agency (JST) under Goal 6 "realization of a fault-tolerant universal quantum computer that will revolutionize economy, industry, and security by 2050," ULVAC, Inc. and ULVAC CRYOGENICS INCORPORATED are in charge of developing the refrigeration system specialized for quantum computing.

Whereas conventional computers are thought to be approaching their limits, quantum computers are attracting attention because of their potential ability to meet the exploding demand for various types of information processing. However, a refrigeration system that cools superconducting elements to near absolute zero (minus 273 degrees Celsius) is indispensable for the proper operation of quantum computers. Through this initiative, we aim to make further contributions to technological innovation and offer solutions to social issues that harness the power of vacuum technology.

Intellectual Property Assets

As a pioneer of vacuum technology in Japan, the ULVAC Group has accumulated intellectual property rights and know-how in many vacuum-related fields over the past 70 years.

The vacuum-related intellectual assets accumulated within ULVAC, ranging from equipment, such as vacuum freeze-drying equipment for pharmaceutical applications and semiconductor manufacturing equipment, to materials are expected to be applied to new technologies in the future.

With vacuum technology at its core, the ULVAC Group will continue to create and utilize intellectual property assets for the advancement of industry and science.

Basic Policy

The basic policy on intellectual property assets is "to develop and enhance the business environment, strengthen the competitiveness of the entire ULVAC Group, and enhance corporate value through intellectual assets." To accomplish this basic policy, we are implementing four measures.

1. Respect intellectual property rights of other companies
2. Utilize intellectual property information (IP landscape) for business strategy
3. Link business, development, and intellectual property strategies (trinity strategy)
4. Implement centralized management of intellectual property of the entire Group

[For details](#) ▶ [Website](#) > [Research and Development](#) > [Intellectual Assets](#)

Initiatives and Structure for Intellectual Assets

- Intellectual Property Strategy Committee

The Intellectual Property Strategy Committee has been established as an organization to discuss Group-wide IP strategies. The committee is chaired by the director in charge of innovation and is working closely with the Board of Directors. Members include responsible personnel of departments and Group companies, and in formulating intellectual property strategies, the committee adopts a bird's-eye view of the entire Group.

Feature 2 Vision 2032

Continue to Be a "Field of Potentiality" for the Future

The ULVAC Group celebrated its 70th anniversary on August 23, 2022. Taking the opportunity of this anniversary, we have formulated "Vision 2032," the ideal configuration of the ULVAC Group 10 years from now. We will continue contributing to the future of people, society, and the planet through vacuum technology and its peripheral technologies.

Vision 2032

Continue to be a "Field of Potentiality" for the Future

Vacuum

It is a completely empty space, a "Field of Potentiality."

When energy is injected to a Vacuum, something new is created.

A potentiality created at empty space, and the same is true of the human mind.

Away from preconceived ideas and constraints, creating a space within oneself.

That's where we apply our will and passion, creating new ideas and new potentials.

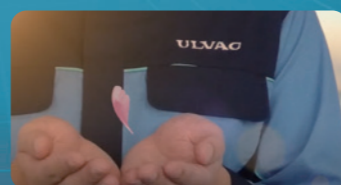
Living every day without anxiety and with peace of mind, a society where no one is left behind and everyone can live their own life, a world where every life can be lived healthily.

Vacuum and passion are the keys to enabling a colorful future. That is what we believe.

For people, for society, and for the planet That has been the philosophy of ULVAC since its foundation.

Listening to everything that surrounds us, a reaction made through our encounters and acknowledged feelings, to create truly valuable technology products. This path was, is, and always will be.

Remaining a "Field of Potentiality" for the future
ULTIMATE in VACUUM
ULVAC



For details of the ULVAC Vision Movie ▶

"Field of Potentiality"



What is Vision 2032?

Taking the opportunity of the 70th anniversary of ULVAC's foundation, we have envisaged the ideal configuration of the ULVAC Group 10 years from now. The following process was used to develop the vision as well as to align the corporate culture and values inherited from ULVAC's foundation with the future.

Formulation Process

27 young project members from five countries spent a year discussing what kind of company ULVAC should be 10 years from now. Initially, the project started with only discussions by project members, but subsequently experts were invited from Tokyo Institute of Technology's Laboratory for Design of Social Innovation in Global Networks (DLab) to participate as facilitators and they provided guidance on scientific methods of organizing and integrating ideas. DLab organized a lecture by a professor in the humanities, which enabled ULVAC project members to gain insights into "vacuum" from a perspective different from that of physics and apply them in discussions. DLab is working with various people, including students and people from companies and public institutions, to design the ideal future, which is different from the future that can be predicted based on scientific and technological developments. ULVAC has been cooperating with the Tokyo Institute of Technology on various initiatives centering on the ULVAC Advanced Technology Collaborative Research Cluster, and as part of this collaboration, ULVAC invited DLab to participate in this project to formulate ULVAC's vision.

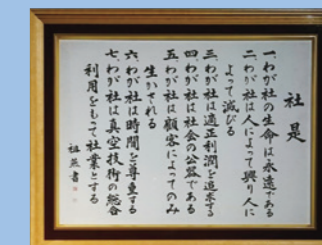
Through discussion, we established a hypothesis, that is, "New ideas and new potentials emerge when we create an empty space in our mind and apply our will and passion to it." This hypothesis was tested from various perspectives, including that of the Basic Corporate Philosophy, Business Philosophy, and the founders' aspirations, such as "Deep Considerations about Vacuum."

Vacuum is a Field of Potentiality: In his book, "Deep considerations about Vacuum" (Hakujitsusha, 2011), Dr. Chikara Hayashi, ULVAC's third president who was also an expert in nuclear physics, described the "Field of Potentiality" as follows: "A vacuum field is a 'field of potentiality' where certain phenomena may occur. That is a most reasonable explanation, in my opinion. The potentiality of a vacuum field is physically the potentiality for change of energy and change of matter, but it is also the potentiality for change of the individual and change of one's mind through a series of changes. And this change in the mind leads to a change of heart of a person (individual). In the case of a group of people (society), it leads to change in the spirit animating society."



Dr. Chikara Hayashi, the third president of the Company

ULVAC's Spirit of Sustainability since the Foundation: ULVAC's Business Philosophy was established in 1966 to codify the Management Philosophy that has guided the Company since its foundation in 1952 and the business operations and actions informed by that Philosophy, with the goal of becoming a leading global company. The spirit of sustainability—encompassing such insights as "Corporate sustainability," "Our people is crucial to the growth of the company," "Pursuing reasonable profits," and "Working for the benefit of society"—has been part of our founding DNA, inherited through the generations down to the present day. In addition, "Depending on customers," "Valuing time," and "Comprehensive use of vacuum technology" can be summarized as "our company leads technological innovation through innovation with vacuum technology at its core."

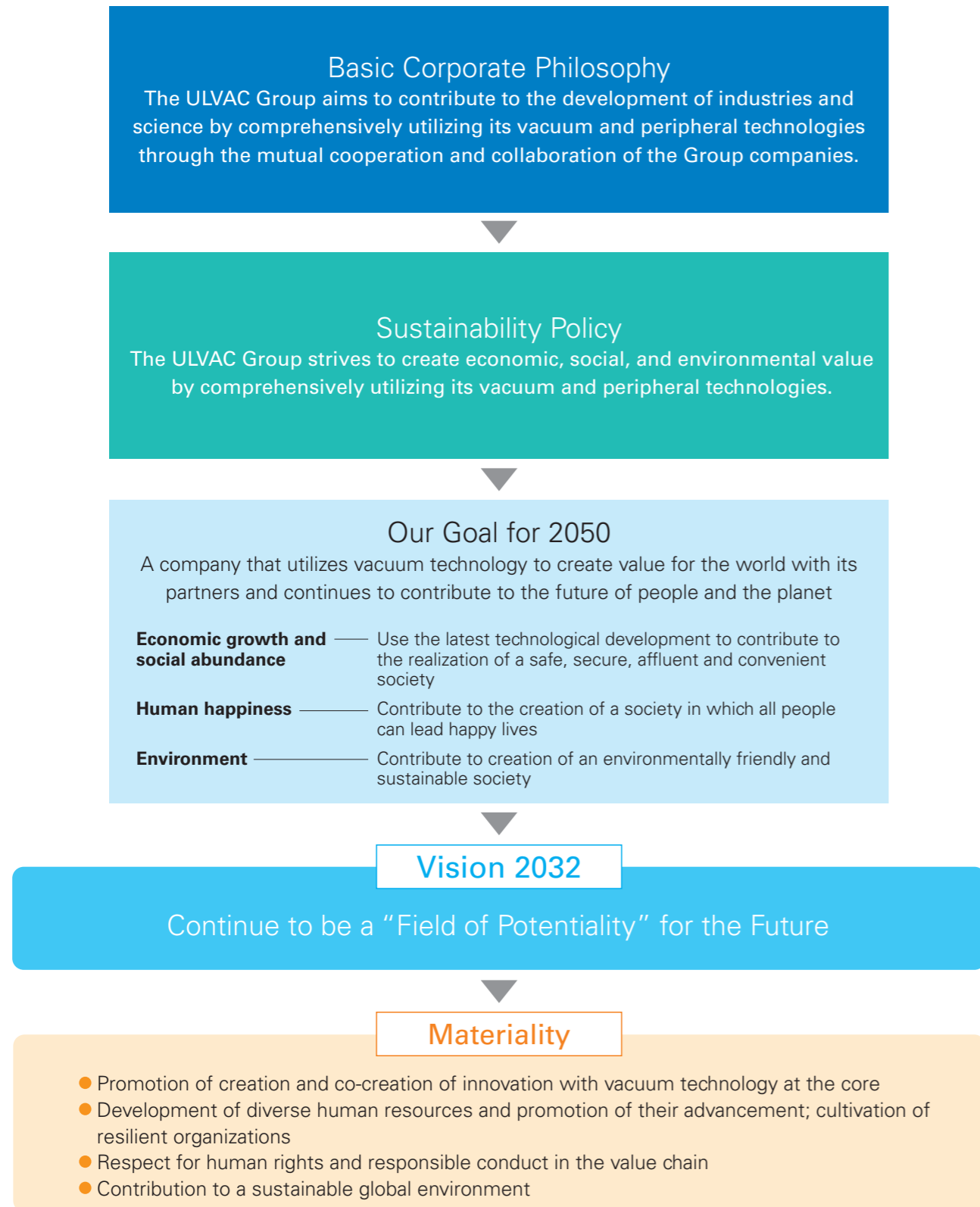


As a result of these comprehensive considerations, the project team concluded that ULVAC should continue to be a "Field of Potentiality" for the future. On this basis, the project team exchanged opinions with ULVAC's management and various internal and external experts, conducted a review, and secured the approval of the Board of Executive Officers and the Board of Directors.

The term "Field of Potentiality" alludes to "the margin of each person's mind." Having an empty space in one's minds allows one to absorb more from the outside world. Using the knowledge thus gained, one can venture into the unknown and create the new. This begins when a person becomes aware of the "Field of Potentiality" within one's mind. We believe that the ULVAC Group, where the energy of such people is gathered, will also become a "Field of Potentiality," which will lead to the creation and co-creation of innovation with vacuum technology at its core that will contribute to a sustainable future. How can we inculcate ULVAC's vision throughout the global workforce? How can each employee take ownership of ULVAC's vision? How can we create fields for unlimited potentialities and link the vision to the next mid-term management plan? We recognize these as issues for the future. We will endeavor to ensure that everyone in the ULVAC Group keeps the vision in mind and continues creating value for people, society, and the planet far into the future.

ULVAC's Sustainable Management

The foundation of all business activities is the Basic Corporate Philosophy stating our aspiration: "to contribute to the development of industries and science by comprehensively utilizing its vacuum and peripheral technologies." 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.

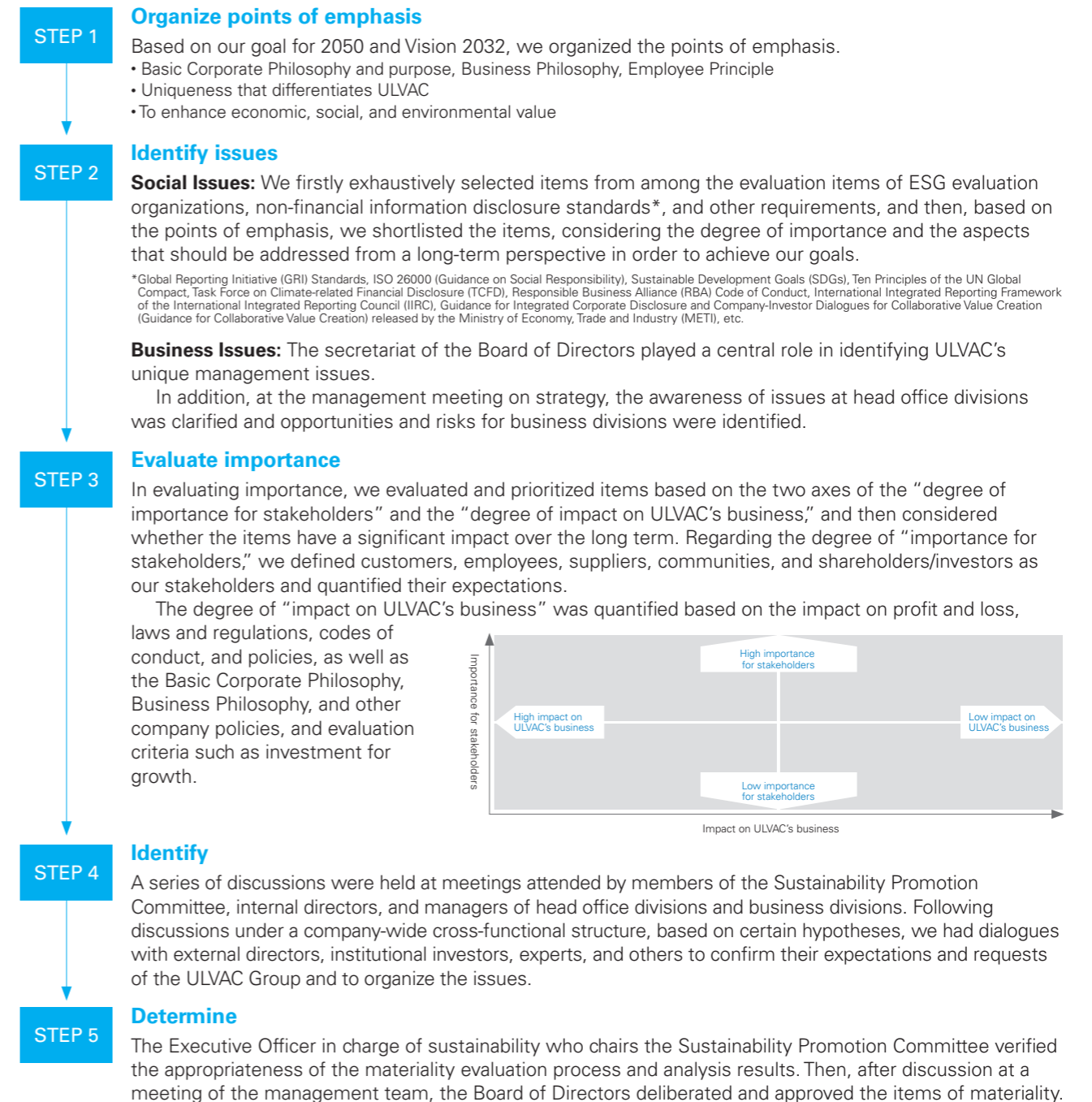


Materiality Identification Process

Basic Approach

In the process of identifying materiality, we conducted an internal review and had in-depth discussions as well as dialogues with external directors, external experts, institutional investors, and others. Reflecting the suggestions obtained, we considered materiality in a broader sense from the viewpoint of enhancement of corporate value and have positioned materiality as "ULVAC's unique management issues for realization of our goal for 2050 and Vision 2032."

Identification Process



ULVAC's Sustainable Management

Promotion Structure

Sustainability Promotion Committee

Meetings of the Sustainability Promotion 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.

Sustainability Task Force Team

As a subordinate organization of the Sustainability Promotion Committee, the General Administration Department takes the lead in planning, implementing, evaluating, and improving the ULVAC Group's sustainability promotion.

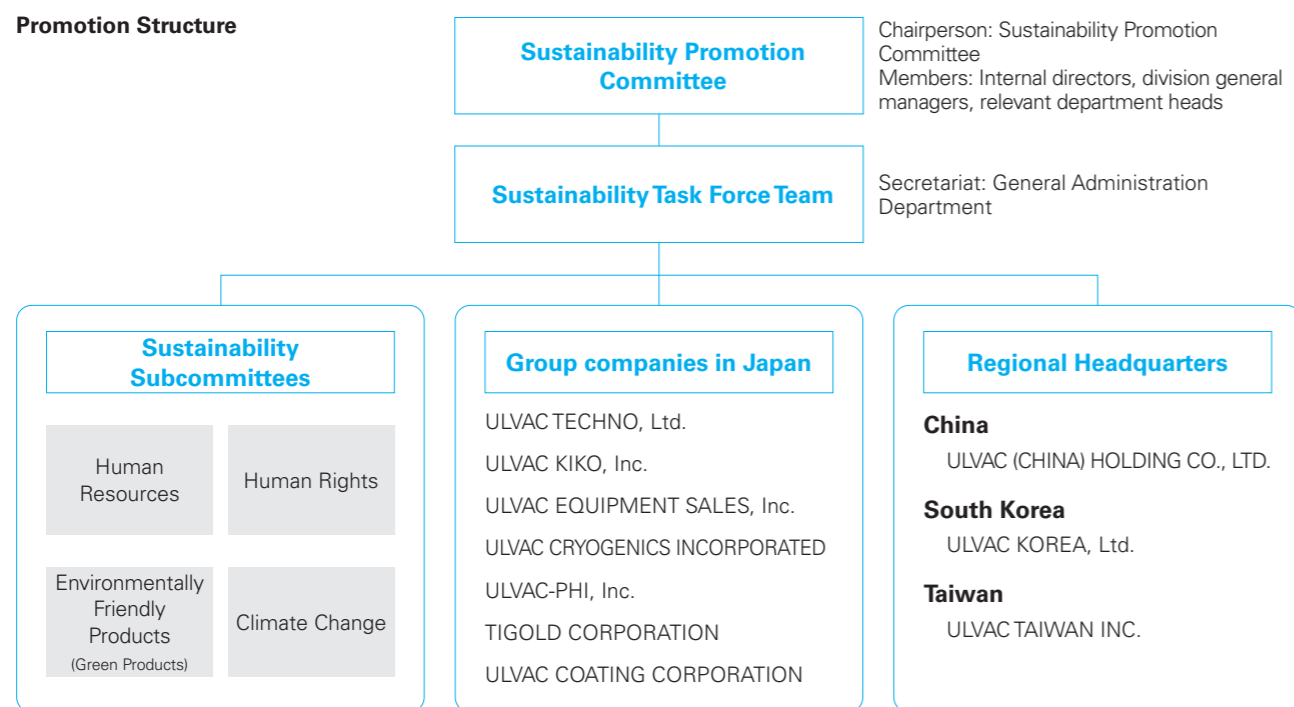
Sustainability Subcommittees

As subordinate organizations of the Sustainability Task Force Team, subcommittees were established on themes such as human resources, human rights, environmentally friendly products (Green Products), and climate change scenario analysis. As forums for cross-organizational working-level discussions and information exchange, subcommittees have discussions and make recommendations. In particular, on human resources and human rights, External Director Yoshimi Nakajima attends in subcommittee meetings as an advisor and subcommittees are receiving her advice on how best to promote activities.

Group Companies in Japan and Regional Headquarters

Information sharing, reporting, and discussions are held monthly with persons in charge of sustainability at individual companies on the content of their activities, and in particular on themes to be addressed across the Group.

Promotion Structure



Participation in 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. By complying with and putting into practice the Ten Principles of the UN Global Compact, we will further promote responsible management as a global company.



Endorsing the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations

ULVAC has announced its endorsement of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and has joined the TCFD Consortium. Based on the TCFD recommendations, ULVAC will proactively disclose information on both the risks and opportunities that climate change poses to its business from the perspective of strategy, risk management, and corporate governance.



Initiatives Aimed at Sustainable Development Goals (SDGs)

ULVAC will contribute to the achievement of Sustainable Development Goals (SDGs) and the realization of a sustainable society through the initiatives to address materiality.



External Recognition

MSCI Japan ESG Select Leaders Index

The MSCI Japan ESG Select Leaders Index is constructed by selecting Japanese companies that have high Environmental, Social, Governance (ESG) performance from among the constituents of the parent index (MSCI Japan IMI Top 700 Index; top 700 Japanese companies by market capitalization), and targets 50% of the free float-adjusted market capitalization of each GICS** Sector in the parent index. ULVAC has been selected as a constituent of the MSCI Japan ESG Select Leaders Index since 2017.

2022 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX

*GICS: Global Industry Classification Standard
THE INCLUSION OF ULVAC, INC. IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF ULVAC, INC. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

FTSE Blossom Japan Sector Relative Index

The FTSE Blossom Japan Sector Relative Index, developed by FTSE Russell, which is a subsidiary of the London Stock Exchange, is designed to measure the performance of Japanese companies that demonstrate strong Environmental, Social and Governance (ESG) practices. This index is constructed so that industry or sector weights align with the Japanese equity market. The index also supports climate transition to a low carbon economy by evaluating companies' climate governance and climate change efforts with TPI Management Quality Score*.



*TPI Management Quality Score: the quality of companies' management of their greenhouse gas emissions and of risks and opportunities related to the low-carbon transition. FTSE Russell (Registered trademark of FTSE International Limited and Frank Russell Company) hereby certifies that ULVAC, Inc. has qualified for inclusion in the FTSE Blossom Japan Sector Relative Index as a result of independent research. The FTSE Blossom Japan Sector Relative Index is widely used to create and evaluate sustainable investment funds and other financial products.

S&P/JPX Carbon Efficient Index

The S&P/JPX Carbon Efficient Index developed by S&P Dow Jones Indices and the Tokyo Stock Exchange is designed to measure the performance of companies in the Tokyo Stock Price Index (TOPIX), while overweighting or underweighting those companies that have lower or higher levels of carbon emissions per unit of revenue and based on their environment-related disclosure.



Certified Health and Productivity Management Organization

This program recognizes corporations that have a particularly exceptional record in the area of health and productivity management. The Nippon Kenko Kaigi (Japan Health Council) handles certification for the program, which was designed by the Ministry of Economy, Trade and Industry. ULVAC, Inc. has been certified as a Certified Health and Productivity Management Organization (White 500) since 2018. The ULVAC Health Insurance Association has been certified as a Certified Health and Productivity Management Organization (Bright 500), and ULVAC EQUIPMENT SALES, Inc., ULVAC TECHNO, Ltd., ULVAC-PHI, Inc., TIGOLD CORPORATION, and REJ Co., Ltd. have been certified as Certified Health and Productivity Management Organizations.



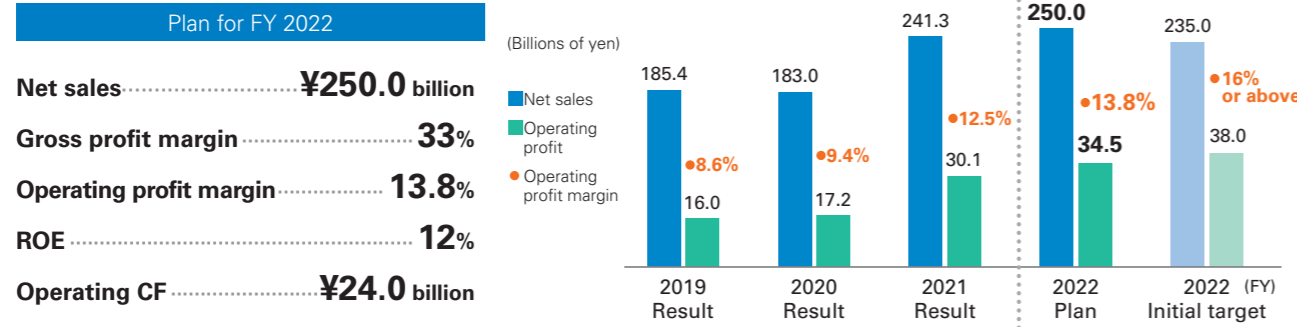
*"White 500" and "Bright 500" refer to the top 500 corporations certified as excellent health and productivity management organizations.

Mid-term Management Plan: Breakthrough 2022

FY 2022 is the final year of the current mid-term management plan "Breakthrough 2022" (covering the period from FY 2020 to FY 2022). While maintaining the basic policies, we have revised the plan for consolidated financial results for the final year in consideration of the market and the business environment.

Basic Policy

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



Specific initiatives in FY 2022

1 Strengthening Growing Businesses		
Further strengthen semiconductor, electronic device, and FPD businesses	1 Semiconductor Production Equipment	Further strengthen sales expansion activities for logic miniaturization process and memory process
	2 Electronic Device Production Equipment	Select five key fields (power devices, optical devices, communication devices, electronic devices, and implementation) on which the Group should focus its efforts, and further strengthen sales expansion activities in these fields by providing combinations of multiple manufacturing systems through modularization to meet customer needs
	3 FPD Production Equipment	Further strengthen sales expansion activities for new products to be developed for large-substrate OLEDs and equipment for EV batteries
Enhance components, materials, and customer support	1 Components	Enter new markets and further strengthen sales expansion activities by developing new products corresponding to the key products that were selected as products on which the Group should focus its efforts
	2 Materials	Enter new markets by developing new products in the semiconductor field and further strengthen sales expansion
	3 Customer support	For businesses such as maintenance, surface treatment, cleaning, and parts sales, further strengthen sales expansion activities in coordination with equipment sales expansion activities and also establish and promote a new business model
2 Strengthening Research and Development Capabilities		
Strengthen product development in response to technological innovation in growing markets by strengthening the marketing structure	1 Expand development investment in the semiconductor, electronic device, and FPD businesses	
	2 Strengthen global development system by promoting joint development of cutting-edge technologies with world-leading companies	
	3 Focus from process development to product development	
3 Enhancing Manufacturing Capabilities		
Improve gross profit margin by enhancing productivity throughout the processes from engineering and design to production	1 Engineering and design reform	Further enhance product quality by strengthening value engineering for design
	2 Reform of the procurement system	Flexibly reorganize the procurement system to respond to longer delivery lead times for parts and materials and in line with value engineering
	3 Production reform	Promote specialization of manufacturing technology of each site through consolidation of the Group's production sites by product
	4 Strengthening the information system infrastructure	Further promote productivity improvement through standardization of each business process and sharing of production information
4 Strengthening the Management Base		
Human resources development and revitalization	Further strengthen human capital through visualization of skills of human resources, development of next-generation leaders, and promotion of diversity	
Promote business unit-based management	Further strengthen collaboration among the Group companies regarding their businesses	
Strengthen the financial base	Further strengthen cash flow management to realize investment in development for the further growth of the Group and improvement of capital efficiency	
Promote sustainability management	1	Contribute to addressing social issues, such as smart society, digital society, and promotion of green energy, leveraging the Group's technologies
	2	Vigorous disclosure information on the risks and opportunities of climate change that affects the Group's business activities, based on the TCFD recommendations

Progress

Under the current mid-term management plan, we consider the trend of technological innovation for realization of a smart society to be a business opportunity leading to the resolution of social issues, and are pursuing various measures in accordance with the basic policies: "Investment in development for growth (selection and concentration)" and "Profit-oriented management through structural change." Against the backdrop of favorable market conditions, in FY 2021, net sales exceeded the final year target, which we revised in

the previous fiscal year, while operating profit, ordinary profit, and profit also exceeded the plan. This is due to vitalization of investment in advanced logic and memory devices, electronics-related investment based on China's domestic production policy, and FPD-related investment to meet increased panel demand, and we believe that semiconductor and electronic device, investment will continue to increase, going forward.

	Initiatives (plan) under the mid-term management plan	FY 2021 results and progress evaluation
1 Strengthening Growing Businesses 2 Strengthening Research and Development Capabilities	Semiconductor Production Equipment	<ul style="list-style-type: none"> • New entry into logic miniaturization process • Resumption of memory investment and entry into new processes
	Electronic Device Production Equipment	<ul style="list-style-type: none"> • Adoption of the de facto standard for the logic processes of 5 nm or below • Increased opportunities for entry into other processes from Metal Hard Mask (MHM) process as a second vendor
	FPD Production Equipment	<ul style="list-style-type: none"> • Expansion of equipment proposals with the modularized uGmni Series • Strengthening of sales and technical support in China ➔ Exceeded the sales plan in response to active investment in power, optical, electronic devices, etc.
3 Enhancing Manufacturing Capabilities	<ul style="list-style-type: none"> • Development for mass production of large-substrate OLEDs • Conversion to a profitable structure 	<ul style="list-style-type: none"> • Progress in investment for development for mass production of large-substrate OLEDs • Start of development of evaporation roll coaters to realize smaller-sized and larger-capacity EV batteries offering enhanced safety • Improvement of profit margin through steady enhancement of manufacturing capabilities
3 Enhancing Manufacturing Capabilities	<ul style="list-style-type: none"> • Integrated reform of engineering & design, procurement, and production ➔ Productivity improvement ➔ Profit margin improvement 	<ul style="list-style-type: none"> • For details, please refer to the next page. <p>For details ➔ P.33 Mid-term Management Plan "Enhancing Manufacturing Capabilities"</p>
4 Strengthening the Management Base	<ul style="list-style-type: none"> • Human resources development and revitalization 	<ul style="list-style-type: none"> • Education Center established
	<ul style="list-style-type: none"> • Promote business unit-based management 	<ul style="list-style-type: none"> • Absorption-type merger of two domestic manufacturing subsidiaries ➔ Enhancement of manufacturing capabilities, including those of overseas plants, by integrating "development and design" of the head office and "manufacturing" of domestic manufacturing subsidiaries
	<ul style="list-style-type: none"> • Strengthening of the information system infrastructure 	<ul style="list-style-type: none"> • Implementation of various system developments to improve productivity
	<ul style="list-style-type: none"> • Strengthening the financial base 	<ul style="list-style-type: none"> • ROE 11.4% • Operating CF of ¥33.9 billion (Shareholders' equity ratio: 53.3%)

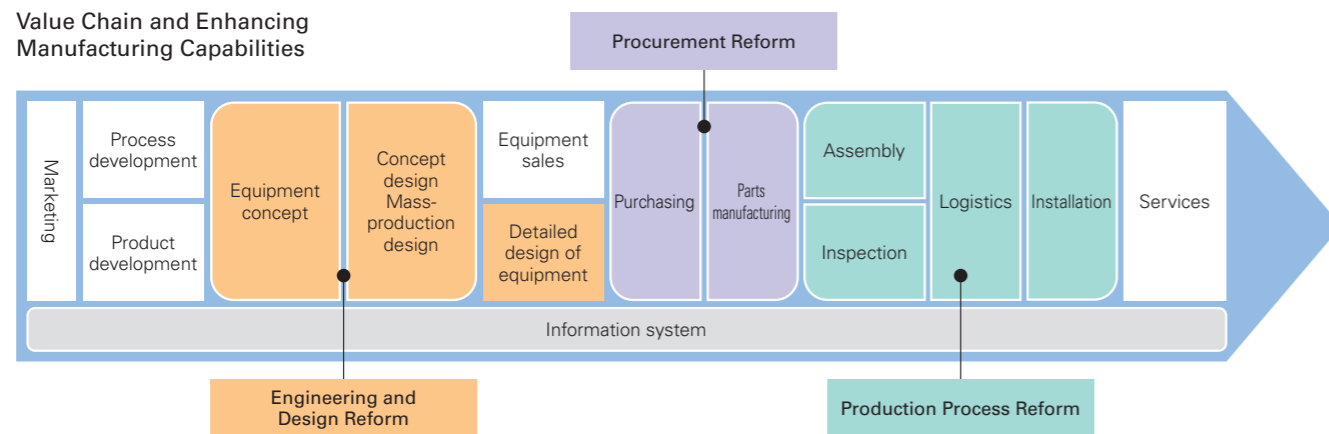
Mid-term Management Plan: Breakthrough 2022

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 engineering and design reform, as equipment 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 reorganize procurement organizations and rebuild the global supply chain to ensure stable quality and procurement and reduce procurement costs. For production process reform, we have implemented initiatives for more efficient manufacturing operations through specialization of production sites and improvement of manufacturing productivity. We are promoting manufacturing education required for modular design and the new way of working. In July 2022, ULVAC, Inc. merged with its production subsidiaries, ULVAC TOHOKU, Inc. and ULVAC KYUSHU CORPORATION through absorption-type mergers. By incorporating the two companies' strengths in production technology, ULVAC will further enhance manufacturing capabilities, and roll out these initiatives across the Group companies including those overseas.

Value Chain and Enhancing Manufacturing Capabilities



Engineering and Design Reform

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

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

Procurement Reform

In procurement reform, we have established the policy of "realizing optimized procurement" and reformed procurement operations to achieve efficient parts procurement that accounts for a large portion of manufacturing cost.

Furthermore, we will rebuild the global supply chain while strengthening coordination with overseas Group companies and actively make efforts to procure quality products from the best suppliers at low cost to ultimately reduce procurement cost.

With regard to design reforms, we have incorporated "modular design" and are promoting the sharing, standardization, and simplification of manufacturing.

Furthermore, we are conducting education to realize quality and functions required by customers at the minimum cost and incorporating an approach emphasizing customer perspectives into design with the aim of realizing manufacturing that provides satisfaction to customers.

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 used 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 lead to dramatic improvement in production technology, improvement in the efficiency of production processes, and enhanced quality and reduced costs.

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 go to the heart of manufacturing, such as production manhours and lead time. We are making company-wide efforts to address challenges while monitoring the trends of such indicators.

Quality Assurance

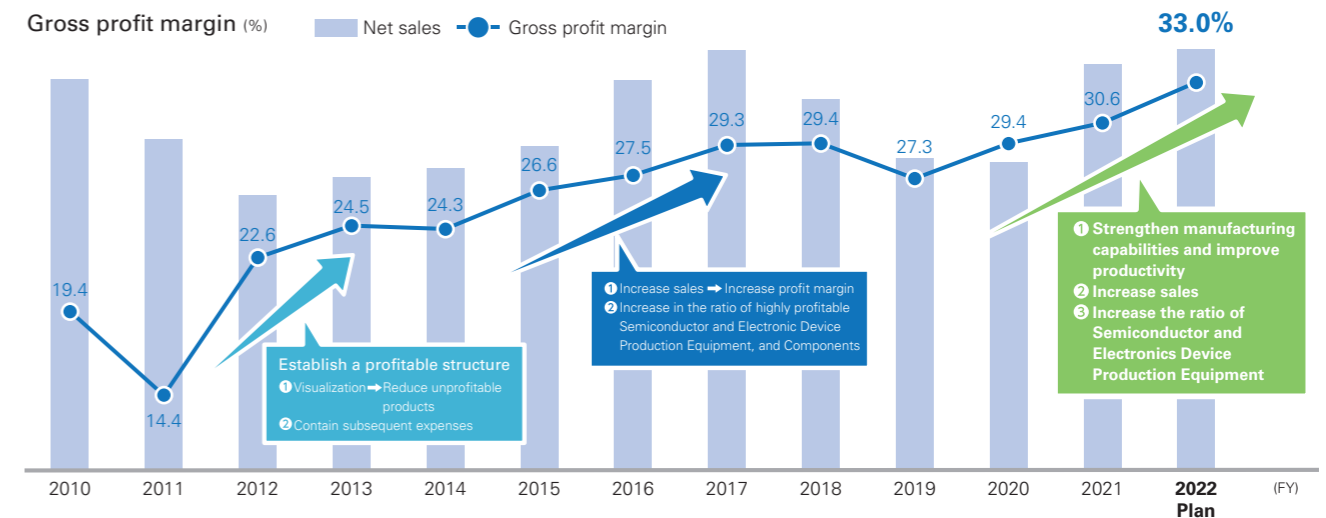
Enhancing manufacturing capabilities is made possible by the foundation of quality and safety of ULVAC products. From the perspective of quality assurance, we have revised the quality policy by rebuilding the approach to manufacturing with the aim of enhancing manufacturing quality.

Based on this policy, we have defined all costs and time that do not create value from a customer perspective as "non-conformity as broadly conceived" or "COPQ (Cost Of Poor Quality)" and are promoting an initiative to control COPQ throughout the Group.

ULVAC Group Quality Policy

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

Steady improvement in gross profit margin by strengthening manufacturing capabilities

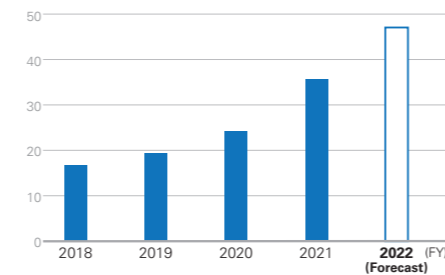


Vacuum Equipment Business 1

Semiconductor Production Equipment

The semiconductor production equipment market is expected to experience continued growth. We will focus development resources on fields where particularly strong growth is expected. We will aim to achieve sustainable growth by capturing market share through the introduction of equipment developed using our proprietary technologies.

Orders received (Billions of yen)



Review of FY 2021

During the first half of FY 2021, orders received were favorable, supported by robust semiconductor capital investment. On the other hand, due to longer lead times and higher prices of parts and materials, we focused on ensuring on-time delivery to customers and cost control. In the second half of FY 2021, capital investment by major memory manufacturers slowed, but supported by capital investment by logic manufacturers and customers in China, we were able to achieve the plan for orders received. Viewing customers' requests for equipment evaluation as an opportunity for business expansion, we vigorously responded to such requests and gained a foothold for new business.

Medium- to long-term outlook of the market environment

In the semiconductor production equipment market, in the short term, memory and logic inventory adjustments are expected to temporarily restrain capital investment, but investment in development by manufacturers of advanced devices and capital investment by customers in China are expected to continue. In the medium- to long-term, investment related to extreme ultraviolet (EUV) lithography is expected to expand in the logic field, and demand for Metal Hard Mask (MHM) process-ready equipment is expected to increase.

Medium- to long-term initiatives

We are working to increase the number of different processes for which our equipment is adopted by our customers. With regard to logic, following entry to the advanced device market, we are aiming for the adoption of our equipment in a wide range of processes for customers' products extending from conventional devices to next-generation ones. In addition, by gaining a track record through the adoption of ULVAC equipment by major semiconductor manufacturers, we expect more potential new customers to take the opportunity to evaluate our equipment, which should lead to the winning of orders. With regard to memory, we aim to have our customers adopt ULVAC equipment in their processes when they transition to the next generation of products.

Recognized Business Opportunities

1. Adoption of equipment when transitioning to next-generation products (change of customers' production processes to accommodate next-generation products) for advanced logic and memory products
2. Adoption of equipment by new customers in the advanced logic field
3. Gaining of market share by introducing equipment developed using proprietary technology

Conceivable Risks

1. Postponement of semiconductor capital investment plan
2. Delay in next-generation device development and application to (investment in) mass production
3. Delay in delivery of equipment due to longer lead times in the supply chain

Measures for Reducing Risks and Maximizing Opportunities

1. Strengthen marketing structure
2. Strengthen the response to development of leading-edge devices and competitiveness of existing products
3. Support development and launch of mass-production by new customers
4. Redevelop and strengthen structure of global supply chain

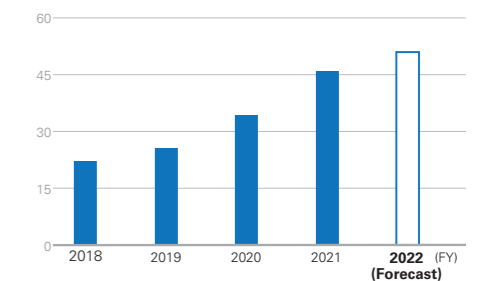
Vacuum Equipment Business 2

Electronic Device Production Equipment

The growth of the electronic device market, which supports progress toward carbon neutrality and digital transformation, is accelerating. In particular, investment in power devices, which are indispensable for the transition to green energy such as EVs and mega solar power generation, has been particularly active.

We aim to further expand business in such vibrant sectors of the electronic device market.

Orders received (Billions of yen)



Review of FY 2021

Investment in power devices and optical devices in the electronic device market gained momentum mainly in Japan and China. In addition, owing to the reinforcement of the sales and technical support systems in China, orders received reached a record high and the sales plan was achieved.

Medium- to long-term outlook of the market environment

Smart cities are attracting attention around the world. Therefore, the market demands the application of cutting-edge information technology and solutions to environmental problems. In order to provide equipment and services that meet customer needs, it is essential to improve the performance and productivity of electronic devices. As factory restructuring has begun around the world, particularly in China, where the shift to production within China is rapidly advancing, we aim to expand business by providing customers with equipment and services that meet market demands.

Medium- to long-term initiatives

To strengthen competitiveness of our product lines, we will enhance the provision of solutions to our customers. For this purpose, we will continue to standardize equipment modules.

In addition, for business development in China and elsewhere in the world, optimization of production is necessary and so we will review our manufacturing bases.

To keep pace with development in the rapidly growing electronic device market, we will strengthen collaboration with key customers and increase opportunities for such initiatives.

Recognized Business Opportunities

1. Diffusion of EVs in pursuit of carbon neutrality
2. Expansion of demand for electronic devices in the China market
3. Evolution of devices for realization of a digital society
4. Acquisition of new customers by leveraging the track record with major customers

Conceivable Risks

1. Delay in delivery of equipment due to longer lead times in the supply chain
2. Intensifying competition
3. Tight supply of parts and materials due to surging capital investment

Measures for Reducing Risks and Maximizing Opportunities

1. Secure parts and materials through systematic arrangements made in advance
2. Develop equipment meeting customer needs and achieve technological differentiation by strengthening marketing systems
3. Improve production efficiency by enhancing manufacturing capabilities

Priority fields

Priority fields	Final products
Communication devices	<ul style="list-style-type: none"> Smartphones
Optical devices	<ul style="list-style-type: none"> Smart devices 3D sensors
Electronic devices (MEMS)	<ul style="list-style-type: none"> In-vehicle displays 5G-ready equipment
Power devices	<ul style="list-style-type: none"> Devices for EV application Industrial robots Energy-saving equipment
Electronic packaging	<ul style="list-style-type: none"> Smartphones High-speed data servers IoT devices

Vacuum Equipment Business 3

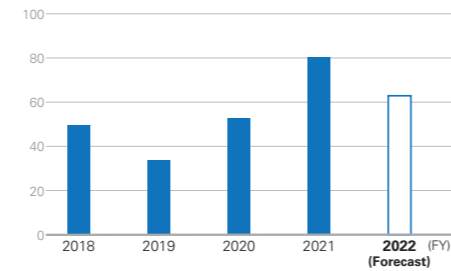


Yasuo Shimizu
Executive Officer,
General Manager of FPD
Division

FPD Production Equipment

Demand for display devices applied as communication tools is increasing. Moreover, in recent years, there has been growing demand for highly efficient energy devices to realize stable energy supply and reduce environmental impacts. By vigorously engaging in business that helps resolve these social issues, we aim to enhance the value of our business and achieve further growth.

Orders received (Billions of yen)



Review of FY 2021

With the increase in stay-at-home demand due to the impact of the COVID-19 pandemic, capital investment for LCDs for high-definition IT panels gained momentum, and we were able to receive more orders than in FY 2020. Net sales were significantly higher than the previous year, partly due to an increase in orders received in the second half of FY 2020, and furthermore, the gross profit margin improved due to initiatives such as “manufacturing capability reform” and other factors. In addition, regarding products that can help mitigate global warming (reduction of CO₂ emissions) and resolve energy issues, which are global issues, we set our sights on the development of evaporation roll coaters that will realize larger-capacity, more compact, and safer EV batteries.

Medium- to long-term outlook of the market environment

In FY 2022, orders are expected to temporarily decline as a natural reaction to strong LCD investment in FY 2021 and because FY 2022 is expected to be a transitional period before full-scale investment in mass production of large-substrate OLED for IT panels takes off. However, demand for flat panels is expected to continue to expand, especially in the IT panel market, as new lifestyles take root, typified by the normalization of remote work, the shift to EVs, and greater use of AI. In addition, the expanding EV battery market will be an attractive opportunity for ULVAC if vacuum technology is adopted to realize smaller size, larger capacity, and improved safety.

Medium- to long-term initiatives

We will continue to invest in R&D of products for the IT OLED market, which is expected to grow. In promoting development of equipment for mass production of large-substrate OLEDs for IT panels, we will leverage our core technologies of large-substrate transportation and for higher-definition displays, and develop production equipment for G8.5-class OLED for IT panels. Moreover, we will continue to promote the shift to IoT of equipment in readiness for smart factories.

Furthermore, our metal lithium vacuum deposition technology has been adopted for the Green Innovation Fund Project led by the Ministry of Economy, Trade and Industry and the New Energy and Industrial Technology Development Organization (NEDO) as a material

technology that will enable practical application of storage batteries with more than double the current battery pack capacity by 2030. By promoting this project and co-creation activities with related companies, we will accelerate commercialization of metal lithium vacuum deposition equipment for EV batteries.

Recognized Business Opportunities

1. Larger display substrates supporting the use of OLED for IT products
2. Increased demand for lithium-ion batteries due to diffusion of EVs
3. Increased technological needs for smaller and higher definition displays in line with the trend toward wearable mobile devices

Conceivable Risks

1. Prolonged adjustment of display supply/demand
2. Delay in the shift and adaptation to next-generation technology
3. Restrictions on exports for security reasons, and supply chain interruption

Measures for Reducing Risks and Maximizing Opportunities

1. Strengthen marketing
2. Jointly develop advanced technology with leading companies
3. Redevelop and strengthen the structure of the global supply chain
4. Improve production efficiency by enhancing manufacturing capabilities

Vacuum Equipment Business 4



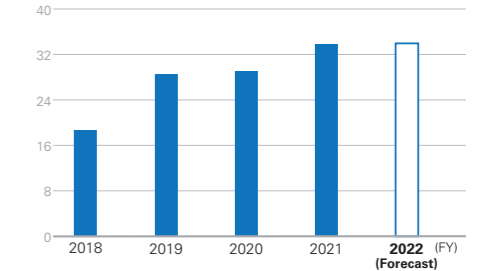
Dr. Ju Hoon Shin
Executive Officer
General Manager of Components
Division

Components

To accomplish the following two missions, we will strive for business growth.

1. Product development and production of components supporting the equipment businesses
2. Stable profitable business of the ULVAC Group

Orders received (Billions of yen)



Review of FY 2021

Semiconductor, electronic device, and EV-related markets remained robust. Special demand in anticipation of longer lead times for parts and materials worldwide resulted in sales of the components business exceeding the sales plan. Moreover, we pursued management reforms to improve profitability in the vacuum pump field, focusing on “optimization of production systems” and “efficiency improvement at production sites,” and achieved the targeted results.

Medium- to long-term outlook of the market environment

We recognize that the semiconductor, electronic device, optical film, FPD, EV, and industrial equipment markets are expected to grow over the medium to long term. Since our major customers in the semiconductor, electronic device, optical film, and FPD fields are manufacturers of vacuum deposition equipment, we expect that the growth of the above-mentioned markets will increase demand for the DC power generators and dry pumps installed in such equipment. In the EV and industrial equipment markets, in addition to helium leak detectors, we also anticipate increased demand for cryocoolers for quantum computers and MRIs.

Medium- to long-term initiatives

Having set four product groups as strategic products—DC power generators, helium leak detectors, dry pumps, and cryocoolers, we will promote vigorous entry into the market and expansion of our market share by developing fundamental technologies and new products. “Quality” is the top priority of the components business. Specifically, we will make cross-organizational efforts at all production bases in Japan and overseas to improve product quality

and production efficiency. Based on these activities, we will build a system capable of providing optimal solutions.

Recognized Business Opportunities

1. Business environment in which the components business can take advantage of synergy with the semiconductor, electronic device, and FPD production equipment businesses
2. Robust market environment for semiconductors, electronic devices, optical films, displays, EVs, etc.
3. Expansion of the measuring instrument market in line with the diffusion of EVs
4. Cultivation of untapped markets (Europe, U.S., China)

Conceivable Risks

1. Delay in delivery due to longer lead times in the supply chain
2. Emergence of latecomer, low-cost manufacturers due to quality improvements

Measures for Reducing Risks and Maximizing Opportunities

1. Release differentiated products leveraging collaboration with customers and partners
2. Concentrate development resources on strategic products
3. Improve production efficiency through optimization of production and procurement
4. Establish sales network for new markets

Components

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

Application example
Examples of installation

Vacuum measurement

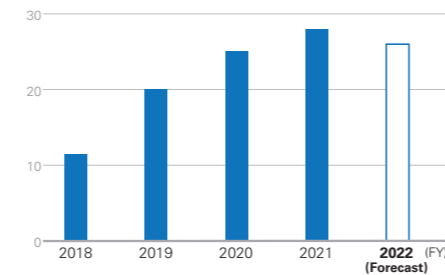
Advanced research, medical, etc.

Vacuum Equipment Business 5

Industrial Equipment

The industrial equipment business is engaged in global business development and expansion of sales of vacuum heat treatment furnaces for brazing used in the manufacture of heat exchangers and vacuum melting furnaces for magnet materials applied in motors mounted on EVs mainly in China. Moreover, we are promoting sales expansion of vacuum freeze-drying equipment used for pharmaceuticals and other applications.

Orders received (Billions of yen)



Review of FY 2021

Establishment of mass-production systems for vacuum furnaces at our bases in China was completed. In addition to export of these furnaces from China to other countries, improved production efficiency was achieved. Moreover, by developing equipment in parallel in China, we were able to realize timely development in the buoyant Chinese market, leading to a higher market share. For vacuum freeze-drying equipment, the Japanese government solicited applications for subsidies to ensure a stable supply of pharmaceutical products in Japan in response to the spread of COVID-19, but due to delay in the selection of companies to receive subsidies, we were unable to achieve the plan for orders received.

Medium- to long-term outlook of the market environment

In response to the global policies toward carbon neutrality, demand for EVs and renewable energy, such as wind power generation and power storage, is expected to continue to increase. Customers in China where related resources are abundant are demanding equipment that will increase their production output. By incorporating customer needs in equipment development, we aim to increase orders. In the medical field, we expect an increase in orders for vacuum freeze-drying equipment due to rising demand for injectable pharmaceuticals.

Medium- to long-term initiatives

Regarding vacuum furnaces, we will further strengthen production systems at our bases in China. At the same time, we will further pursue product safety and quality improvement, aiming to receive orders globally.

With regard to vacuum freeze-drying equipment, our intention is to expand orders by developing models that meet customer requirements and by complying with strict standards and audits required by the industry.

Recognized Business Opportunities

1. Large-scale investment in the magnet industry in response to mass production for EVs by Chinese and Japanese manufacturers
2. Heightened demand for the energy business such as wind power generation and power storage
3. Renewal of customers' facilities to improve equipment functions and productivity in response to increasingly sophisticated quality control of pharmaceutical products

Conceivable Risks

1. Greater security-related export restrictions, etc.
2. Delay in delivery of equipment due to longer lead times in the supply chain
3. Shift of production overseas by domestic pharmaceutical companies

Measures for Reducing Risks and Maximizing Opportunities

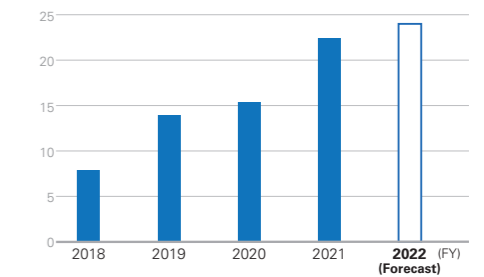
1. Improve performance of melting furnaces for ferromagnetic magnets and promote joint development with key customers
2. Secure the necessary parts and materials through systematic arrangements made in advance
3. Promote overseas business development for vacuum freeze-drying equipment

Vacuum Application Business

Materials

The semiconductor and FPD markets where sputtering target products, the mainstay of the materials business, are used are expected to grow over the long term in line with progress toward a digital society. In collaboration with ULVAC's equipment businesses and by exploiting the material technologies such as powder metallurgy and metallurgy technologies we have cultivated over the years, we aim to expand our business through the global promotion of advanced materials attuned to the progress of devices.

Orders received (Billions of yen)



Review of FY 2021

In the fast-growing semiconductor market, we strengthened sales activities for products for leading-edge semiconductors, especially those used for logic and memory, resulting in brisk orders received. Regarding products for FPDs, orders received increased centering on those for IGZO targets for oxide film semiconductors, which are strategic products, reflecting the buoyant OLED field, and we maintained a high market share in this business field.

Despite the impact of soaring raw material prices, we were able to improve the profit margin compared to FY 2020 by establishing production systems for more efficient manufacturing and improving manufacturing methods.

Medium- to long-term outlook of the market environment

In line with progress toward a digital society, medium- to long-term market growth is expected in the semiconductor, electronic device, and FPD fields. In the semiconductor market, demand is expected to expand not only for consumer applications but also for industrial applications such as data centers. In the FPD market, for home and automotive applications, demand for FPDs to serve as interfaces for smart devices is expected to grow. Demand for thin-film materials such as wiring and semiconductor layers to be incorporated in these devices and new materials to achieve higher device performance is also expected to increase.

Medium- to long-term initiatives

In the FPD market, through joint development with customers and strengthening sales support at bases, we aim to maintain the high share by supplying sputtering target products that respond to technological changes in a timely manner.

In order to increase orders for products for semiconductors, for which high market growth rates are expected, we will endeavor to increase production volumes by improving high-quality and stable

manufacturing technologies to meet customers' quality requirements, optimizing production bases including the semiconductor production lines introduced at manufacturing bases in China, and improving productivity.

Recognized Business Opportunities

1. Increased demand for thin-film materials (sputtering targets) associated with the ongoing diffusion of smart devices
2. Investment in mass-production lines by leading-edge semiconductor device manufacturers
3. Switching to new materials in line with the trend toward higher definition and diversification of FPD panels
4. Rapid growth of the semiconductor market in China

Conceivable Risks

1. Intensifying price competition
2. Delay in next-generation device development and application to mass production (capital investment)
3. Restrictions on exports for security reasons, and supply chain interruption

Measures for Reducing Risks and Maximizing Opportunities

1. Create competitive new products by working with the equipment businesses
2. Strengthen networks through marketing at each base
3. Improve production technology and production efficiency and reinforce production systems at bases in China
4. Promote joint development with leading companies

Other

Surface analyzer business

Whereas university and company laboratories were previously the principal users of surface analyzers, they are 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 and services from customers' perspectives around the world.

Production and sales of semiconductor/FPD mask blanks

Mask blanks are indispensable in the fabrication of electronic circuits for semiconductors and FPDs, which are essential for smartphones, IT panels, IoT, automobiles, communications, and other fields. Demand for mask blanks is trending upward, especially as devices evolve. We will respond to customer requirements to ensure that we ride the wave of market growth.

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, four of whom are 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.

An executive officer system has been introduced, and thus 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 18 internal directors and executive officers. The Board of Executive Officers holds regular meetings once a month, as well as ad hoc meetings

as necessary. By virtue of this structure, we have achieved more flexible and swifter business operations that are appropriate for a rapidly changing business environment, based on a clear expression of the responsibilities and authority of each executive officer.

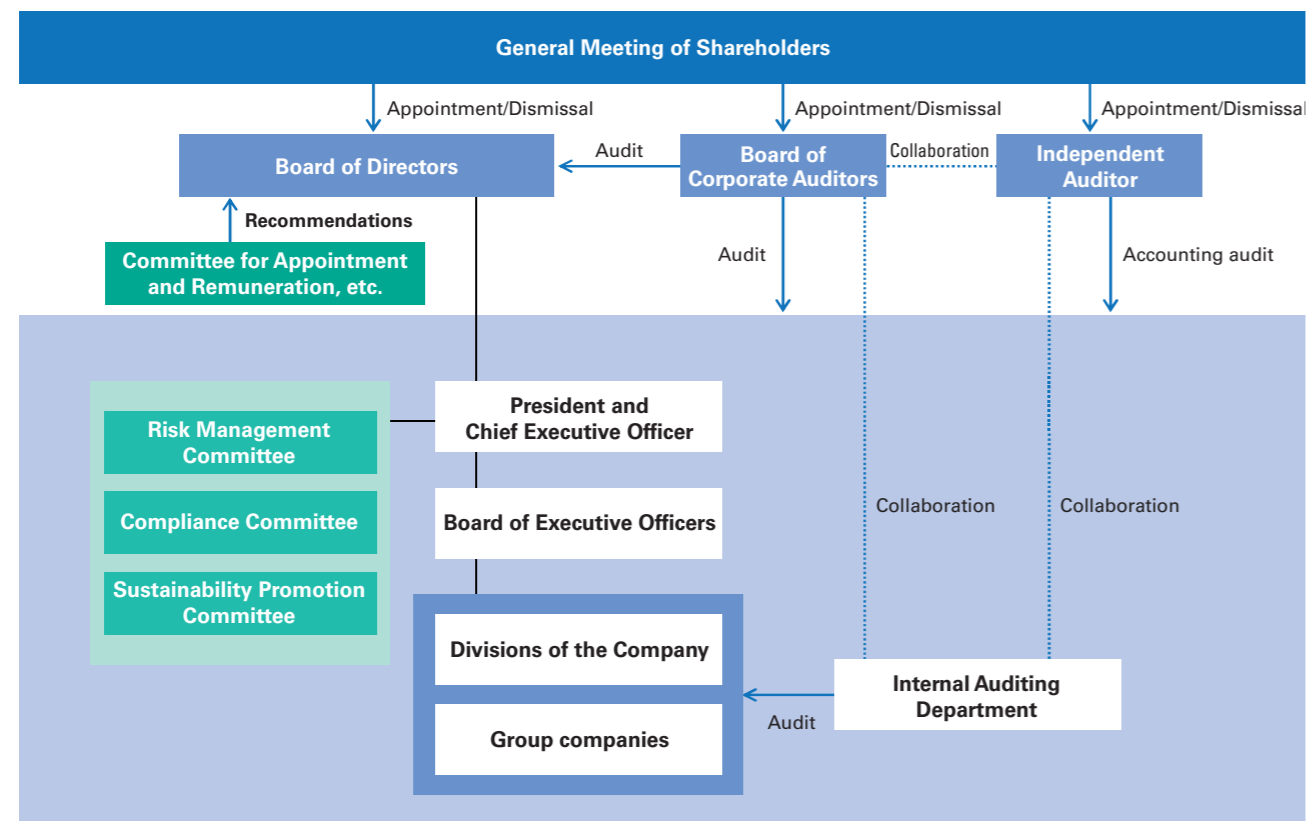
In addition, ULVAC, Inc. has a Board of Corporate Auditors, which performs auditing and supervision of management decision-making and business operations. The Board of Corporate Auditors comprises four members, two of whom are independent external auditors. We ensure full auditing and supervisory functions 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.

Furthermore, we have a Committee for Appointment and Remuneration, etc. for cases requiring 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: one internal director, four independent external directors, and two independent external auditors. The Committee is chaired by an external director. By having such 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 thus increase the effectiveness of the Board of Directors.

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

Corporate Governance Structure



Composition of Key Organizations and Skills Matrix

Title	Name	Composition of key organizations				Expertise/experience*2							
		Board of Directors	Board of Corporate Auditors	Board of Executive Officers*1	Committee for Appointment and Remuneration, etc.	Corporate management	Global	Sales/marketing	R&D/technology/manufacturing	Finance/accounting	Legal affairs/risk management		
President and Chief Executive Officer	Setsuo Iwashita	●		●	●	●	●	●					
Director and Executive Vice President	Mitsuru Motoyoshi	●		●		●	●		●				
Senior Managing Director	Dr. Choong Ryul Paik	●		●		●	●		●				
External Director	Hiroyuki Nishi	●			●	●	●					●	
External Director	Norio Uchida	●			●	●	●						
External Director	Dr. Kozo Ishida	●			●	●		●					
External Director	Yoshimi Nakajima	●			●	●	●						
Auditor	Makoto Ito	●	●	●						●		●	
Auditor	Kazuya Saito	●	●	●				●					
External Auditor	Senshu Asada	●	●		●								●
External Auditor	Isao Utsunomiya	●	●		●					●			

● Chairperson ● Chairperson ● Observer

*1 The Board of Executive Officers also includes executive officers in addition to the above.

*2 Main expertise and experience of each director and auditor are listed.

The above list does not represent all the expertise and experience of each person. It indicates areas regarding which the Company has particular expectations.

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 directors' 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 was established in order to ensure management transparency, fairness, and appropriateness of remuneration, etc., analyzes the level of remuneration at other companies of similar size in similar industries, 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 their respective positions. For this purpose, the remuneration is made up of base remuneration as fixed remuneration that is commensurate with position and 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 Ordinary General Meeting of Shareholders. For internal directors, remuneration, etc. through a Board Benefit Trust (BBT), which was resolved at the Ordinary General Meeting of Shareholders, is also granted as performance-linked remuneration not included in the relevant remuneration limit.

The Company abolished the officer retirement benefits system.

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 2021, it is judged that effectiveness of the Company's Board of Directors is secured. However, proposals such as on enhancement of discussion of management strategy and sustainability have been submitted, and in our continuing efforts to enhance the effectiveness of the Board of Directors, we will accord due consideration to 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 of attendees from the viewpoint of ensuring swift decision-making.

Initiatives to Ensure Effectiveness of Audit

Meetings of the Board of Corporate Auditors of the Company were held 19 times in FY 2021 at which important matters concerning audit, including agendas for meetings of the Board of Directors were reported

Principal Activities of External Directors and Auditors in FY 2021

Name of external director/auditor	Reasons for selection as an external director/auditor	Attendance and principal activities
Hiroyuki Nishi	To receive valuable opinions based on his extensive experience and broad perspective particularly centered on risk management	Attended all 13 meetings of the Board of Directors held during the fiscal year and provided opinions concerning deliberation of the agenda as necessary, based on his extensive experience and sophisticated insight as a corporate manager of other companies both in Japan and overseas.
Norio Uchida	To receive valuable opinions based on his extensive experience and broad perspective particularly centered on international sales activities	Attended all 13 meetings of the Board of Directors held during the fiscal year and provided opinions concerning deliberation of the agenda as necessary, based on his extensive experience and sophisticated insight as a corporate manager of other companies both in Japan and overseas.
Dr. Kozo Ishida	To receive valuable opinions based on his extensive experience and broad perspective particularly centered on research and development	Attended all 13 meetings of the Board of Directors held during the fiscal year and provided opinions concerning deliberation of the agenda as necessary, based on his extensive experience and technical expertise as a corporate manager of other companies both in Japan and overseas.
Yoshimi Nakajima	To receive valuable opinions based on her extensive experience and broad perspective particularly centered on international sales activities	Attended all 13 meetings of the Board of Directors held during the fiscal year and provided opinions concerning deliberation of the agenda as necessary, based on her extensive experience and sophisticated insight as a corporate manager of other companies both in Japan and overseas.
Senshu Asada	To receive valuable opinions based on his experience and specialized knowledge as an attorney	Attended all 13 meetings of the Board of Directors and all 19 meetings of the Board of Corporate Auditors held during the fiscal year and provided opinions concerning deliberation of the agenda as necessary, mainly from a specialist perspective as an attorney.
Isao Utsunomiya	To receive valuable opinions based on his experience and specialized knowledge as a certified public tax accountant	Attended all 13 meetings of the Board of Directors and all 19 meetings of the Board of Corporate Auditors held during the fiscal year and provided opinions concerning deliberation of the agenda as necessary, mainly from a specialist perspective as a certified public tax accountant.

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 only 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 meetings they should attend 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 gaining a 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 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 year. 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 encouraging 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.

Messages from External Directors



Hiroyuki Nishi

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. (current position)

The business environment in which the ULVAC Group operates changes day by day and technological innovation is progressing rapidly. In addition, there are numerous uncertain factors. We have to learn to live with COVID-19 and natural disasters are a fact of life in Japan. The protracted situation in Ukraine, concerns about the possibility of a global recession, and friction between the U.S. and China are just a few examples of the geopolitical risks we face. Even amid this turbulent environment, we must remain focused on our vision and advance without wavering.

This is the context in which ULVAC has formulated Vision 2032, "Continue to be a Field of Potentiality for the Future." It is noteworthy that the vision was the fruit of discussions among young employees in Japan and abroad. This vision indicates that the very DNA that animated ULVAC at its foundation remains as vibrant as ever in the year ULVAC is celebrating its 70th anniversary. Vision 2032 is essential for ULVAC's future growth. The key is how to inculcate this wonderful vision in the hearts and minds of the entire workforce of the ULVAC Group, making it an everyday reality throughout our operations. Materiality (key issues) provides a perspective on what needs to be done to achieve the vision.

For ULVAC, an enterprise committed to the progress of technology and development, innovating together with partners in each business, while always considering human rights and environmental issues from a global perspective, will lead to sustainable growth and enhancement of corporate value. This, in turn, will be a source of satisfaction and happiness for all stakeholders, including employees and customers, leading to win-win relationships for three or four parties, indeed for everyone concerned. For all ULVAC employees to take pride in Vision 2032 and work in

unison toward its achievement, it is necessary to strengthen the organization and structure upon which this vision is founded.

In my experience, excellent global organizations are those equipped with capabilities to respond with both "resilience" and "flexibility."

In business, no matter what happens or when it happens, if an organization has such robust capabilities, it will be able to conduct "offensive" management by carefully assessing and managing risks.

Effective risk management is not about not taking risks, but involves examining risks from all angles and deciding whether to embark on a project, or continue or withdraw from a project, from the viewpoint of whether the risk is appropriate in terms of the medium- to long-term growth of the company or whether the company can manage the risk if it materializes. "Diversification of risk," which is a hot topic nowadays, is a form of risk management designed to prevent, through diversification of business, geography, time, or human resources, concentration of risk in a particular field. For the ULVAC Group whose overseas presence is high, business management (PDCA) and governance across Group companies worldwide are particularly important and should be further improved as we advance.

As a member of the Board of Directors, I will provide multifaceted support from these perspectives. Recognizing the critical importance of speed in tackling the challenges confronting the ULVAC Group in the environment in which it operates, let's advance persistently, boldly, and meticulously to enable ULVAC to "Continue to be a Field of Potentiality for the Future."

And beyond that, let's make the ULVAC Group a "truly global enterprise."



Norio Uchida

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

ULVAC celebrated its 70th anniversary this year, and Vision 2032, "Continue to be a Field of Potentiality for the Future," articulating what ULVAC aspires to be 10 years from now, as conceived by young employees in Japan and overseas, is significant. Furthermore, it is necessary to clarify materiality and address it in the mid-term management plan. In my mind's eye, I see ULVAC 10 years down the road firmly established as a field of potentiality for the future. ULVAC's materiality mainly concerns two issues.

The first key issue is how best to promote unique initiatives to achieve the vision. This will necessarily involve the entire workforce of the ULVAC Group and will include sustainable innovation and development of global and specialist human resources. Innovation is the key to creating the best in the world. Moreover, to create the first in the world, in addition to passion, both sensitivity and imagination are needed. Understanding global customer needs is essential for sustainable creation of innovative technologies. It is important to have a marketing base in every country where the needs are future-oriented and the competition is formidable, along with an R&D base with a sure grasp of these needs. The key to success in creating innovation is speedy information sharing between marketing and R&D. Since Japan's GDP, which stood at 18% of global GDP in 1995, has shrunk to one-third of that, global operations are essential. The initial step in product development begins with information gathering to draw up a scenario, i.e., marketing. It takes 10 years to develop specialized human resources capable of effective global marketing. While a cadre of such people is being nurtured within ULVAC, hiring human resources for marketing from outside the company is

also a possibility. New businesses and products will be created by expediting the sharing of information between technical teams and those who possess the requisite expertise in marketing.

The second materiality is a corporate issue: how best to strengthen the management base (strengthening of governance, investment in bases, workstyle reform, human resources investment, environmental investment, etc.) and improve financial performance (management of achievement of profit targets, optimal allocation of management resources, improvement of asset efficiency through selection and concentration, etc.). In order to achieve the vision, both human resources and the company's business foundation must function smoothly. In the process, human resources capable of innovation will be developed. In addition to passion, sensitivity, and scenario skills, these human resources need to have a sense of crisis and possess expertise that the world craves. The ULVAC Group needs frontline human resources to work globally and back-end specialists on the support side. Youthful frontline human resources should be eager to work overseas, while the support side should aim to become specialists.

In 2032, I expect to see ULVAC's human resources displaying their capabilities around the world and creating innovation on a sustainable basis. Moreover, I expect to see a "Field of Potentiality" firmly anchored globally, with issues of materiality having been addressed effectively through execution of the mid-term management plan, paving the way for ULVAC's emergence as a "global leader."

Messages from External Directors



Dr. Kozo Ishida

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

In the semiconductor and FPD industries, which include ULVAC's main customers, and related industries that require vacuum equipment, rapid technological evolution is the key to survival. Cutting-edge needs can be addressed only through development and production that are far more innovative than in the past.

The ULVAC Group, whose business is "manufacturing," must constantly strive to enhance its development and production potential in order to continue to innovate those processes and thus contribute to customers' innovation. I believe that the key is to unleash this potential in the form of manufacturing capabilities emphasizing "power," "speed," and "flexibility."

Human resources are the wellspring of strengthened "power." It is important for ULVAC to persistently develop people from a truly global perspective who are committed to technological development and production of "No. 1 and Only One" in the world. Above all, it is essential to develop leaders in development and production whose strong owner's mindset and multifaceted vision enable them to build teams. With this in mind, ULVAC should spare no effort in supporting human resources development. Those involved in development and production should have as many opportunities as possible for external technical exchanges and interactive contact with users from the early phase of their careers, cultivate the expertise that will enable them to compete globally, and demonstrate their capabilities in the world.

In addition, to further accelerate the "speed" of development and production, internally ULVAC needs

to strengthen its human resources and technology assets and promote exchanges of engineers within the Group, while externally engaging in open innovation with relevant organizations and pursuing technology alliances. In some cases, ULVAC may need to invest vigorously through M&A to strengthen marketing as well as development and production capabilities.

Clearly, in order to respond swiftly and effectively to rapidly changing needs, it is important to select and implement "flexible" and efficient paths to success according to the situation without hesitation, whether it be in cutting-edge marketing, development, production, or sales.

Innovation is easier said than done. In particular, the dead hand of corporate inertia can make it extremely difficult to advance beyond stereotypical behavior. Hence, my conviction is that it is essential to return to the essence of development and production by recognizing anew the basics in order to develop and produce products attuned to user needs, accumulate incremental innovations in all processes, and forge a new value creation chain leading to a bright future hand in hand with users.

In this 70th anniversary year, I am keenly anticipating ULVAC's next dynamic round of development centering on vacuum technology and the related application technologies, supporting the foundation of society through the development of industry, science, and technology over the next quarter of a century.



Yoshimi Nakajima

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.

For ULVAC, whose business operations extend across the globe, the "people" involved in this endeavor are a major factor in transforming the potential of "vacuum" into an everyday reality. ULVAC should take pride in the fact that "people" are at the heart of its founding philosophy.

With an eye to the society of the future, despite the difficulty of prediction, we need to reaffirm the need for management that strongly takes into consideration not only ULVAC's employees, their families, people in local communities, and the companies with which ULVAC collaborates but also "society," transcending national borders and languages. This is crucially important in terms of taking responsibility for the future.

How can ULVAC build an organization in which people can engage with joy and conviction, with awareness of "contribution to the corporate purpose by themselves and their team"? And how can ULVAC ensure that everyone involved in this endeavor comprehends the importance of continuing to build and operate this enterprise and how should ULVAC communicate to external parties what it is doing?

For the ULVAC Group to continue to be sought after by individuals and society in the future, it is necessary

not only to cherish the strengths but also to introduce external viewpoints so that the employees are keenly aware that the Group needs to be an enterprise capable of anticipating society's needs and nurturing human resources who can make a change for the better. I sincerely hope that everyone at the ULVAC Group will take ownership, think about what they should do, and act accordingly.

In formulating Vision 2032, young employees in Japan and overseas played a central role, engaging in in-depth discussion across companies and organizations. I highly regard this process as a milestone on the path to diversity and inclusion.

For the ULVAC Group, which is developing business globally with cutting-edge technologies, to continue to grow, it must be involved in the well-being of its employees, in addition to improving the personnel system to meet the needs of the era. I look forward to seeing ULVAC promote activities among employees, transcending organizational and regional boundaries, as well as exchanges with companies and organizations outside ULVAC from a global perspective and further enhance corporate value.

Management Structure

Directors



Setsuo Iwashita
President and Chief Executive Officer

Expertise/experience **Corporate management** **Global** **Sales/marketing**

March 1984 August 1992 Joined the Company
Manager of Beijing Business Office and Shanghai Business Office, Overseas Operation Division

September 1995 Director and Chief Executive Officer of ULVAC (NINGBO) CO., Ltd.

July 1998 General Manager of Chinese Region, Asia Division of the Company

March 2006 Director and Chief Executive Officer of ULVAC (CHINA) HOLDING CO., LTD.

October 2006 Chairman of ULVAC (Shanghai) Trading Co., Ltd.; Chairman of ULVAC (SUZHOU) CO., LTD.

September 2011 Director of the Company

July 2012 Director and Executive Officer

September 2013 Managing Executive Officer

July 2015 Senior Managing Executive Officer of the Company; Chairman of ULVAC (CHINA) HOLDING CO., LTD.

July 2016 Senior Managing Executive Officer and Senior Manager of Management Planning Department of the Company

September 2016 Director and Senior Managing Executive Officer, Senior Manager of Management Planning Department

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)



Mitsuru Motoyoshi
Director and Executive Vice President

Expertise/experience **Corporate management** **Global** **Finance/accounting**

April 1980 July 2000 September 2005 July 2010 July 2012 Joined the Company
Senior Manager of Accounting Department
Director and Senior Manager of Accounting Department
Director and Senior Manager of Management Planning Department
Director and Executive Officer, Senior Manager of Management Planning Department

July 2013 Chairman of ULVAC TAIWAN INC.

July 2014 Director and Managing Executive Officer, Senior Manager of Management Planning Department of the Company

July 2015 Director and Senior Managing Executive Officer, Senior Manager of Management Planning Department

July 2017 Director and Senior Managing Executive Officer, Senior General Manager of Business Strategy Headquarters of the Company; Chairman of ULVAC (Shanghai) Trading Co., Ltd.; Chairman of ULVAC (SUZHOU) CO., LTD.; Chairman of ULVAC SINGAPORE PTE LTD; Chairman of ULVAC MALAYSIA SDN. BHD.

July 2018 Director and Executive Vice President of the Company

January 2019 Chairman and Chief Executive Officer of ULVAC (CHINA) HOLDING CO., LTD.; Chairman of ULVAC Automation Technology (Shanghai) Corporation

July 2019 Director and Executive Vice President, General Manager of Management Empowerment Center of Excellence of the Company, responsible for associate companies; Chairman of ULVAC Tianma Electric (Jingjiang) Co., Ltd.

January 2020 Chairman of ULVAC (CHINA) HOLDING CO., LTD.

July 2020 Director and Executive Vice President (in charge of Group companies) of the Company (current position)



Norio Uchida
Director

External **Independent**

Expertise/experience **Corporate management** **Global** **Sales/marketing**

April 1973 June 1980 February 1989 October 1994 April 1997 June 1980 February 1989 October 1994

Joined Tokyo Optical Co., Ltd. (currently TOPCON CORPORATION)
General Manager of Topcon Singapore Pte. Ltd.
President of Topcon Australia Pty Ltd.
Senior Vice President of Topcon Laser Systems, Inc. (currently Topcon Positioning Systems, Inc.)

July 1999 President of Topcon Laser Systems Japan, Inc.

June 2003 Executive Officer of TOPCON CORPORATION

July 2003 Director and President of Topcon Sales Corporation (currently TOPCON SOKKIA POSITIONING JAPAN CO., LTD.)

June 2005 Director and Executive Officer of TOPCON CORPORATION

June 2007 Director and Managing Executive Officer

June 2010 Director and Senior Managing Executive Officer

June 2011 Representative Director, President & CEO

June 2013 Advisor to the Board

June 2015 External Director of Nabtesco Corporation (current position)

September 2015 External Director of the Company (current position)



Dr. Kozo Ishida
Director

External **Independent**

Expertise/experience **Corporate management** **Global** **R&D/technology/manufacturing**

March 1970 June 1982 March 1985 June 1988 June 1991 June 1996 July 2001 June 2002 June 2005 March 2011 March 2014 March 2016 September 2016 March 2017 April 2018

Joined HORIBA, Ltd.
General Manager of Product Department I, Development and Sales Division
President and Director of HORIBA Europe GmbH (Germany)
Director of HORIBA, Ltd.
Managing Director
Senior Managing Director
President and Director (CEO) of ABX, S.A. (currently HORIBA ABX SAS) (France)
Vice President and Director of HORIBA, Ltd.
Executive Vice President and Representative Director
Director and Advisor of HORIBA STEC Co., Ltd.
Vice Chairman and Representative Director of HORIBA, Ltd.
Senior Advisor
External Director of the Company (current position)
External Director of Seiko Electric Co., Ltd. (current position)
Fellow of HORIBA, Ltd.



Dr. Choong Ryul Paik
Senior Managing Director

Expertise/experience **Corporate management** **Global** **R&D/technology/manufacturing**

April 1991 September 1999 September 2000 September 2012 July 2015 September 2016 July 2018 September 2018 July 2019 July 2020 July 2021

Joined the Company
Joined ULVAC KOREA, Ltd. as Senior Director
President of ULVAC KOREA, Ltd.
Executive Officer of the Company
Managing Executive Officer
Chairman of ULVAC KOREA, Ltd. (current position)
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)



Hiroyuki Nishi
Director

External **Independent**

Expertise/experience **Corporate management** **Global** **Legal affairs/risk management**

April 1983 March 2007 March 2010 July 2011 March 2014 March 2017 March 2018 March 2018 March 2020 April 2020 September 2020

Joined Nippon Life Insurance Company
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 President and Chief Executive Officer of Nissay Asset Management Corporation

March 2018 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)



Yoshimi Nakajima
Director

External **Independent**

Expertise/experience **Corporate management** **Global** **Sales/marketing**

April 1980 February 1982 May 1997 June 2000 April 2002 August 2011 February 2014 April 2014 June 2017 June 2018 September 2018 April 2021

Joined The Yasuda Trust and Banking Co., Ltd. (currently Mizuho Trust & Banking Co., Ltd.)
Joined AVON PRODUCTS CO., LTD.
Joined Citibank, N. A. as Vice President
Joined Societe Generale Securities Services as Senior General Manager
Joined American Express International, Inc. as Vice President in charge of Global Traveler's Check & Prepaid Card Service, Japan Branch
Country Manager in Singapore (President)
Senior Vice President of Japan Branch
President and Representative Director of American Express Japan Co., Ltd.
External Director of Yamaha Corporation; External Director of AEON Financial Service Co., Ltd. (current position)
External Director of Japan Freight Railway Company (current position)
External Director of the Company (current position)
Outside Director of Sekisui House, Ltd. (current position)

Auditors



Makoto Ito
Auditor

Expertise/experience **Finance/accounting** **Legal affairs/risk management**

April 1984 March 2008 March 2012 April 2015 September 2015

Joined Nippon Life Insurance Company
General Manager of 1st Osaka Corporate Finance Dept. and Kyushu Area Corporate Finance Dept.
General Manager of Metropolitan Area Corporate Finance Dept.
Joined the Company. Counselor to Senior Manager of Management Planning Department
Full-time Auditor (current position)



Kazuya Saito
Auditor

Expertise/experience **R&D/technology/manufacturing**

April 1983 July 1996 October 2000 July 2005 September 2009 July 2012 September 2013 July 2018 July 2021 September 2022

Joined the Company
Manager of Vacuum Materials Laboratory, Tsukuba Institute for Super Materials
Senior Manager of No. 3 Research Department, Chiba Institute for Super Materials
General Manager of Chiba Institute for Super Materials
Director, General Manager of Chiba Institute for Super Materials
Director and Executive Officer, General Manager of Technology Planning Department
Executive Officer, General Manager of Technology Planning Department, General Manager of Institute for Super Materials
Senior Executive Officer, General Manager of Institute for Semiconductor and Electronic Technology
Officer, Assigned to Strategic Planning Department
Full-time Auditor (current position)



Senshu Asada
Auditor

External **Independent**

Expertise/experience **Legal affairs/risk management**

April 1977 October 1996 June 2001 September 2007 April 2012 March 2014 June 2017

Registered as an attorney. Joined the Daini Tokyo Bar Association
Jointly established Koju Law Firm
External Audit & Supervisory Board Member of HIMIKO Co., Ltd.
External Auditor of the Company (current position)
Auditor of Judo Federation of Tokyo (current position)
Councilor of All Japan Judo Federation
External Director of Ahkun Co., Ltd. (currently Fuva Brain Limited)



Isao Utsunomiya
Auditor

External **Independent**

Expertise/experience **Finance/accounting**

April 1997 July 1999 June 2011 June 2012 June 2013 June 2015 June 2017 September 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
External Auditor of the Company (current position)
Deputy General Manager of Kyobashi Branch, Tokyo Certified Public Tax Accountants' Association (current position)

Risk Management

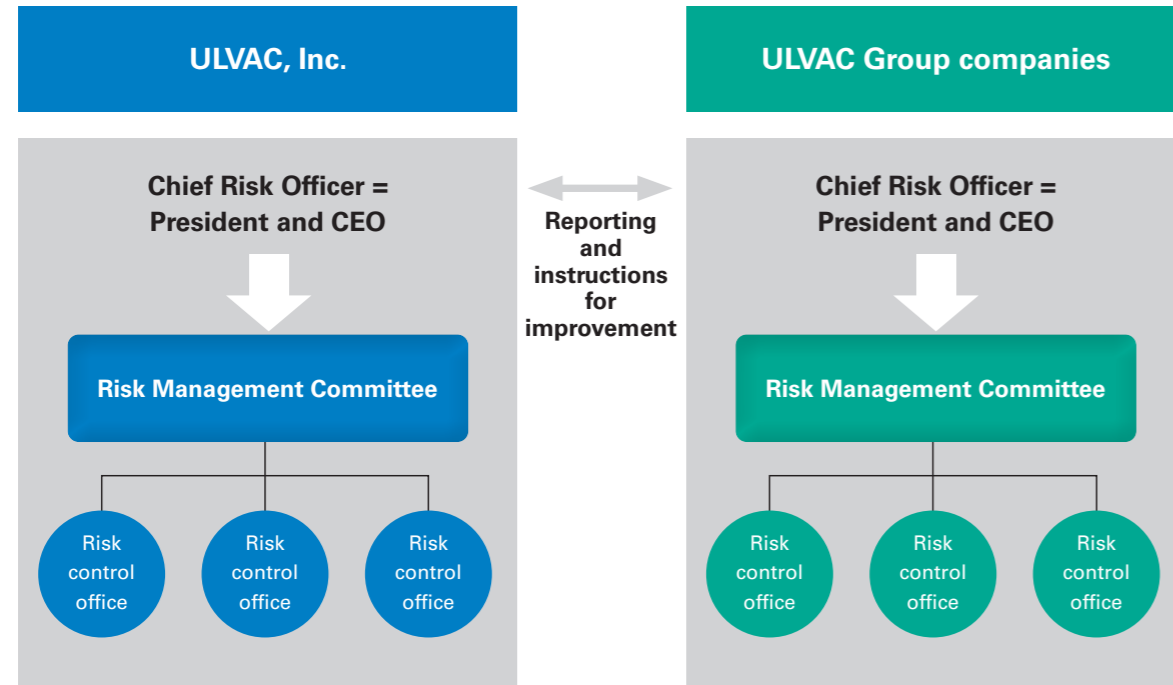
The ULVAC Group considers that responding appropriately to increasingly complex and diverse risk factors leads to the creation of governance structures that contribute to the fulfillment of legal requirements and the creation of internal control structures, and by extension, the medium- to long-term 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 information that is important for 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 meetings as an umbrella organization for risk management, and it determines company-wide basic policies, monitors the state of management and administration, and considers any improvements that can be made, etc. Furthermore, initiatives at ULVAC, Inc. are implemented at ULVAC Group companies as appropriate for the scale and business type of the company in question.

Risk Management System



- Risk 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 are identified that may have a significant impact on financial position, business results, and cash flows and are described 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 the Group's customers, the Group's business results and financial position may be adversely affected.

In this regard, in the current mid-term management plan launched in July 2020, the Group set a twofold basic policy: "investment in development for growth (selection and concentration)" and "profit-oriented management through structural change." Under the basic policy, even in the case of market fluctuation, ULVAC aims to improve profitability by enhancing productivity and achieve sustainable growth by focusing on development in growth fields. Our diverse products are used in a wide range of fields. We will enhance our ability to respond to market fluctuations by building a stable revenue base, centering on the semiconductor and electronic component fields.

Research and Development

By maintaining vigorous R&D investment, we have continued to introduce a stream of new products that incorporate the latest technologies. However, if development is significantly delayed for a compelling reason, resulting in delay in introduction of new products to the market, the Group'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 various countries and regions, but competitors also operate globally, and it is a competitive environment with new entrants. 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. The Group 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.

Supply Chain

The Group's business results and financial position may be adversely affected if prices of parts soar or supply delays occur due to tight supply and demand for parts used to manufacture products or if production activities are halted or delayed due to supply chain disruptions caused by a large-scale disaster and other incidents.

The Group strives to secure necessary parts by establishing systems for cooperation with suppliers and arranging for parts at an early stage.

Major Risks That May Have Significant Impacts on Business

- 1 Fluctuations in FPD, semiconductor, and electronic device markets
- 2 Delays in research and development
- 3 Intensifying global competition
- 4 Continuous securing of human resources
- 5 Tight supply and demand for parts in the supply chain
- 6 Violation of laws and regulations
- 7 Quality defects
- 8 Securing of funds by borrowing, etc.
- 9 Leakage of confidential information
- 10 Sharp currency fluctuations
- 11 Infringement of intellectual property rights
- 12 Occurrence of safety-related accidents
- 13 Violation of environmental regulations
- 14 Spread of COVID-19

Compliance

We emphasize not only compliance with laws and regulations but also compliance with internal codes and ethical codes. As well as conducting awareness-raising activities so that each person in the ULVAC Group acts with a spirit of compliance, we have established and are operating a range of institutions and regulations to ensure thorough compliance.

Corporate Code of Conduct

In order to further promote fair and highly transparent corporate management, ULVAC has established a Corporate Code of Conduct comprising 18 items, conducted education, and distributed booklets to inculcate a culture of compliance. The Corporate Code of Conduct includes this statement: "ULVAC's officers and employees shall always pay attention to social trends, enhance their own sense of ethics, and act sensibly with the awareness that they are members of ULVAC as well as of society." We use this Corporate Code of Conduct as guidelines for asking ourselves whether our business conduct is "in the best interest of our customers," "correct in light of laws and social ethics," and "does not infringe human rights."



Corporate Code of Conduct	
1	Excellent Products, Services, and Safety
2	Sound, Corporate Association with Business Partners and Affiliated Companies
3	Promotion of Maintenance of Fair and Free Competition
4	Protection of Intellectual Property Rights
5	Corporate Secrets
6	Client Information
7	Respect for Employees' Personality and Individuality
8	Respect for Privacy
9	Respect for Human Rights and Nondiscriminatory Treatment
10	Assurance of Safe and Healthy Work Environment
11	Compliance with Laws or Ordinances
12	Insulation from Antisocial Forces
13	Disclosure of Information
14	Global Environmental Protection
15	Local Contribution
16	Global Business Activities
17	Thorough Implementation of Corporate Ethics
18	Pronouncements by Individuals

Compliance Education

Amid a changing social environment, we conduct periodic or ad hoc company-wide education on compliance, prevention of insider trading, prevention of harassment, prevention of misconduct in research activities, etc., to raise awareness not only in terms of knowledge but also to enable our employees to act appropriately.

Whistleblowing System

In addition to a whistleblowing system operated via the Manager of the Internal Auditing Department for which independence is secured in accordance with the Whistleblower Protection Act, we have also established an external whistleblowing contact. The Manager of the Internal Auditing Department also serves as the secretariat for the Compliance Committee, and the system is structured such that confidentiality is ensured throughout the process of investigating the content of reports. By putting in place a whistleblowing system that allows whistleblowers to feel secure in their reporting, we aim to detect any misconduct early and take appropriate corrective action.

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 are 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 in the context of further global business development. We support international norms and are strengthening promotion of the protection of and respect for human rights. Moreover, we respect fundamental human rights based on the laws and regulations of each country and region.

Approach to Human Rights

ULVAC has been a signatory to the United Nations Global Compact, which is a global initiative, 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 Corporate Code of Conduct as guidelines for all officers and employees to keep in mind so as to ensure their work does not infringe human rights. In response to recent changes in awareness and issues regarding human rights in the international community, ULVAC has formulated the ULVAC Human Rights Policy based on international norms. As a company that conducts business globally, ULVAC will, in accordance with this policy, promote business activities that respect human rights more than ever before, based on a clear and common understanding of how human rights should be respected in business activities.

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, 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.

[For details](#) Website > Sustainability > Human Rights

Approach to Human Rights

The Corporate Code of Conduct specifies policies on respecting the personality and individuality of employees. In accordance with the Corporate Code of Conduct and the Basic Policy for Human Resources Development, we are striving to create workplaces

offering job satisfaction. Furthermore, we are also striving to provide 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.

Reporting and Consultation Desk for Human Rights Issues

We have adopted a whistleblowing system operated via the Manager of the Internal Auditing Department for which independence is secured.

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 has concluded labor agreements with labor unions and promised to sincerely work together with them to adhere to these agreements in order to establish and develop labor-management 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 at major production bases, we request business partners to work with us on these initiatives. We conducted questionnaire surveys mainly for major business partners and have incorporated the questionnaire items into the evaluation at the time of periodic renewal. Furthermore, we have established a policy on the handling of conflict minerals and conduct due diligence.

Due Diligence on Human Rights

We have incorporated international norms into the ULVAC Human Rights Policy and have established human rights due diligence processes according to the procedures corresponding to the international norms. We are making an effort to further strengthen relief mechanisms by recognizing, preventing, and addressing negative effects that may have on human rights through business activities.

Human Resources

To achieve sustained growth, dynamic organizations must serve as a foundation enabling diverse human resources to fulfill their potential. Despite the impact of COVID-19 in FY 2021, we created educational opportunities, holding online training and making greater use of our unique Learning Management System (ULVAC Academy Portal) than previously.

ULVAC will step up its engagement in organizational and human resources development more than ever, focusing on securing and cultivating tomorrow's leaders to strengthen the management base.

Basic Policy

Amid intensifying global competition, with overseas sales accounting for 70% of total sales, in order to achieve sustainable growth of its businesses, the ULVAC Group needs to cultivate an environment where people with diverse personalities and strengths can maintain physical and mental health, bring their differing capabilities into full play, and enhance one another's effectiveness through friendly competition.

In the ULVAC Group, 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, innovating to resolve customers' and society's issues. By doing so, we aim to continue delivering 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 planet, 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 the Basic Corporate Philosophy and the Management Policies.

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 2021

ULVAC holds UL-GAIA to ensure that employees share and put into practice the Basic Corporate Philosophy, the Business Philosophy, and the Employee Principles, and furthermore, to commend their activities and recognize outstanding achievements. UL-GAIA is the acronym of ULVAC Global Awards of Improved Achievement. Likening the ULVAC Group to Gaia (the Earth), UL-GAIA reflects our desire to create an award to promote Group-wide unity worldwide and to combine our energy and expertise so as to put into practice the Basic Corporate Philosophy, the Business Philosophy, and the Employee Principles.

Until FY 2020, the theme of UL-GAIA was productivity improvement, but from FY 2021, UL-GAIA was repurposed as an "opportunity to share the best practices corresponding to the Basic Corporate Philosophy, the Business Philosophy, and the Employee Principles," thus promoting their deeper penetration since they embody the ULVAC Group's shared values and its orientation, and ensuring the wholehearted

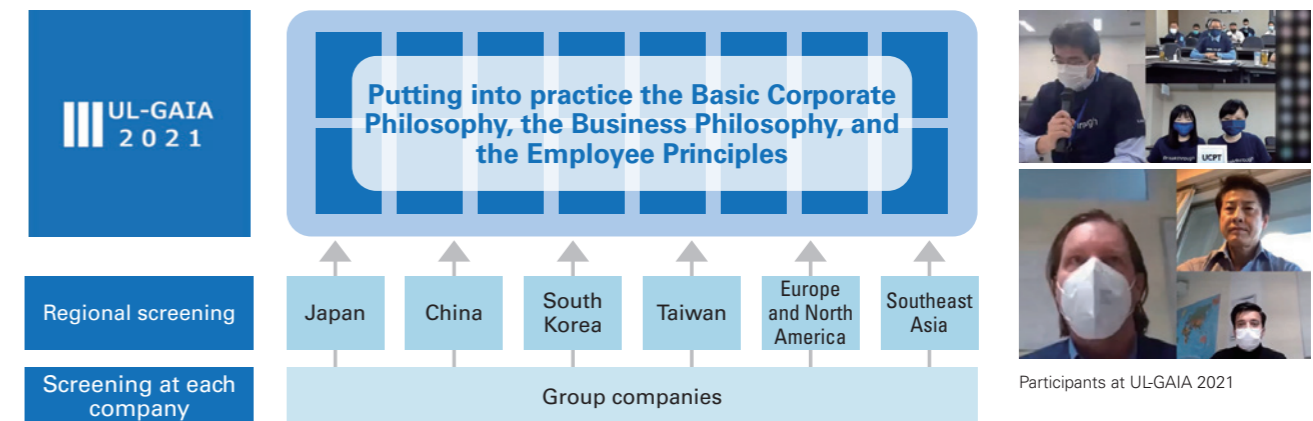


participation of the entire workforce of the ULVAC Group in UL-GAIA. ULVAC has long been engaged in activities to deepen penetration of the Basic Corporate Philosophy, the Business Philosophy, and the Employee Principles. Nevertheless, with a view to ensuring ULVAC's sustainable growth amid intensifying global competition, we believe it is essential that our diverse workforce have a sure grasp of the Basic Corporate Philosophy, etc., take them to heart, apply them, share best practices, and encourage one another to excel. We are working to further strengthen our management base by maintaining the tempo of the UL-GAIA initiatives.

Owing to the COVID-19 pandemic, UL-GAIA 2021 was held as a hybrid event, combining online and in-person participation, as in the previous year. The number of entries tripled compared to FY 2020, owing to the change of the theme. The teams selected from these entries by screening in each country and region made memorable presentations expressing their commitment and creativity. Specifically, the change of

the theme to "putting into practice the Basic Corporate Philosophy, the Business Philosophy, and the Employee Principles" resulted in expansion of the scope of the activities featured at UL-GAIA. In addition to value creation through improvement and reform of value chain processes, maximization of synergy across the Group, and strengthening of cross-functional support and solutions for issues affecting multiple Group companies, all of which are in line with the previous theme of "Production Technology/Manufacturing Technology/Business Improvement," entries at UL-GAIA 2021 included activities designed to resolve social issues. By sharing the outcomes (benefits) of these activities and the process of problem solving throughout the Group, we aim to ensure that the entire workforce is fully aware of the importance of putting into practice the Basic Corporate Philosophy, the Business Philosophy, and the Employee Principles in their work. Furthermore, through horizontal deployment of the best practices presented, we aim to link them to further growth of the ULVAC Group.

Selection Process



Education Center Established

We established the Education Center in July 2022. Although we have been conducting activities such as visualization of human resources and other resources, including those of Group companies since FY 2019, from now on we intend to promote global human resources development and empowerment of diverse human resources. For the ULVAC Group's sustainable growth, people are the most important resource. Every employee must be given opportunities and encouraged to fulfill their potential by playing an active role in the ULVAC Group. The Education Center provides a wide range of opportunities and means for career development so that each employee takes a proactive and autonomous approach to one's own career and personal growth, so that the employees' personal growth and the company's growth will be linked more than ever before.

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.

Group-wide Level-specific Training and Training for Managerial Personnel

Level-specific education starts with an introductory program for new employees and includes a program for employees in their third year and subsequent programs according to internal qualifications and positions. We continue to redesign our education system. Specifically, we now provide training that runs for about six months

for newly appointed managerial personnel so that they can equip themselves with the managerial skills and operational knowledge they need as managers. To revitalize organizations, we also offer communication and management training for existing managerial personnel. The objective is to help them in their efforts to enhance their managerial capabilities so that they can flexibly respond to various changes in workstyles, such as the rise in working from home.

Manufacturing Education

Our vision is to offer a wealth of educational opportunities covering the diverse techniques and skills essential for manufacturing throughout the Group in a consistent and equitable manner. This wide-ranging education includes reskilling and the passing on of skills from one generation to the next. We are focusing on raising the level of the Group's technical capabilities through education on the fundamentals of manufacturing and vacuum technology, which constitutes essential knowledge for all ULVAC engineers. Furthermore, for trainees from Group companies in Japan and overseas, we have established a course that in a systematic manner covers ULVAC's history, culture, and management strategy as well as other subjects. We are also promoting personnel exchanges globally.

Administration Education

We provide training for employees engaged in administration so that they can acquire the basic knowledge required for their roles step by step and become adept. The program is designed to help trainees acquire a wide range of knowledge on such matters as economic and business trends, company policies and the mid-term management plan, basic knowledge of accounting and taxation, corporate governance, and the Companies Act, and also encourages them to take ownership of their education and training, showing initiative and pursuing personal growth with a view to the next stage of their career.

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 exchanges.

ULVAC Academy Portal

Launched in 2016, the ULVAC Academy Portal offers and develops programs that can flexibly respond to the

increase in mid-career hiring and the flow of human resources among Group companies. Incorporating methods such as blended learning, which combines online training and group training, the portal has fulfilled a particularly important role in promoting self-motivated learning during the COVID-19 pandemic. We are also working to standardize training across the Group and offer an environment in which anyone can learn whenever they wish. Some 6,000 ULVAC employees have registered and are using the portal, which now supports Japanese, English, simplified Chinese, traditional Chinese, and Korean, and currently offers around 1,700 items of content.

Principal content	
Philosophy education	<ul style="list-style-type: none"> ● Message from the President ● UL-GAIA presentation video clips
Global education	<ul style="list-style-type: none"> ● Video clips of lectures and other internal seminars and online lectures ● Language education before overseas assignment, cultural and history education ● English education ● In-house newsletters of Group companies
Mandatory education	<ul style="list-style-type: none"> ● ULVAC service safety education, basic course on machine safety, basic education on product safety, etc. ● Compliance education, research ethics education, basic environmental and safety education, traffic safety education, etc.
Specialized education	<ul style="list-style-type: none"> ● Education linked to internal qualification systems such as for trade and security trade control ● Engineering education on development, technology, design, production, etc., including manufacturing education
General education	<ul style="list-style-type: none"> ● Education on health promotion

Human Resources Subcommittee

We have established the Human Resources Subcommittee consisting mainly of young employees to thoroughly examine initiatives for sustainable management from the viewpoint of human resources

in order to achieve "our goal for 2050." Members of the subcommittee are drawn from various departments and roles, vary in age and genders are fully represented. They discussed various themes such as "how to raise awareness, how to promote diversity, and how to create a comfortable working environment and flexible workstyles necessary for promoting diversity" over a period of six months and drafted a proposal of concrete measures and presented it to management as a series of recommendations. The Human Resources Subcommittee is currently addressing the issue of how best to implement the proposed measures.

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 12.3. We have also taken steps such as the introduction of shortened working hours and the establishment of satellite offices.

Many employees take advantage of systems such as childcare leave, the short-working-hours system for childcare, and nursing care leave. In order to facilitate the use of the systems, we are publicizing the systems by holding meetings to explain the details of the systems, including through the use of explanatory videos.

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. Specifically, we conduct a questionnaire survey of new employees six months after they join ULVAC, Inc. and their superiors, and any gaps in perception are promptly addressed.

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

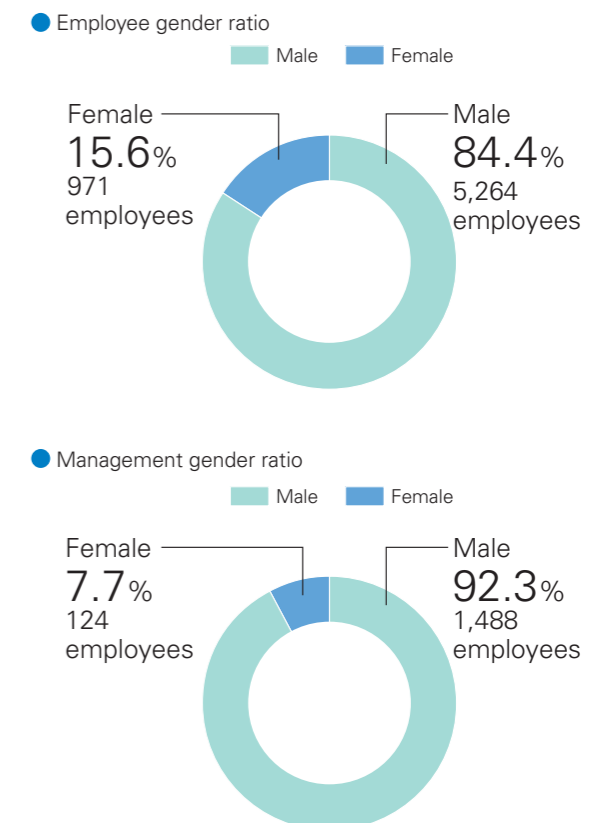
Promotion of Diversity

We believe that active participation of women is a key issue as we aim to create an environment in which diverse human resources can exhibit their skills and grow. We have launched a project involving activities to promote the active participation of women, which is collaborating with the Human Resources Subcommittee. Initiatives include the holding of events at which management and female employees can exchange opinions and ideas.

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 and Productivity 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 and productivity management activities. In addition to legally prescribed health checks, stress checks, and face-to-face guidance for employees who work long hours by an occupational health physician, the Company pursues initiatives for general health improvement, such as wellness improvement and reduction of health risks.

Priority Activity ① Wellness Improvement

ULVAC, Inc. has set a wellness improvement target of "An increase of at least 10% in work engagement by FY 2025 compared with FY 2021." The rate of work engagement at ULVAC, Inc. has been higher than the average in Japan* but declined in FY 2021 compared with FY 2020 (Fig. 1). In order to overcome the challenges, ULVAC, Inc. introduced a resilience program for executives with the aim of forming habits that improve physical, emotional, mental and spiritual condition. We also provide 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. Going forward, the ULVAC Group will focus on the implementation of measures to increase work engagement.

Priority Activity ② Health Risk Reduction

Our health risk reduction target is "Health age*2 3.0 years lower than actual age by FY 2025." Programs available for all employees of ULVAC, Inc. include online education programs covering long working hours, nutrition, women's health, and preparation for health checks, and a walking program that utilizes the PepUp healthcare platform. Thanks in part to the effects of these measures, the health age of employees is gradually improving (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 2022 Certified Health and Productivity Management Organization (White 500) under the large enterprise category; the

Fig. 1 Work Engagement*1

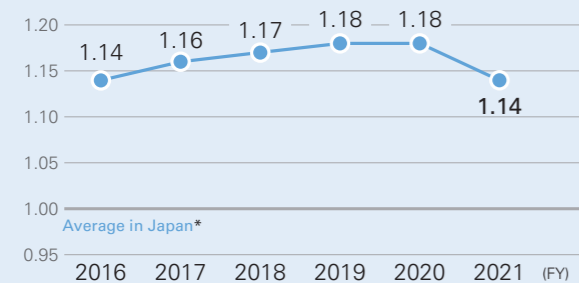
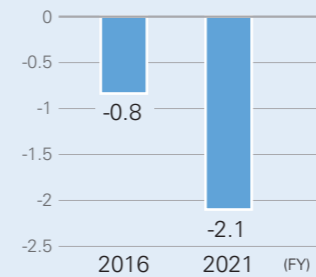


Fig. 2 Health Age



*1 Results of the Utrecht Work Engagement Scale (UWES-9) survey of ULVAC, Inc. employees at the time of applying for a medical checkup. The figures for ULVAC, Inc. employees on the basis that the average in Japan according to Shimazu et al. (2014) is set at 1.00. ULVAC, Inc. began measurement in FY 2016.
 *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.
 * Shimazu 2014; Shimazu et al. 2010

ULVAC Health Insurance Association has been certified as a Certified Health and Productivity Management Organization (Bright 500) under the SME category; and ULVAC EQUIPMENT SALES, Inc., ULVAC CRYOGENICS INCORPORATED, ULVAC TECHNO, Ltd., ULVAC-PHI, Inc., TIGOLD CORPORATION, and REJ Co., Ltd. have been certified as 2022 Certified Health and Productivity Management Organizations under the SME category. 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.

Aiming to Maintain Zero Accidents

To ensure the safety and good health of its customers and employees, the ULVAC Group holds meetings of the Global Safety Management Committee, twice a year 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 declares safety based on management reviews conducted by the president and other executives. To ensure safety, every employee is engaged in occupational safety and health activities through risk assessments etc. We identify hazardous risks at the time of work planning and implement measures before commencement of work. The positive impact of the strengthening of safety measures is apparent in the trend of the frequency ratio of occupational accidents.

ULVAC Group 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.

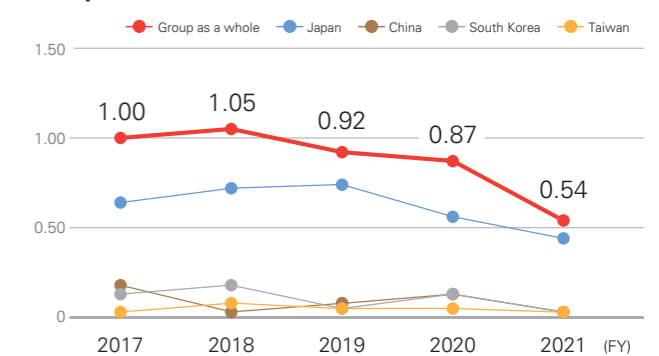
5. Global expansion of ULVAC group

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

ULVAC Group Safety Management System



Frequency ratio of occupational accidents at the ULVAC Group



*This graph shows the rate of occupational accidents for each fiscal year, with the value for FY 2017 (as of June 2018) 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).

ULVAC Group Quality Policy

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

Quality Assurance System

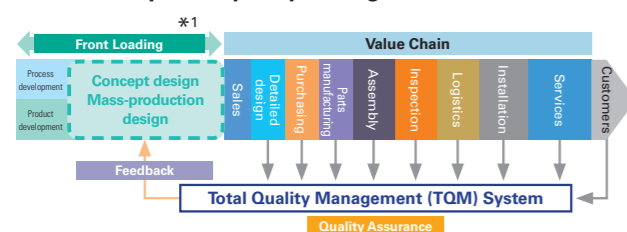
31 ULVAC Group companies are ISO9001: 2015 certified. The Global Quality Assurance Committee led by the president of ULVAC, Inc. spearheads a Group-wide effort to align quality policies and is addressing quality issues and deploying improvements globally.



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 2021, in order to strengthen coordination of quality activities across the ULVAC Group, we conducted a comprehensive review of quality documentation to date and revised approximately 40% of the entire documentation and established a new documentation system to enable quality management at the business unit level across the Group. This will facilitate shared understanding throughout the Group to achieve better comprehensive quality management.

ULVAC Group total quality management



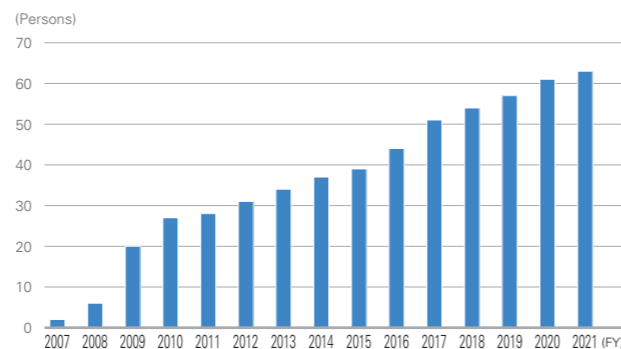
Quality Management Education

In order to ensure that all ULVAC Group employees have basic knowledge of quality, 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 2021, as part of efforts to raise the quality awareness of each employee through visualization and sharing of objectives and activities across the ULVAC Group, we published internal newsletters to widely disseminate the activities of each Group company, provided support for quality-related education, and held briefings.

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 quality at the drawing release and product shipment phases. In line with expansion of production in East 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 P57 for details.
 *3 Safety Assessor (SA) Qualification is a qualification scheme based on third-party certification of machine safety knowledge and competence under international safety standards.

Procurement

Suppliers are 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

The ULVAC Group has established the Basic Procurement Policy. We observe the policy and are promoting CSR procurement in cooperation with our business partners. Furthermore, "Requests to Our Business Partners" states our requests to 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 a questionnaire survey with reference to the RBA Code of Conduct in FY 2021 covering 520 suppliers for registration as new business partners and renewals. As a result, we 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. We plan to expand the scope of this CSR questionnaire survey to cover ULVAC Group companies in Japan in FY 2023 and overseas Group companies in FY 2025.

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 2021, we completed renewals of the agreements with business partners accounting for 97% of the value of procurement.



For details Website > Sustainability > Procurement

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 the aim of maintaining sound, good relationships with business partners. In-house 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 had been holding operations briefing meetings once a year as a forum for our president to directly explain to business partners matters such as the business environment and ULVAC's business results and supplier meetings three times a year for the person in charge of procurement to communicate production plans in a timely manner. In FY 2020, we cancelled these meetings in view of the COVID-19 pandemic, but launched and started operating a membership-based website. While we strive to provide information in a timely manner, we will continue to examine ways to improve supplier communication with a view to the post-COVID-19 era.

Responsible Minerals Procurement

Conflict minerals are minerals, such as 3TGs*2 and cobalt, 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. ULVAC, Inc. does not purchase 3TGs, cobalt, or other raw materials that are derived from these conflict minerals.

In particular, we manufacture and sell sputtering target materials 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 2021, no procured items that use 3TGs or cobalt derived from conflict minerals were detected.

Green Procurement Initiatives

We revised the Green Procurement Standards in August 2020 and request suppliers to share information on chemical substances in commercial components used for products through the chemSHERPA*4. In FY 2021, we conducted activities with a focus on creating an internal structure, implementing systems, and penetration of the Green Procurement Standards among business partners. We will set specific targets for FY 2022 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 chain

Environment

In August 2021, the ULVAC Group revised its Environmental Philosophy, Environmental Policy, and Environmental Targets in order to further strengthen environmental initiatives.

Environmental Philosophy

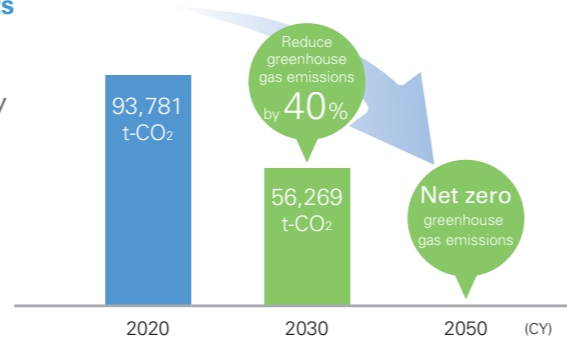
The ULVAC Group understands that the conservation of the global environment is one of the most important issues facing humanity. While effectively utilizing resources in all aspects of our operations, we take into consideration biodiversity so as to contribute to bringing about a better living environment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

Environmental Targets

- 1 Greenhouse gas emission reduction targets
 - Reduce greenhouse gas emissions in 2030 by 40% as compared with 2020
 - Achieve net zero greenhouse gas emissions by 2050
- 2 Eliminate environmental accidents



In FY 2021, as a Group-wide risk management initiative, we classified sites with high environmental impacts, such as those with wastewater treatment facilities or that handle chemical substances, as high-risk sites, and conducted audits from a comprehensive perspective

in the presence of third-party experts. For FY 2022, we added a new environmental target, namely, to “eliminate environmental accidents.” We will conduct audits sequentially at our overseas sites to prevent environmental accidents.

ULVAC Group Environmental Photo Contest

In line with the revision of our Environmental Philosophy and Environmental Policy last year, we held an environmental photo contest, inviting all Group employees and their families to submit photos they associate with the keywords of our Environmental Philosophy: “conservation of the global environment,” “effective utilization of resources,” “biodiversity,” “better living environment,” and “prosperous society.” The Gold Award winning photo is used for the Environmental Philosophy poster distributed throughout the Group to inculcate environmental awareness among employees.



Environmental Philosophy Poster

Environmental Activities in FY 2021

Regarding the material balance, owing to vitalization of the market environment and other factors, the amount of activity increased, especially in regions where major manufacturing sites are located, and electricity consumption increased except in certain regions such as Southeast Asia.

Total waste emissions increased in line with the increase in the amount of activity but the final landfill disposal rate was virtually unchanged compared with the previous fiscal year. We aim to reduce our environmental impacts by reducing waste emissions and promoting recycling.

The Group's overall water consumption decreased as a result of efforts to save water and improve

wastewater treatment at companies that use large amounts of water, such as those engaged in the deposition and coating business.

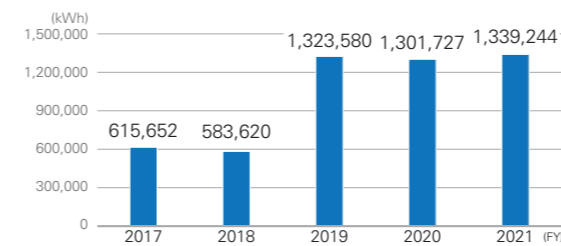
The amount of solar power generated increased as a result of the installation of solar power generation equipment by ULCOAT TAIWAN, Inc. in FY 2019. To reduce greenhouse gas emissions, while continuing energy-saving activities, we will actively consider introduction of renewable energy facilities and purchase of non-fossil certificates. We will continue to promote environmental activities throughout the Group.

Material balance (Source: Aggregate data for FY 2021)

INPUT	
Electricity consumption	168,152 thousand kWh
Gas consumption	LPG: 217 t LNG: 704 t City gas: 1,346 thousand m ³
Fuel consumption	Heavy oil: 11 kL Kerosene oil: 12 kL Diesel oil: 149 kL
Water consumption	1,435 thousand m ³
Packaging materials	823 t

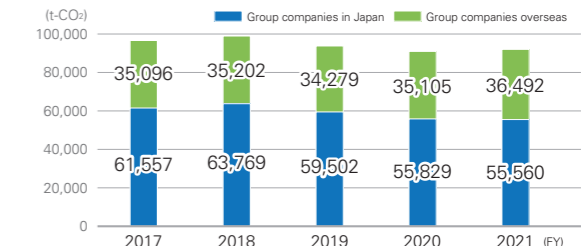
OUTPUT	
CO ₂ emissions	92,052 t (Emissions due to consumption of electricity, gas, and fuels)
Total waste emissions	6,587 t Total amount of waste recycled: 4,426 t Amount of landfill: 93.9 t
Final landfill disposal rate	1.4 %

Amount of solar power generated



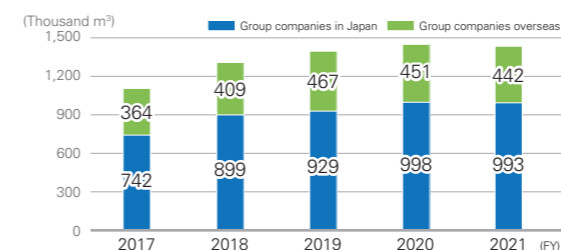
*Figures for FY 2019 onward have been restated to reflect the addition of the amount of solar power generated by ULCOAT TAIWAN, Inc.

Energy-derived CO₂ emissions

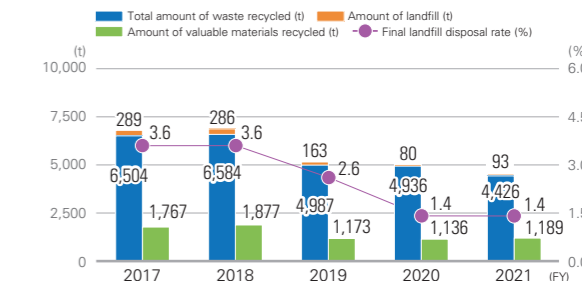


*The emission factors use the Emissions Factors 2021 edition published by the International Energy Agency (IEA).

Water consumption



Waste emissions



“ULVAC Green Products” Certification Program for Environmentally Friendly Products

In accordance with our goal for 2050, we are promoting various environmental activities such as reforestation and biotope conservation, aiming to contribute to creation of an environmentally friendly and sustainable society. In addition, in recent years, there has been a growing trend toward business activities geared to creation of environmentally friendly products. Equipment capable of manufacturing devices in ways that have less impact on the global environment is preferable provided product performance is not compromised.

We established the Environmentally Friendly Products Subcommittee consisting of business divisions and research divisions in FY 2021 and have launched a program to certify products that satisfy our own standards as “ULVAC Green Products.” We will continue refining the framework for creation of environmentally friendly products.

Evaluation Items

Environmental friendliness elements		Items
Resource conservation and recycling	REDUCE	Reduced parts count
		Space-saving, compact, lightweight, and simplified
		Selection of environmentally friendly materials
		Easy-to-assemble, easy-to-disassemble structure
		Reduced maintenance frequency
		Reduced packaging materials
		Reduced consumption of water resources, such as industrial water
REUSE	Active use of reused and recycled items	
	Design for recycling	
RECYCLE	No use of hazardous chemicals	
Climate action	Reduction of electricity consumption	Reduced electricity consumption
		Reduced consumption of cooling water, nitrogen, etc.
	Reduced consumption of energy other than electricity	Use of alternatives to greenhouse gases used in the process and reduced use of greenhouse gases
Other		Reduced noise



“ULVAC Green Products” Certification Process



Example of Green Products: Multi-chamber Sputtering System ENTRON™-EX W300

Relevant items	<ul style="list-style-type: none"> ✓ Reduced parts count ✓ Space-saving, compact, lightweight, and simplified
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In addition to equipment performance and cost competitiveness, environmental friendliness is also an important value criterion, especially in the semiconductor industry. To meet these needs, for the ENTRON™-EX W300 multi-chamber sputtering system, ULVAC reconfigured the main body of the system and surrounding control racks to achieve a smaller footprint (area of the system) and reduce the number of cables used.

The smaller footprint corresponds to the environmental friendliness element of “space-saving, compact, lightweight, and simplified.” A 40% reduction in the space required for the racks was achieved by reducing the number of racks through the use of common parts and reduction of the sizes of parts mounted on multiple racks. At the same time, as a result of a review and reconfiguration of the power supply system, the number of cables was reduced by 40%. This corresponds to the environmental friendliness element of “reduced parts count.” These improvements will lead to resource saving, reduced CO₂ emissions during manufacturing, and reduced assembly man-hours.



ENTRON™-EX W300

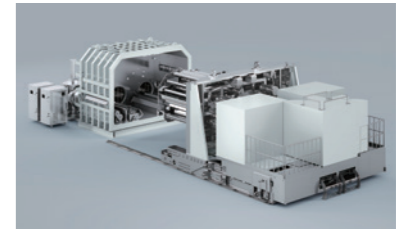
Initiatives at Plants

Analysis of power consumption of large evaporation roll coaters

We are stepping up our efforts to reduce greenhouse gas emissions and working to reduce not only ULVAC's but also our customers' power consumption through the use of ULVAC equipment.

In particular, since large evaporation roll coaters use a lot of electricity, using energy efficiently is a priority. By installing measuring instruments, detailed power consumption of each process is determined in order to maximize overall efficiency of energy use.

Going forward, we will analyze the trend of power consumption of each process by comparing the collected data with the log data of the equipment with a view to further improving the equipment.



Large evaporation roll coater

Change of the temperature setting of the cold/hot water heat source equipment to save energy

The cold/hot water heat source equipment at ULVAC's Fuji Susono Plant is a source of cold water for cooling manufacturing equipment as well as cold water and hot water used by the clean room's air-conditioning systems.

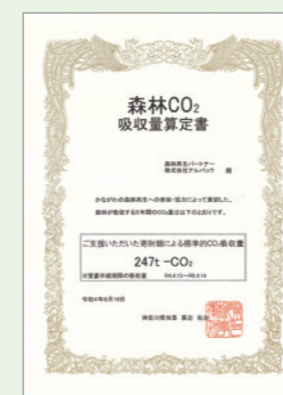
From the viewpoint of reducing greenhouse gas emissions, temperature settings for cold water and hot water were adjusted corresponding to the cycle of the seasons. As a result, the Fuji Susono Plant reduced its annual greenhouse gas emissions by 47.65 tons.

The Fuji Susono Plant will continue endeavoring to further reduce greenhouse gas emissions within the range of temperature control values for production activities and the clean room.



Cold/hot water heat source equipment

Participation in the Reforestation Partner System

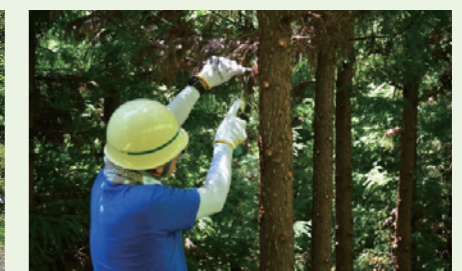


Certification of the calculated amount of CO₂ absorbed by forests

In Kanagawa Prefecture, where ULVAC Head Office/Plant is located, forests cover 39% of the prefecture's land area, a very low figure compared to the national average of 66%. Stewardship activities are being undertaken so as to bequeath flourishing forests, which serve as water resources, to the next generation. In support of this initiative, we have joined the “Reforestation Partner” system promoted by Kanagawa Prefecture. In June 2022, we conducted the first reforestation activity in the 21st Century Forest in Minami-Ashigara City. 53 ULVAC employees, including those from Group companies, and their families participated in the event. In addition to thinning the underbrush, they tried their hand at woodcraft using the wood derived from thinning.

The amount of CO₂ absorbed through forest stewardship under this program is calculated to be 247 tons over five years.

We will continue engaging in various environmental activities to realize our goal for 2050, which is to contribute to creation of an environmentally friendly and sustainable society.



Initiatives to Address Climate Change

Under the Environmental Policy, we offer products that enable our customers to contribute to environmental protection. Initiatives of the ULVAC Group are described below.

Addressing Climate Change

In the context of the growing international awareness of climate change, as evidenced by the widespread pursuit 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 with this issue as a responsible member of society, the ULVAC Group has set medium- to long-term greenhouse gas emission targets for its business activities, namely, a 40% reduction in 2030 (compared

with 2020) and effectively zero in 2050. We will take action to mitigate climate change by endeavoring to curb greenhouse gas emissions throughout our activities, such as by doing our utmost to conserve energy in Japan and overseas, introducing renewable energy with low greenhouse gas emissions, and developing environmentally friendly products.

Initiatives for the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations

In June 2022, we expressed our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We will continue to enrich disclosure in line with the TCFD recommendations and promote dialogue with stakeholders. In addition, we will clarify the impact of climate change-related issues on our operations and implement measures to ensure sustainable growth of our business.



ULVAC has been responding to a survey conducted by CDP*, an international NGO, since FY 2020.

*CDP: A non-governmental organization (NGO) managed by a British charity. CDP sends questionnaires on climate change and other issues to companies and local governments and assesses and discloses the impact of their activities on the environment. When deciding which companies to invest in, CDP scores are considered important criteria.

Governance

Under the supervision of the Board of Directors, the Executive Officers in charge of sustainability and environment monitor progress toward targets.

- Meetings of the Sustainability Promotion Committee attended by the internal directors are held twice each year to acknowledge social trends and the Company's current condition, and discuss measures to address any issues. If significant issues related to management arise, the Board of Executive Officers and the Board of Directors deliberate and make management decisions as needed.

- 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 each year. The committee monitors the setting of targets of each Group company and the progress, checks the status of the initiatives for achievement of the targets, discusses measures corresponding to the issues, and reports to the Board of Executive Officers.

Strategy

Under the scenarios announced by the Intergovernmental Panel on Climate Change (IPCC), the International Energy Agency (IEA), and others, that "the global average temperature will rise by 4°C or more" and "the global average temperature rise will be kept below 2°C (partly up to 1.5°C) as agreed by the Paris Agreement," we identified business risks and opportunities in the medium to long term that will be brought about by climate change. Of these, in FY 2021, we analyzed risks and opportunities

with respect to "carbon pricing," "business continuity risk due to the occurrence of disasters caused by typhoons, torrential rain, and other extreme weather events," and "expansion of market opportunities for power devices" and evaluated quantitative impacts on our business. Going forward, we will expand the scope of quantification of impacts on business and further consider specific measures.

Major risks

Category	Elements	Measures
Market	Increase in business costs due to changes in customer behavior	Introduction of renewable energy and ensuring the implementation of energy-saving measures in business activities
Policies and legal regulations	Carbon pricing	
Engineering	Replacement of existing products and services with those with lower emissions	Research and development of products and services such as manufacturing equipment that contributes to technological innovation in various fields, and promotion of low-power consumption of products
Acute/chronic	Business continuity risk due to extreme weather events such as typhoons and torrential rain	Formulation of business continuity plan for natural disasters and implementation of countermeasures

Major opportunities

Category	Elements	Measures
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	Research and development of products and services such as manufacturing equipment that contributes to technological innovation in various fields, and promotion of low power consumption of products

Risk Management

- The Risk Management Committee, chaired by the president and composed mainly of supervisory divisions, meets regularly, determines company-wide basic policies, monitors and improves the state of management and administration, and applies these policies at the facility and division levels of affiliated companies. Judgment is made at meetings of the Board of Executive Officers as to which risks may have significant financial or strategic impacts on the business.
- Regarding ULVAC's strategies for environmental targets, major action plans, risk management policies, annual budgets, and deliberation and guidance on business plans, as well as the implementation of these targets and monitoring of performance, the Global Environmental Management Committee, chaired by the Executive Officer in charge of the environment, manages and oversees progress.
- We have major development and manufacturing sites in Japan, which account for 64% of the Group's total GHG emissions in Scope 1 and 2. In addition, sites in South Korea account for 15% of the Group's total GHG emissions in Scope 1 and 2, making that country second only to Japan, and they are key sites for the Group's semiconductor business to which great importance is attached from the viewpoint of management strategy. Therefore, future introduction of carbon taxes and tightening of emissions trading regulations in Japan and South Korea would have

significant impacts on costs. Thus, based on the ULVAC Group's GHG emissions in Japan and South Korea in FY 2020, we estimated and confirmed the amounts of impacts in 2030 under the Announced Pledges Scenario (APS), which is one of the scenarios presented in the IEA's World Energy Outlook 2021 and is a scenario that reflects volunteer countries' ambitious pledges. Reductions of GHG emissions at these sites are important for achieving the Group's goal of carbon neutrality. Therefore, a committee headed by the Executive Officer in charge of the environment and related divisions will monitor the risk of energy cost increases and continue to assess this and other risks, for which purpose it will monitor trends. In addition, we will promote initiatives for further energy saving and introduction of renewable energy.

- For Scope 3, environmental impacts in the value chain are significant upstream in procurement from suppliers and downstream in the use of products by customers. Therefore, mindful of the importance of providing environmentally friendly products, we are promoting initiatives to reflect environmental considerations from the development stage onward.
- In formulating a business continuity plan, we assumed the occurrence of disasters caused by typhoons, torrential rain, and other extreme weather events, and are implementing measures to ensure continuing operation of our business.

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 digital society and a carbon-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

11-year Financial Data

Financial Data

		FY2011 2012.6	FY2012 2013.6	FY2013 2014.6	FY2014 2015.6
	(Unit)				
Key financial results					
Net sales*1	Millions of yen	196,804	163,351	173,878	179,174
Operating profit	Millions of yen	(6,384)	6,115	11,996	11,132
Ordinary profit	Millions of yen	(6,497)	6,264	13,384	12,475
Profit attributable to owners of parent*2	Millions of yen	(49,984)	(3,807)	11,538	8,874
Net assets	Millions of yen	41,187	59,436	72,238	84,928
Total assets	Millions of yen	249,651	243,289	230,791	242,348
Cash flows from operating activities	Millions of yen	(8,492)	22,357	32,213	21,992
Cash flows from investing activities	Millions of yen	(11,328)	(4,506)	(3,023)	(4,055)
Cash flows from financing activities	Millions of yen	12,616	(3,619)	(16,881)	(14,895)
Cash and cash equivalents at end of period	Millions of yen	28,180	44,204	57,012	61,670
Key performance indicators					
Net assets per share	Yen	751.00	806.38	1,040.23	1,398.66
Earnings per share	Yen	(1,012.94)	(87.79)	223.18	172.73
Shareholders' equity ratio	%	14.8	22.7	29.2	32.8
ROE (return on equity)*3	%	—	—	18.8	12.1
Ordinary profit to total assets ratio*4	%	—	2.5	5.6	5.3
Price-earnings ratio*5	Times	—	—	9.66	10.91
Other indicators					
Capital expenditure	Billions of yen	12.7	6.8	6.2	6.7
R&D cost	Billions of yen	7.1	5.0	5.2	5.6
Interest-bearing debt	Billions of yen	120.2	106.1	89.6	82.6
Dividends	Yen	—	—	—	10.0
Dividend payout ratio	%	—	—	—	5.8
Number of employees	Persons	6,981	6,579	5,971	5,904

*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 "profit attributable to owners of parent" is presented instead of "profit."

*3 ROE (return on equity) figures for FY2011 and FY2012 are not presented because the Company recorded a net loss for these periods.

*4 The Ordinary profit to total assets ratio for FY2011 is not presented because the Company recorded an ordinary loss for FY2011.

*5 Price-earnings ratios for FY2011 and FY2012 are not presented because the Company recorded a net loss for these periods.

	FY2015 2016.6	FY2016 2017.6	FY2017 2018.6	FY2018 2019.6	FY2019 2020.6	FY2020 2021.6	FY2021 2022.6
	192,437	231,831	249,271	220,721	185,402	183,011	241,260
	17,864	29,468	35,351	23,828	15,958	17,197	30,061
	18,373	29,716	36,907	25,575	18,052	17,966	32,200
	16,698	24,469	35,904	18,665	10,769	14,830	20,211
	78,032	104,917	154,069	157,588	161,093	173,699	196,484
	219,561	245,306	297,418	282,302	282,350	292,761	354,304
	23,708	37,818	19,086	18,282	18,738	25,520	33,931
	(5,593)	(13,713)	(1,564)	(9,448)	(4,143)	(6,925)	(7,432)
	(32,448)	(22,580)	(10,734)	(5,844)	7,455	(16,061)	(6,445)
	44,862	47,555	54,348	55,859	77,948	83,061	107,106
	1,477.29	2,002.90	2,994.12	3,062.39	3,132.22	3,388.87	3,837.17
	338.37	496.35	728.68	378.78	218.54	301.12	410.37
	33.2	40.2	49.5	53.5	54.6	57.0	53.3
	21.9	28.5	29.2	12.5	7.1	9.2	11.4
	8.0	12.8	13.6	8.8	6.4	6.2	9.1
	9.21	10.88	5.82	9.02	14.23	18.70	11.26
	7.0	8.3	12.9	12.9	10.3	10.0	11.0
	6.3	6.9	8.3	9.2	8.4	8.4	10.3
	62.7	42.7	35.7	35.6	49.8	39.5	39.5
	30.0	50.0	95.0	105.0	80.0	95.0	124.0
	8.9	10.1	13.0	27.7	36.6	31.5	30.2
	5,886	6,072	6,439	6,424	6,370	6,063	6,235

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, 2022.

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

For the fiscal year ended June 30, 2022 (FY 2021), net sales amounted to ¥241,260 million, an increase of 31.8% year on year. Regarding FPD production equipment, orders received and net sales increased due to active investment in LCDs for tablets, PCs, and IT panels for automotive and other applications, as well as continued investment in OLEDs for smartphones and tablets. Regarding semiconductor and electronic device production equipment, net sales increased from the previous fiscal year owing to continued investment in memory and increased investment in logic, as well as an increase in orders received for production equipment for electronic devices, such as power devices and optical devices, despite the impact of longer delivery lead times for parts and materials.

Operating profit margin was 12.5%, up 3.1 percentage points, a significant improvement from the previous fiscal year. This was mainly attributable to the results of the enhancement of manufacturing capabilities, which is an initiative of the mid-term management plan, and an increase in net sales.

R&D cost totaled ¥10,340 million, an increase of ¥1,965 million from the previous fiscal year. The ratio of R&D cost to net sales was 4.3%, a decrease of 0.3 percentage points from the previous fiscal year due to an increase in net sales. Strengthening research and development capabilities is one of the main initiatives in the mid-term management plan, and the ULVAC Group is continuing to emphasize investment with a view to future growth.

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

■ Vacuum Equipment Business

Segment net sales increased 32.3% year on year to ¥200,098 million. This was mainly attributable to an increase in orders received for LCD and OLED equipment for IT panels in FPD production equipment. In addition, net sales of semiconductor and electronic device production equipment were above the level of the previous fiscal year because of an increase in orders received for production equipment for memory and for logic as well as an increase in orders received for production equipment for electronic devices, such as power devices and optical devices.

Segment profit margin improved from 10.3% for the previous fiscal year to 13.6% for the fiscal year under review. This was mainly attributable to the results of the enhancement of manufacturing capabilities in FPD

production equipment and electronic device production equipment, which is an initiative of the mid-term management plan, and an increase in net sales. Regarding objective indicators for evaluating the degree of achievement of the management policies, management strategies, and management objectives, we are implementing the mid-term management plan, "Breakthrough 2022," which covers three years from FY 2020 (fiscal year ended June 30, 2021). The basic policy of this mid-term management plan is twofold: "investment in development for growth (selection and concentration)" and "profit-oriented management through structural change." Under this policy, the ULVAC Group will use net sales, gross profit margin, operating profit margin, return on equity (ROE), and operating cash flow as key performance indicators.

We revised quantitative targets for the third year (FY 2022) of the mid-term management plan in August 2022. Quantitative targets after the revision are net sales of ¥250.0 billion (revised from ¥235.0 billion), gross profit margin of 33% (revised from 35% or above), operating profit of ¥34.5 billion (revised from ¥38.0 billion), operating profit margin of 13.8% (revised from 16% or above), ROE of 12% (revised from 13% or above), and operating cash flow of ¥24.0 billion (revised from ¥29.0 billion). The Group aims to achieve further growth from a medium- to long-term perspective by implementing specific initiatives to attain the targets of the new mid-term management plan.

production equipment and electronic device production equipment, which is an initiative of the mid-term management plan, and an increase in net sales.

■ Vacuum Application Business

Segment net sales increased 29.7% year on year to ¥41,162 million. Higher segment net sales were attributable to an increase in sales of materials resulting from higher utilization rates at customer plants related to semiconductors, electronic devices, and FPDs, as well as an increase in sales related to surface analyzers and mask blanks for high-definition and high-performance displays.

Segment profit margin improved from 6.8% for the previous fiscal year to 7.1% 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 2021 amounted to ¥354,304 million, having increased ¥61,543 million compared with the figure at the previous fiscal year-end. The main factors were an increase of ¥26,496 million in cash and deposits due to an improvement in operating cash flow resulting from strengthening of cash flow management, which is an initiative under the Group's mid-term management plan, an increase of ¥20,042 million in notes and accounts receivable - trade, and contract assets mainly due to an increase in orders received, and an increase of ¥12,282 million in inventories.

Total liabilities amounted to ¥157,820 million, having increased ¥38,758 million compared with the figure at the previous fiscal year-end. The main factors were

an increase of ¥18,957 million in notes and accounts payable - trade, and an increase of ¥12,587 million in contract liabilities mainly due to an increase in orders received.

Net assets amounted to ¥196,484 million, having increased ¥22,786 million compared with the figure at the previous fiscal year-end. The main factors were an increase of ¥14,941 million in retained earnings mainly due to the recording of profit attributable to owners of parent and an increase of ¥8,150 million in foreign currency translation adjustment due to the impact of the weak yen.

As a result, the shareholders' equity ratio at the end of FY 2021 was 53.3%.

Cash Flows

Cash and cash equivalents at the end of FY 2021 amounted to ¥107,106 million, having increased ¥24,044 million compared with the figure at the previous fiscal year-end, partly due to the positive effect of exchange rate change on cash and cash equivalents amounting to ¥3,991 million, reflecting the weak yen. 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 ¥33,931 million owing to the recording of profit before income taxes and depreciation. In addition, while orders received trended upward, improvement of the cash conversion cycle (CCC) through strengthening of cash flow management and other measures with the objective of improving capital efficiency also contributed to an increase in cash inflow.

Cash Flows from Investing Activities

Net cash used in investing activities amounted to ¥7,432 million. Factors for cash outflow included purchase of

property, plant and equipment and intangible assets, while factors for cash inflow included proceeds from sale of shares of subsidiaries and associates. As a result, free cash flow was ¥26,498 million.

Cash Flows from Financing Activities

Net cash used in financing activities amounted to ¥6,445 million. Generated free cash flow was used for the payment of cash dividends and other payments.

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.

While the outlook is unclear owing to the global COVID-19 pandemic, increased geopolitical risks due to the protracted situation in Ukraine and other factors, the Group has secured sufficient liquidity in hand in order to ensure preparedness for contingencies. 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)

	FY2020 (As of June 30, 2021)	FY2021 (As of June 30, 2022)
Assets		
Current assets		
Cash and deposits	91,545	118,040
Notes and accounts receivable - trade	66,289	—
Notes and accounts receivable - trade, and contract assets	—	86,331
Merchandise and finished goods	4,064	4,500
Work in process	22,785	29,090
Raw materials and supplies	10,309	15,849
Other	7,858	10,562
Allowance for doubtful accounts	(319)	(525)
Total current assets	202,530	263,847
Non-current assets		
Property, plant and equipment		
Buildings and structures	83,821	85,821
Accumulated depreciation	(55,500)	(58,939)
Buildings and structures, net	28,321	26,883
Machinery, equipment and vehicles	79,326	78,272
Accumulated depreciation	(60,073)	(62,537)
Machinery, equipment and vehicles, net	19,253	15,735
Tools, furniture and fixtures	14,098	14,682
Accumulated depreciation	(12,651)	(12,908)
Tools, furniture and fixtures, net	1,448	1,774
Land	8,480	8,360
Leased assets	4,516	5,079
Accumulated depreciation	(1,549)	(1,922)
Leased assets, net	2,967	3,157
Construction in progress	5,617	9,087
Total property, plant and equipment	66,086	64,995
Intangible assets		
Leased assets	34	27
Software	1,347	1,603
Other	2,115	2,085
Total intangible assets	3,496	3,715
Investments and other assets		
Investment securities	7,360	6,882
Deferred tax assets	6,385	6,990
Other	8,763	9,869
Allowance for doubtful accounts	(1,859)	(1,995)
Total investments and other assets	20,649	21,746
Total non-current assets	90,231	90,457
Total assets	292,761	354,304

(Millions of yen)

	FY2020 (As of June 30, 2021)	FY2021 (As of June 30, 2022)
Liabilities		
Current liabilities		
Notes and accounts payable - trade	36,073	55,030
Short-term borrowings	8,508	9,618
Lease liabilities	722	679
Income taxes payable	2,182	3,813
Advances received	12,659	—
Contract liabilities	—	25,245
Provision for bonuses	3,048	5,918
Provision for bonuses for directors (and other officers)	355	404
Provision for product warranties	1,222	1,387
Provision for loss on orders received	1,253	16
Other	11,797	14,651
Total current liabilities	77,819	116,762
Non-current liabilities		
Long-term borrowings	30,943	29,910
Lease liabilities	2,361	2,562
Deferred tax liabilities	42	128
Retirement benefit liability	6,968	7,400
Provision for share awards for directors (and other officers)	198	272
Asset retirement obligations	406	416
Other	326	368
Total non-current liabilities	41,243	41,057
Total liabilities	119,062	157,820
Net Assets		
Shareholders' equity		
Share capital	20,873	20,873
Capital surplus	3,912	3,912
Retained earnings	137,573	152,514
Treasury shares	(343)	(344)
Total shareholders' equity	162,015	176,955
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	2,174	1,440
Foreign currency translation adjustment	4,132	12,282
Remeasurements of defined benefit plans	(1,422)	(1,700)
Total accumulated other comprehensive income	4,884	12,022
Non-controlling interests	6,800	7,508
Total net assets	173,699	196,484
Total liabilities and net assets	292,761	354,304

Consolidated Financial Statements

Consolidated Statements of Income

(Millions of yen)

	FY2020 (July 1, 2020-June 30, 2021)	FY2021 (July 1, 2021-June 30, 2022)
Net sales	183,011	241,260
Cost of sales	129,247	167,517
Gross profit	53,764	73,743
Selling, general and administrative expenses		
Selling expenses	14,801	18,036
General and administrative expenses	21,766	25,646
Total selling, general and administrative expenses	36,567	43,682
Operating profit	17,197	30,061
Non-operating income		
Interest income	199	248
Dividend income	650	745
Foreign exchange gains	—	571
Share of profit of entities accounted for using equity method	569	861
Other	1,742	1,312
Total non-operating income	3,160	3,736
Non-operating expenses		
Interest expenses	498	410
Foreign exchange losses	373	—
Commission for syndicated loans	—	195
Other	1,520	994
Total non-operating expenses	2,391	1,598
Ordinary profit	17,966	32,200
Extraordinary income		
Gain on sales of investment securities	4,998	343
Gain on sale of shares of subsidiaries and associates	—	797
Gain on sales of non-current assets	55	59
Total extraordinary income	5,053	1,199
Extraordinary losses		
Loss on disposal of non-current assets	99	—
Impairment losses	—	3,090
Loss on liquidation of subsidiaries and associates	378	—
Expenses for COVID-19 measures	984	1,028
Total extraordinary losses	1,460	4,118
Profit before income taxes	21,559	29,280
Income taxes - current	4,867	7,549
Income taxes - deferred	1,218	290
Total income taxes	6,085	7,839
Profit	15,474	21,441
Profit attributable to non-controlling interests	644	1,231
Profit attributable to owners of parent	14,830	20,211

Consolidated Statements of Comprehensive Income

(Millions of yen)

	FY2020 (July 1, 2020-June 30, 2021)	FY2021 (July 1, 2021-June 30, 2022)
Profit	15,474	21,441
Other comprehensive income		
Valuation difference on available-for-sale securities	(3,137)	(738)
Foreign currency translation adjustment	4,748	8,015
Remeasurements of defined benefit plans, net of tax	58	(279)
Share of other comprehensive income of entities accounted for using equity method	342	624
Total other comprehensive income	2,010	7,622
Comprehensive income	17,483	29,063
Comprehensive income attributable to		
Comprehensive income attributable to owners of parent	16,467	27,348
Comprehensive income attributable to non-controlling interests	1,016	1,714

Consolidated Statements of Cash Flows

(Millions of yen)

	FY2020 (July 1, 2020-June 30, 2021)	FY2021 (July 1, 2021-June 30, 2022)
Cash flows from operating activities		
Profit before income taxes	21,559	29,280
Depreciation	8,386	8,587
Impairment losses	—	3,090
Loss on disposal of non-current assets	99	—
Increase (decrease) in allowance for doubtful accounts	(823)	203
Increase (decrease) in provision for bonuses	217	2,593
Increase (decrease) in retirement benefit liability	(402)	(38)
Increase (decrease) in provision for share awards for directors (and other officers)	42	75
Increase (decrease) in provision for product warranties	(508)	67
Increase (decrease) in provision for loss on orders received	(70)	(906)
Interest and dividend income	(850)	(993)
Interest expenses	498	410
Loss (gain) on sale of investment securities	(4,998)	(343)
Loss (gain) on sale of shares of subsidiaries and associates	—	(797)
Loss (gain) on sale of non-current assets	(55)	(59)
Share of loss (profit) of entities accounted for using equity method	(569)	(861)
Decrease (increase) in trade receivables	2,505	(16,971)
Decrease (increase) in inventories	(2,568)	(11,348)
Increase (decrease) in trade payables	3,215	15,544
Increase (decrease) in advances received	153	—
Increase (decrease) in net contract liabilities	—	10,788
Increase (decrease) in accrued consumption taxes	65	594
Other	3,004	(850)
Subtotal	28,899	38,067
Interest and dividends received	1,178	1,573
Interest paid	(505)	(407)
Income taxes paid	(4,052)	(5,302)
Cash flows from operating activities	25,520	33,931
Cash flows from investing activities		
Payments into time deposits	(11,033)	(20,656)
Proceeds from withdrawal of time deposits	5,338	18,908
Purchase of property, plant and equipment and intangible assets	(7,147)	(7,344)
Proceeds from sale of property, plant and equipment and intangible assets	277	224
Proceeds from sale of investment securities	5,346	391
Proceeds from sale of shares of subsidiaries and associates	—	1,200
Other	295	(155)
Cash flows from investing activities	(6,925)	(7,432)
Cash flows from financing activities		
Net increase (decrease) in short-term borrowings	(361)	331
Proceeds from long-term borrowings	3,750	5,400
Repayments of long-term borrowings	(13,689)	(5,685)
Repayments of lease liabilities	(825)	(741)
Dividends paid	(3,945)	(4,684)
Purchase of treasury shares	(1)	(0)
Dividends paid to non-controlling interests	(984)	(1,065)
Other	(5)	—
Cash flows from financing activities	(16,061)	(6,445)
Effect of exchange rate change on cash and cash equivalents	2,468	3,991
Net increase (decrease) in cash and cash equivalents	5,002	24,044
Cash and cash equivalents at beginning of period	77,948	83,061
Increase in cash and cash equivalents resulting from merger with unconsolidated subsidiaries	112	—
Cash and cash equivalents at end of period	83,061	107,106

Company Data/Stock Information

Company Profile As of June 30, 2022

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 1,361 Consolidated 6,235

Directors, Auditors and Executive Officers As of September 29, 2022

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

Stock Information As of June 30, 2022

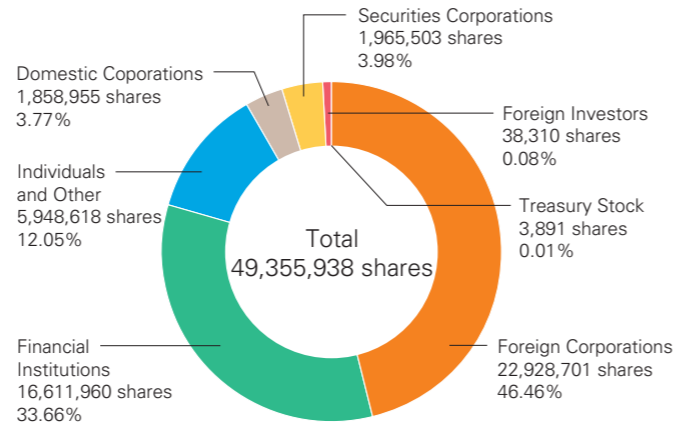
Total number of shares authorized	100,000,000
Total number of shares issued	49,355,938
Total number of shareholders	15,152

Major Shareholders

Shareholder's name	Number of shares (Thousands)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd.	6,639	13.45
Nippon Life Insurance Company	3,242	6.57
Custody Bank of Japan, Ltd.	3,094	6.27
TAIYO FUND,L.P.	2,552	5.17
BBH (LUX) FOR FIDELITY FUNDS-GLOBAL TECHNOLOGY POOL	1,853	3.75
TAIYO HANEI FUND,L.P.	1,192	2.42
BNP PARIBAS SECURITIES SERVICES LUXEMBOURG/JASDEC SECURITIES/UCITS ASSETS	1,074	2.18
STATE STREET BANK AND TRUST COMPANY 505227	1,039	2.10
STATE STREET BANK AND TRUST COMPANY 505038	744	1.51
JAPAN SECURITIES FINANCE CO., LTD.	648	1.31

Note: Treasury stock (3,891 shares) is excluded from the calculation of shareholding ratios.

Number of Shares Held by Shareholder Type



Share Price* and Trading Volume



*The Company's share price and the TOPIX index indicated by line graphs as of June 30, 2012 are 100.

TSR (Total Shareholder Return)*

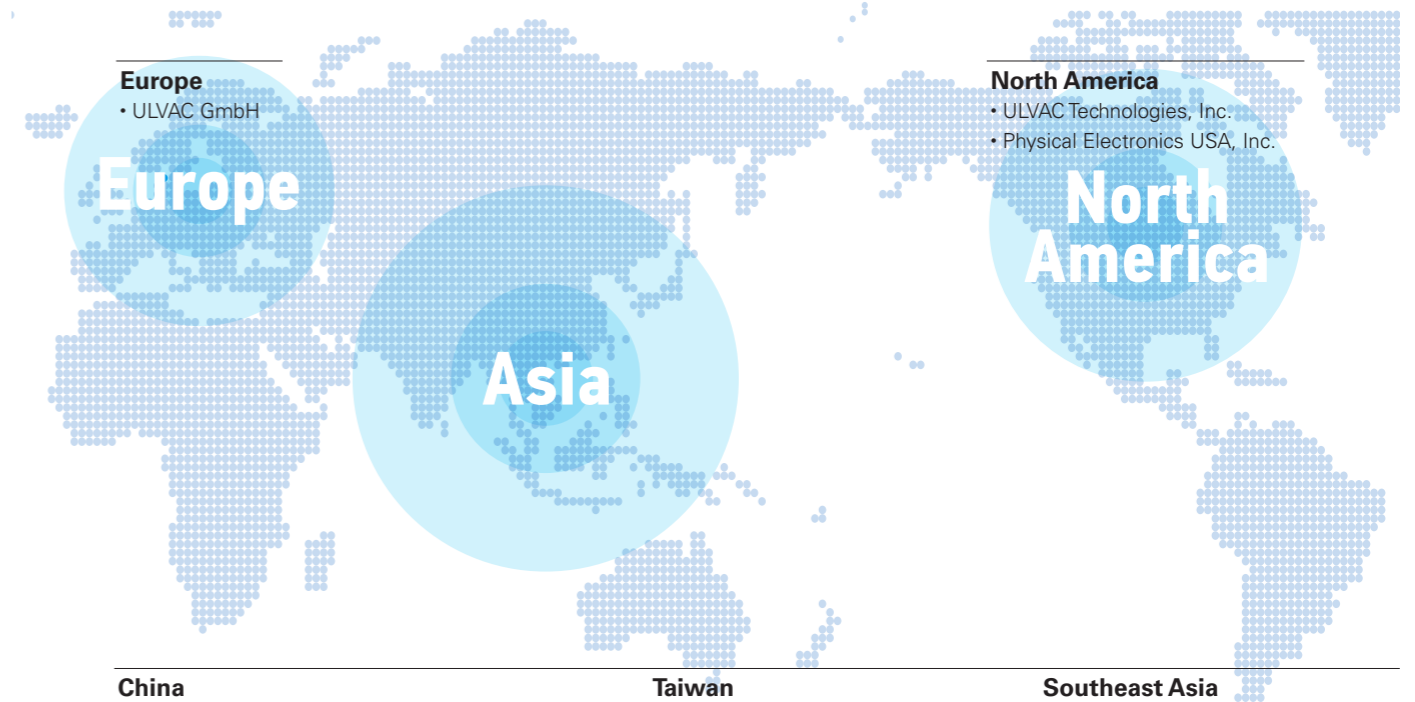
Annualized TSR

Shareholding period	3 years	5 years	10 years
ULVAC, Inc.	144.0%	94.8%	715.5%
TOPIX	129.4%	130.3%	302.4%

*TSR is the overall yield for shareholders that takes into account both capital gains and dividends. By referring to the formula prescribed by the Cabinet Office Ordinances, the yield for each shareholding period at the end of FY 2021 is calculated. The closing price at the end of FY 2018, at the end of FY 2016, and at the end of FY 2011 is used as the base stock price at the start of investment for each investment period of 3 years, 5 years, and 10 years, respectively.

ULVAC Group Companies As of September 30, 2022

- ULVAC TECHNO, Ltd.
- ULVAC KIKO, Inc.
- ULVAC EQUIPMENT SALES, Inc.
- ULVAC CRYOGENICS INCORPORATED
- ULVAC-PHI, Inc.
- TIGOLD CORPORATION
- ULVAC COATING CORPORATION
- NISSIN SEIGYO Co., LTD.
- FINE SURFACE TECHNOLOGY CO., LTD.
- SHOWA SHINKU CO., LTD.



Europe

- ULVAC GmbH

North America

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

China

- ULVAC (CHINA) HOLDING CO., LTD.
- ULVAC (NINGBO) CO., LTD.
- ULVAC (SUZHOU) CO., LTD.
- ULVAC Orient (Chengdu) Co., Ltd.
- ULVAC ORIENT TEST AND MEASUREMENT TECHNOLOGY (CHENGDU) CO., LTD.
- ULVAC Automation Technology (Shanghai) Corporation
- ULVAC Tianma Electric (Jingjiang) Co., Ltd.
- ULVAC (Shenyang) Co., Ltd.
- ULVAC (Shanghai) Trading Co., Ltd.
- ULVAC Materials (Suzhou) Co., Ltd.
- ULVAC CRYOGENICS (NINGBO) INCORPORATED
- ULVAC Research Center SUZHOU Co., Ltd.
- Hong Kong ULVAC Co., Ltd.
- ULVAC VACUUM EQUIPMENT (SHANGHAI) CO., LTD.
- ULVAC Coating Technology (HEFEI) Co., Ltd.

Taiwan

- ULVAC TAIWAN INC.
- ULTRA CLEAN PRECISION TECHNOLOGIES CORP.
- 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 CRYOGENICS KOREA INCORPORATED

Southeast Asia

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