### ULVAC

### ULVAC, Inc.

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## **ULVAC REPORT** 2015

CSR & Annual Report



#### **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**

- Improvement of Customer Satisfaction
- A Free and Open Culture
  - Enhancement of Corporate Value
- Innovative Product Development

• Innovative Production Technology



#### **Corporate Profile of the ULVAC Group**

1

•Name:	ULVAC, Inc.
•Trademark:	ULVAC
•Head Office:	2500 Hagisono, Chigasaki, Kanagawa
•Established:	August 23, 1952
•Capital:	¥20,873,042,500
•Number of Employees:	Non-consolidated 1,097 Consolidated 5,904 (As of June 30, 2015)
•Business Areas:	Development, manufacturing, sale and customer support for vacuum equipment, peripheral devices, vacuum components and materials for the display, s

solar cell, semiconductor, electronic, electric, metal, machinery, automobile, chemical, food product and medical product industries, as well as universities and research labs, and import and export of various equipment. Additionally, research guidance and technical advising on vacuum technologies in general.

#### **Business Segments of the ULVAC Group**

#### Vacuum equipment business

#### FPD and PV production eq

- Liquid crystal display (LCD) production
- equipment Organic LED production equipment
- Inkjet printing production equipment
- Roll coater (evaporation and sputtering)
- Solar cell production equipment
- (crystalline silicon and compound)

#### conductor and Electronic device production equipme

- Semiconductor (memory, logic, power or other semiconductors) production equipment
- LED production equipment
- Electronic device production equipment
- Com Vacuum pumps Vacuum gauges • Helium leak detectors Process gas monitor Spectroscopic ellipsometer • EB, RF and DC power generator Vacuum valve
- Deposition controller Vacuum robot

- Vacuum heat-treating furnaces Vacuum melting furnaces
- Vacuum brazing furnaces • Rare-earth magnet production equipment • Vacuum freeze-drying equipment
  - High-vacuum distillation equipment Automatic Leak Tester







#### Vacuum application business

#### Materials

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

#### Others

 Surface analyzers Controllers Mask blanks

#### We have integrated the previous Annual Report and the CSR Report into this ULVAC REPORT three years ago. This report is published to promote understanding of the ULVAC Group's operating results and CSR activities among our stakeholders, and we consider it an important communications tool.

#### Published: December 2015

**Editorial Policy** 

(Previous Japanese edition published in September 2014; the next edition is to be published in September 2016)

#### Guidelines Referenced

ISO26000; 2010 (Guidance on social responsibility) first Edition

#### **Report's Scope and Period** [Scope]

#### ULVAC Group

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

#### [Period]

Vear ended June 30, 2015 (July 1, 2014 to June 30, 2015) Portions with information relating to periods other than the above are indicated.

#### (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.

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# ULVAC GROUP'S HISTORY

### The spirit of the ULVAC Group, passed down over more than 60 years

Vacuum technology is now an indispensable part of a range of manufacturing processes.

As the world's only comprehensive vacuum products manufacturer, ULVAC provides products to industry and research institutions etc.

The DNA of young researchers with the ambition to "contribute to Japanese industry through vacuum technology" has been passed down to this day. ULVAC has been providing the latest technology to the world for more than 60 years.

#### The story of ULVAC's establishment - the 6 angels\* and ULVAC -

ULVAC was established in 1952, which was a year in which Japan was attempting post-war recovery and it was unimaginable that vacuum technology could form the basis for a business, let alone contribute to manufacturing



ULVAC was established in that time period with the blessing of 6 angels, led by Konosuke Matsushita, who is known as the god of management and is the founder of Matsushita Electric Industrial Co., Ltd. (now Panasonic).

The 6 angels were moved by the devoted passion of young researchers such as Jin Imachi, Chikara Hayashi, and Hideo Shibata, who came together with the aim of "establishing vacuum technology in Japan and contributing to Japanese industry" and invested accordingly. These investments resulted in ULVAC (then Japan Vacuum Engineering Co., Ltd.)





Referring to the individual investors who invest in, advise, and guide a venture busines:









Konosuke

Matsushita

President of

Matsushita Electri

Industrial Co. 1 td

#### Origin of the "ULVAC" trademark: Striving for the ultimate

### 1963

Executive Director Chikara Hayashi unveils the "ULVAC" trademark when it is first introduced



In the 1960s, as products developed by ULVAC began to contribute to Japanese industry bit by bit, more and more advanced vacuum technology became sought after.

The Company unveiled the "ULVAC" trademark in 1963, in order to clearly demonstrate the critical nature of the demands placed on vacuum technology. The name "ULVAC" is an abbreviation of "ULtimate in VACuum" (striving to be the ultimate in vacuums).

In 1969, the corporate name "Japan Vacuum Engineering Co., Ltd." was changed to "ULVAC Corporation" (currently "ULVAC, Inc.") and the Japanese corporate name was adapted in 2001, when the brand name "ULVAC" had become well-known by many users.



1952~

- 1952 Established Japan Vacuum Engineering Co., Ltd. Received first order for vacuum evaporation equipment to plate automotive parts from Hakkosha (now Ichiko
- Industries, Ltd.) 1955 • Opened Omori Plant and commenced domestic equipment production
- Merged with Toyo Seiki 1956 Vacuum Research Corporation
- 1959 (1956) and expanded operations to become a comprehensive vacuum products manufacturer through the transferal of engineers from the Tokuda Manufacturing Co., Ltd. (1959)

1959 • Opened the Yokohama Plant 1960 Developed successive large-scale vacuum devices for heavy industries, such as vacuum melting furnaces and vacuum distillation equipment 1964 • Established ULVAC's first

1960-

- Kona • Completed Chigasaki Head 1968
- 1975

1970~

- overseas subsidiary in Hong
- Office and Plant
- 1972 Opened the Institute for uper Materials as UI VAC's first dedicated research facility • Received order from IBM for
  - System 731, which was the world's first fully automated vacuum evaporation equipment



the scope of application to fields such as high-performance electronic components



sensors.



#### The world's first liquid crystal display and ULVAC

1973

The world's first LCD calculator display

2 DBD. PB

Transparent conductive film deposition equipment that contributed to the development of the liquid crystal display

Electrical tabletop calculating device (calculator) is one of the great global hit products created by Japanese companies, and they made a tremendous contribution to Japan by allowing cutting-edge semiconductor and liquid crystal display manufacturing technology to take hold domestically.

In 1973, ULVAC perfected the transparent conductive film trial manufacture and production equipment, which was a key to the manufacturing process for the Sharp hit product ELSI MATE EL-805 LCD calculator. Leveraging this experience, ULVAC gained the top global share of display device manufacturing equipment for LCD flat-screen TVs.

#### 2010~ 2005~ **2011** • Established the South Korea Institute for Super Materials in South Korea 2005 • Established a large-scale production center for large 2012 • Celebrated the liquid crystal display Company's 60th manufacturing equipment ir anniversarv South Korea 2015 • Established the Future 2006 • Established a production Technology Research subsidiary for large liquid Laboratory crystal display manufacturing equipment in Taiwan • Opened the Chiba Tomisato 2007 Plant to handle development and production of materials Received order for a thin-film photovoltaic modules production turnkey line 2008 • Developed the Magrise mass-production system for rare-earth magnets and thin-film lithium rechargeable battery integrated mass-production technology

Developed in 1983, ULVAC's roll-to-roll vacuum deposition equipment contributed greatly to the manufacturing process for high-performance 8mm video tape.

Throughout the history of vacuum technology ULVAC has contributed to a broad range of fields, spanning video tape through to floppy disks,

hard disks, magneto-optical disks, and card-type memory, as well as peripheral devices that use these storage media, such as magnetic heads and optical

as post-FPD businesses





#### Interview with Top Management

Promoting group-wide unified management, the evolution of manufacturing and science, and contributing to sustainable social development in order to boldly strive to create new value

### Hisaharu Obinata President and Chief Executive Officer

#### Looking back on the fiscal year ended June 30, 2015

Q1 Please tell us about the business environment and results for this consolidated fiscal year (year ended June 2015).

#### A1 ACHIEVING PROFITS IN EXCESS OF PLAN'S TARGETS

The electronics market, in which the ULVAC Group operates, continues to be buoyed by smartphones, with an increase in shipment of small to medium-sized LCD panels, semiconductors and other electronic components that are used as smartphone components. With regard to capital investment in LCD production equipment, a lull was observed early in the fiscal year due to the completion of a round of investment by various companies and the market remained generally sluggish;

(unit: billion yen)

#### **Business Results**

	(Reference)	June 2015				
	June 2014	Plan*	Results	Year-on-year		
Orders received	169.8	170.0	182.7	12.9 +7.6%		
Year-end order backlog	67.2	62.2	73.0			
Net sales	173.9 175.0 179.2	5.3 +3.0%				
Operating profit	12.0	9.0	11.1	(0.9) (7.2%)		
Operating profit to net sales (%)	6.9%	5.1%	6.2%			
Ordinary profit	13.4	3.4 8.5 12.5	(0.9) (6.8%)			
Ordinary profit to net sales (%)	7.7%	4.9%	7.0%			
Net income	11.5	6.5	8.9	(2.7) (23.1%)		
			* Values publis	hed in August 2014		

however, signs of renewed investment in the second half of the fiscal year reinvigorated the market. In the automobile market, sales of eco-friendly cars remained strong, causing capital investment in automotive parts, including car electronics products, to remain steady.

In this business environment, the consolidated results for the fiscal year ended June 30, 2015 showed a year-on-year increase in both orders received and net sales, with orders received amounting to ¥182.7 billion (a year-on-year increase of 7.6%), and net sales totaling ¥179.2 billion (a year-on-year increase of 3.0%). With regard to profit and loss, although operating profit, ordinary profit and net income all showed a year-on-year decrease, with operating profit of ¥11.1 billion (a year-on-year decrease of 7.2%), ordinary profit of ¥12.5 billion (a year-on-year decrease of 6.8%) and net income of ¥8.9 billion (a year-on-year decrease of 23.1%), these figures still exceeded our initial targets under the plan.

Q2 How do you rate your results for this consolidated fiscal year (year ended June 2015)?

#### A2 IMPROVING OUR ABILITY TO GENERATE STEADY PROFITS BY THOROUGHLY IMPLEMENTING 'FRONT LOADING'

Three years has passed since I took on the role of president in 2012. In that time, I truly feel that the group as a whole has achieved its targets under the plan in a challenging business environment and has improved its ability to generate steady profits by coming together as one and working towards structural business reform. Major factors that

have contributed to this have included (1) thoroughly establishing a structure that grasps the current business conditions and is able to respond immediately to unforeseen volatility, and (2), creating a manufacturing system to generate income according to our plan. This is a result of focusing the knowledge that the ULVAC Group has fostered up to this point, such as past data and technical specifications, and thoroughly implementing 'front loading,' which ensures that thorough precautions are already in place before work begins to ensure stable and trouble-free manufacturing. I believe that this is the reason we were able to generate income in excess of our targets under the plan.

 $\bigcup$  How would you describe the financial soundness of the group?

### A3 WE FULLY REDEEMED PREFERRED STOCK.

In September 2012, the Company issued ¥15 billion worth of class A classified stock in an attempt to seriously promote structural business reform. As a result, there was considerable reform to the financial structure, such as an increase in consolidated net assets and cash on hand equivalents, as well as a reduction in interest-bearing debt. In November 2014, a portion of these shares (¥5 billion capital) was purchased and cancelled. Furthermore, in July 2015, we were also able to purchase and cancel the remaining class A classified stock (¥10 billion capital).

#### Outlook for the fiscal year ending June 30, 2016 and progress of the medium-term management plan

Q4 Please tell us about the outlook for the fiscal year ending June 2016.

#### A4 ORDERS AND SALES ARE PREDICTED TO MEET THE PLAN'S TARGETS AND PROFITS ARE PREDICTED TO EXCEED TARGETS.

In the fiscal year ending June 30, 2016, which is the second year of the medium-term management plan, we anticipate that orders and sales will each amount to ¥190 billion, which will meet the targets under the plan. In addition, we anticipate that profits will exceed targets under the medium-term management plan, with operating income of ¥14.5 billion (¥13 billion under the medium-term management plan), ordinary income of ¥13 billion (¥12 billion under the plan) and net income reverting to the parent company of ¥10 billion (¥9 billion under the plan. (Profits were upwardly revised on November 11, 2015.)

#### Progress of the medium-term management plan

Interview         Interview <t< th=""><th>-</th><th>-</th><th></th><th>(unit: billion yen)</th></t<>	-	-		(unit: billion yen)
Interview         Interview <t< th=""><th></th><th></th><th></th><th></th></t<>				
Image: second	rders received	182.7	190.0	200.0
perating profit to net sales (%)         6.2%         7.6%         8.0%           Irdinary profit         12.5         13.0         15.0           rdinary profit to net sales (%)         7.0%         6.8%         7.5%	let sales	179.2	190.0	200.0
Image: second	perating profit	11.1	14.5	16.0
Interface         Interface <thinterface< th="">         Interface         <thinterface< th="">         Interface         Interface</thinterface<></thinterface<>	perating profit to net sales (%)	6.2%	7.6%	8.0%
	rdinary profit	12.5	13.0	15.0
let income*1 8.9 10.0 11.0	rdinary profit to net sales (%)	7.0%	6.8%	7.5%
	let income <sup>*1</sup>	8.9	10.0	11.0

\*1 For the respective fiscal years ending June 30, 2016 and June 30, 2017, this refers to current net profits that revert to the shareholders of the parent company \*2 Revised values announced on November 11, 2015

### Q5 Please tell us about future efforts under the medium-term management plan.

#### A5 WE WILL FURTHER PURSUE OUR STRUCTURAL BUSINESS REFORM PROJECT.

In order to achieve the targets under the medium-term management plan devised in August 2014, we adopted basic policies of "reconstructing a business model to create value (reestablishment of a mechanism to increase added value with vacuum technologies at the core)," "reviewing unprofitable businesses," and "reducing break-even sales." We aim to continue to "establish a system to enable us to secure reliable and stable earnings." With regard to business segments, we plan to adhere to the plan's growth scenario, which sees growth being propelled by the semiconductor and electronic component manufacturing equipment segment while continuing to be supported by the FPD and PV production equipment, Industrial equipment, and Component segments, while further pursuing activities to increase product competitiveness and profitability through cooperation between the development, sales, and production sections under the structural business reform project.

#### Sales strategy project

- Strengthening of the Corporate Sales and Marketing Division
- Securing partnerships with companies that are global leaders in new technology and open new markets

#### **Development strategy project**

- Adding electronics components and MEMS that support the IoT to the eight important business areas
- Establishment of the Future Technology Research Laboratory, which will contribute to long-term growth

#### Cost management enhancement project

- Establishment of front loading and global expansion
- Ensuring the Group's production efficiency

**IMPROVING RESULTS.** Firstly, with regard to the sales strategy project, we will further

Please tell us about each project and important points for their

**EFFICIENCY THROUGH INTEGRATED** 

**GROUP MANAGEMENT, AND STEADILY** 

thorough implementation.

A6 WE ARE PURSUING MAXIMUM

()6

strengthen ULVAC's Corporate Sales and Marketing Division. At present, our customers' production activities are spreading around the world. In order to respond to these developments, we plan to align and optimize the Group's sales activities, led by ULVAC's Corporate Sales and Marketing Division, and promote a more effective approach to obtaining orders globally. Furthermore, in preparation for securing partnerships with companies that are global leaders in new technology, we would like to have a firm grasp of future technological trends, while building many connections, such as by continuously holding technical roadmap meetings.

With regard to the development strategy project, we have added electronics components and MEMS that support an advanced information-oriented society (IoT) to the ULVAC Group's eight important business areas, so that we are now promoting development in nine important business areas. Furthermore, we have created the Future Technology Research Laboratory to assist ULVAC 10 or 20 years in the future. For the past several years, we have valued development aimed at the current plan to receive orders; however, we are now proactively engaging in development from a medium-term perspective with dreams of contributing to social progress and the ULVAC Group's future growth.

With regard to the cost management enhancement project, we will expand globally, while further enhancing our implementation of front loading, which we have been engaged with up to this point. Furthermore, we will thoroughly pursue efficiency in the Group's production.

By promoting these projects, the ULVAC Group will chart a course towards efficient management which embodies the keyword of "one ULVAC" in order to achieve solid growth. Up to this point we have pursued the structural business reform project using the keyword of "vitalization." This has led us to promote global vitalization for our development, sales, and production sections, as well as increased product competitiveness and profitability etc. Looking forward, the ULVAC Group will seek to integrate these areas in order to achieve maximum efficiency, and promote integrated management in order to ensure increased growth

#### Shareholder returns

07 Please tell us about your thoughts concerning dividends.

#### A7 The dividend for the year ENDED JUNE 2015 WAS ¥10 PER SHARE.

Through the structural business reform that the ULVAC Group has come together to engage in up to this point, we have implemented a system that allows us to ensure secure and stable income, and fully redeemed the class A classified stock, etc. This led us to the decision that we had achieved our goal of being able to resume dividends for common stock and duly issued a dividend of ¥10 per share for the fiscal year ended June 30, 2015. With regard to the fiscal year ending June 30, 2016, looking forward we will secure the internal reserves necessary for investment in research and development and to strengthen our financial base, and in consideration of the future earnings forecasts and dividend payout ratio, etc., we anticipate that dividends will increase by ¥20 for a total dividend of ¥30.



#### ULVAC's mission and value creation

08 What are your thoughts concerning ULVAC's mission?

#### **A8** I BELIEVE ULVAC'S MISSION IS TO CONTRIBUTE TO SOCIETY BY **CONDUCTING RESEARCH AND DEVELOPMENT CONCERNING CUTTING-EDGE TECHNOLOGY.**

Companies are said to be a public instrument of society, and we are aware that we only exist because of society at large, so we work on the premise that we must be a company that is valuable to society. In addition. I think that it is our utmost duty to contribute to society through the ULVAC Group's greatest strength, which is cutting-edge technology, while fulfilling our responsibility to all of our stakeholders.

Since our establishment in 1952, at ULVAC, we have dauntlessly challenged ourselves to create new value that is demanded by the times, seeking out the infinite possibilities of vacuums, and refining technology that freely manipulates vacuums, based on our corporate philosophy of "contributing to manufacturing and science through vacuum technology." In addition, a diverse range of fields utilize the vacuum technology that we have developed, including semiconductors, electronic components, flat-panel TVs, solar cells, automobiles, pharmaceuticals, food, and science, and it is a fundamental technology that is indispensable for the advancement of many industrial fields and science.

In recent years, intricately connected social issues such as environmental problems have become prominent, and I think that the fields in which the ULVAC Group's products and technology can contribute are expanding exponentially.

In what specific fields do you hope to contribute to society in ()9 the future?

#### **A9** We hope to contribute to SOCIETY IN THE FIELDS OF ENERGY AND IOT.

Although we are facing many issues, the Group aims to make great contributions in two specific fields. One of these is the energy saving and power generation field, which will help to provide technological solutions to deepening social issues. There are concerns about insufficient power supply in the future due to the increasing global population, and we will continue to be a leader in the development of

technology to avoid the energy crisis that is being faced by society through four projects concerning power devices, high-brightness LEDs, high-efficiency solar cells, and automotive-related technology. The second field that we will contribute to is key technology for the growth and development of society. We are devoting ourselves to the development of technology which is necessary for four projects concerning display-related technology, non-volatile memory, hyperfine wiring, and high-density mounting, as we head towards a highly information-oriented society, which is represented by the acronym "IoT." We are also working on a ninth project, which concerns electronic components and MEMS. MEMS technology is extremely important for the creation of the communication devices and sensors etc. that will support the IoT age. The Group has advanced processing technology relating to this area, and we plan to place particular emphasis on it looking forward. The Group has determined that these two fields are important, and we will aggressively promote technological development for the realization of a rich and safe lifestyle for people all over the world. (Refer to p. 23)

#### Finally, please tell us about the type of group that ULVAC aspires to be.

#### A10 WE AIM TO BE A CORPORATE **GROUP THAT CREATES NEW** VALUE THAT IS DEMANDED BY THE TIMES AND IS VALUED BY **ALL KINDS OF BUSINESSES AND** SOCIETIES.

I feel that business management should value safety, guality, and profits, in that order. Profits cannot be achieved without safety and quality. If you merely chase profits and neglect safety and quality, it will lead to accidents down the line and cause inconvenience to the societies. Also, if you neglect quality, you will lose the trust of your customers. Once you make sure that you achieve safety and quality, only then will you be able to seek profits. I feel that this is prudent business management.

My aim for the Group is to create new value that is demanded by the times and to be valued by all kinds of businesses and societies by bringing together our manufacturing ability and the abilities of our personnel who support it, firmly based on a corporate culture that values safety and guality above all else. To that end, we will strengthen our relationships with all of our stakeholders including our customers, sustainably expand our businesses by building a stable business structure, and continually improve corporate value. We appreciate your continued support and invite you to join us in the bright future that ULVAC will create.

Based on our three strengths of "research and development," "global networking," and "customer support," we



### **Financial Highlights**

					Millions of yer
FOR THE YEAR DATA	2011.06	2012.06	2013.06	2014.06	2015.06
Orders received	235,932	152,221	166,778	169,808	182,732
Net sales	232,040	196,804	163,351	173,878	179,174
Operating income (loss)	1,850	(6,384)	6,115	11,996	11,132
Income (loss) before income taxes	(9,192)	(33,704)	(565)	15,137	12,654
Net income (loss)	(8,706)	(49,984)	(3,807)	11,538	8,874
Capital expenditures	17,827	12,719	6,761	6,217	6,731
Depreciation	10,717	9,096	7,967	7,421	7,630
R&D costs	8,255	7,088	4,989	5,213	5,562

YEAR-END DATA	2011.06	2012.06	2013.06	2014.06	2015.06
Total assets	313,616	249,651	243,289	230,791	242,348
Net assets/Shareholders' equity	92,023	41,187	59,436	72,238	84,928
Number of employees	7,878	6,981	6,579	5,971	5,904

Millions of yen

					(Yen)
PER SHARE DATA	2011.06	2012.06	2013.06	2014.06	2015.06
Net assets	1,787.51	751.00	806.38	1,040.23	1,398.66
Net income (loss)					
—Basic	(176.43)	(1,012.94)	(87.79)	223.18	172.73
—Diluted	_	_	_	165.62	148.48
Cash dividends	_	_	_	_	10.00

					(%)
OTHER INFORMATION	2011.06	2012.06	2013.06	2014.06	2015.06
Net income / Average total assets (ROA)	—	_	_	4.9	3.8
Net income / Average shareholders' equity (ROE)	_	_	_	18.8	12.1
Shareholders' equity ratio	28.1	14.8	22.7	29.2	32.8

#### Disclaimer regarding forward-looking statements

Forward-looking statements of the company in this report are based on information available at the time these documents were prepared. ULVAC's customers in the flat-panel display (FPD), solar cells, semiconductor, and electronic parts industries face the challenge of the rapid pace of technological advances and fierce competition.

Consequently, actual earnings may vary substantially from the projections included in this report due to a number of factors that could cause, directly or indirectly, performance to fluctuate. The factors that could cause results to differ materially from the statements herein include the world economy; fluctuations in the exchange rate; market conditions for flat-panel displays, semiconductors, and electric devices; and trends in capital investments.





13.06

14.06

15.06

Capital expenditures/Depreciation (Millions of yen)

11.06

12.06



#### R&D costs (Millions of yen)



#### Cash flows (Millions of yen)



#### Net sales by business segment (Millions of yen)

Industrial equipment Material Others

FPD·PV production equipment

250,000

#### **Analysis of Business Results**

#### Business results for the current fiscal year

In the consolidated fiscal year ended June 2015, the Japanese economy continued its gradual recovery with individual consumption showing steady improvement, and corporate earnings showing positive signs etc., while employment and the earnings environment continued to improve. In the United States, although capital investment was weak, economic recovery continued with increased individual consumption etc. In Europe, the economy continued to rally, although attention must be paid to the problems in Greece and trends in the unemployment rate and commodities prices. In China, the economy began to gently slow with a decline in increases in individual consumption and production etc.

The electronics market, in which the ULVAC Group operates, continues to be buoyed by smartphones, with an increase in shipment of small to medium-sized LCD panels, semiconductors, and other electronic components, which are used as smartphone components.

With regard to capital investment in LCD production equipment, a lull was observed in the first half of the fiscal year due to the completion of a round of investment by various companies and the market remained generally sluggish; however, signs of renewed investment in the second half of the fiscal year reinvigorated the market. In the automobile market, sales of eco-friendly cars remained strong, causing capital investment in automotive parts, including car electronics products, to remain steady.

As a result, orders received rose by 12.924 billion yen or 7.6% year on year to 182.732 billion yen and sales rose by 5.296 billion yen or 3.0% year on year to 179.174 billion yen for the consolidated fiscal year ended June 2015. With regard to consolidated profit and loss, operating income fell by 863 million yen or 7.2% year on year to 11.132 billion yen, ordinary income fell by 908 million yen or 6.8% year on year to 12.475 billion yen, and net income for the period fell by 2.664 billion yen or 23.1% year on year to 8.874 billion yen.



Semiconductor and electronic device production equipment

#### Vacuum Application Business 31,533 (18%) Vacuum Others **Equipment Business** 17,111 (10%) 147.641 (82%) Material Total FPD·PV production equipment 14.422 (8%) 179,174 59.699 (33%) Industrial equipmen 25,493 (14%) Semiconductor and electronic device production equipment Components 35,967 (20%) 26 482 (15%)

#### Vacuum Equipment Business

#### FPD production equipment and PV production equipment

Orders received increased for small to medium-sized LCD manufacturing equipment in addition to large LCD manufacturing equipment and organic EL manufacturing equipment in the second half of the fiscal year.

#### ■ Semiconductor and electronic device production equipment In relation to semiconductors, sputtering equipment and natural oxide film removal equipment for mobile DRAM and NAND flash memory, and in relation to electronic components, advanced device manufacturing equipment for mobile devices and LED manufacturing equipment, all contributed to orders received and sales exceeding those of the previous fiscal year.

#### Components

Markets steadied behind the FPD, semiconductor, electronic components, and automotive related industries, and orders received and sales both exceeded those of the previous fiscal year.

#### Industrial equipment

Sales exceeded those of the previous fiscal year with a particular emphasis on vacuum heat treatment furnaces for automotive parts manufacture etc.

#### Stock Information (As of June 30, 2015)

Total number of stocks authorized	··· Common stock	100,000,000	Ν
	Class A classified stock	1,500	_
	Class B classified stock	37,500	Ir
Total number of stocks issued	·· Common stock	49,355,938	F
	Class A classified stock	1,000	D
Total number of shareholders	- Common stock	13,542	Fi
	Class A classified stock	1	S
	tock was acquired and cancelle 's stock now comprises only co		F

#### Major Shareholders (Common Stock)

Shareholder's name	Number of shares (thousands)	Ratio of shareholding (%)
TAIYO FUND, L.P.	6,610	13.39
Nippon Life Insurance Company	3,242	6.57
Mizuho Bank, Ltd.	1,916	3.88
Sumitomo Mitsui Banking Corporation	1,864	3.78
State Street Bank and Trust Company 505019	1,803	3.65
Japan Trustee Services Bank, Ltd. (Trust account)	1,160	2.35
TAIYO HANEI FUND, L. P.	1,154	2.34
Goldman Sachs and Company Regular Account	1,026	2.08
The Master Trust Bank of Japan, Ltd. (Trust account)	939	1.90
Goldman Sachs International	926	1.88

Note: Stock ownership ratio is calculated by the number of treasury stocks (3,101 stocks)

#### **Vacuum Application Business**

#### Materials

Orders were received for sputtering targets for LCDs, mainly from major Japanese and Korean panel manufacturers etc., and both orders received and sales exceeded those of the previous fiscal year.

#### Others

The market for mask blanks steadied due to increased demand for smartphones and tablets, as well as in-vehicle semiconductors.



#### Net sales by region (Millions of yen)





#### Number of Shares Held (Common Stock) total: 49,355,938 shares



### **Consolidated financial statements**

**Consolidated Balance Sheets** 

	Fiscal year ended June 30, 2014 (June 30, 2014)	Fiscal year ended June 30, 2015 (June 30, 2015)
sets		
Current assets		
Cash on hand and in banks	57,669	62,684
Notes and accounts receivable, trade	46,341	56,684
Merchandise and finished goods	4,068	3,551
Work in process	21,392	18,685
Raw materials and supplies	8,892	9,897
Deferred tax assets	1,774	1,620
Other	6,006	5,264
Allowance for doubtful accounts	(360)	(482)
Total current assets	145,783	157,903
Fixed assets	I	1
Property, plant and equipment		
Buildings and structures	79,614	81,341
Accumulated depreciation	(41,103)	(43,718)
Buildings and structures, net	38,511	37,623
Machinery, equipment and vehicles	64,464	67,281
Accumulated depreciation	(48,774)	(51,787)
Machinery, equipment and vehicles, net	15,689	15,494
Tools, furniture and fixtures	13,779	13,684
Accumulated depreciation	(12,393)	(12,390)
Tools, furniture and fixtures, net	1,386	1,294
Land	8,476	8,198
Leased assets	1,270	1,490
Accumulated depreciation	(757)	(923)
Leased assets, net	514	567
Construction in progress	2,325	2,487
Total property, plant and equipment	66,901	65,662
Intangible fixed assets		1
Leased assets	181	166
Software	1,120	1,023
Other	3,709	3,436
Total intangible fixed assets	5,010	4,625
Investments and other assets	I	1
Investment securities	4,130	4,718
Guarantee deposits	1,936	1,877
Deferred tax assets	2,384	1,766
Other	5,549	6,896
Allowance for doubtful accounts	(901)	(1,100)
Total investments and other assets	13,097	14,156
Total fixed assets	85,008	84,444
al assets	230,791	242,348

	Fiscal year ended June 30, 2014	Fiscal year ended June 30, 2015
abilities	(June 30, 2014)	(June 30, 2015)
Current liabilities		
Notes and accounts payable, trade	28,700	33,816
Short-term borrowings		62,844
Lease liabilities	69,242	385
Accrued income taxes		
	1,473	1,392
Advances received Deferred tax liabilities	9,785	14,492
	51	52
Accrued bonuses for employees	1,043	1,931
Accrued bonuses for directors and corporate auditors	245	203
Accrued warranty costs	1,593	2,059
Provision for loss on contract	581	129
Other	9,097	9,976
Total current liabilities	122,148	127,277
Long-term liabilities		
Long-term debt	20,364	19,805
Lease liabilities	648	557
Deferred tax liabilities	1,850	1,590
Net defined benefit liability	11,759	6,715
Accrued pension and severance costs for directors and corporate auditors	720	394
Asset retirement obligations	340	333
Other	723	747
Total long-term liabilities	36,404	30,142
Total liabilities	158,552	157,420
<mark>et Assets</mark> Shareholders' equity		
Common stock	20,873	20,873
Capital surplus	37,100	16,435
Retained earnings	8,510	34,609
Treasury stock, at cost	(10)	(10)
Total shareholders' equity	66,474	71,908
Accumulated other comprehensive income		1
Unrealized gain (loss) on securities, net of taxes	372	718
Foreign currency translation adjustment	1,925	7,462
Remeasurements of defined benefit plans	(1,389)	(718)
Total accumulated other comprehensive income	908	7,462
Minority interests	4,856	5,559
Total net assets	72,238	84,928
Total liabilities and net assets	230,791	242,348

(Unit: Millions of yen)

#### Consolidated statement of income

		(Unit: Millions of
	Fiscal year ended June 30, 2014 (July 1, 2013–June 30, 2014)	Fiscal year ended June 30, 2015 (July 1, 2014–June 30, 2015)
Net sales	173,878	179,174
Cost of sales	131,231	135,710
Gross profit	42,646	43,464
Selling, general and administrative expenses		
Selling expenses	13,707	14,978
General and administrative expenses	16,944	17,353
Total selling, general and administrative expenses	30,651	32,331
Dperating income	11,996	11,132
Non-operating income		1
Interest income	216	181
Dividend income	267	310
Foreign exchange gains	765	743
Insurance and dividend income	242	360
Gain on sales of scraps	1,100	1.143
Share of profit of entities accounted for using equity method	-	128
Other	1.110	954
Total non-operating income	3,699	3,818
lon-operating expenses	3,000	5,510
Interest expenses	1,257	1.038
Commission for syndicate loan	198	365
Loss on valuation of inventories	-	363
Share of loss of entities accounted for using equity method	109	505
Other	747	710
Total non-operating expenses	2,311	2,475
Ordinary income	13,384	12,475
Extraordinary income	15,504	12,475
Gain on sale of fixed assets	1,068	326
Gain on sales of shares of subsidiaries and associates	838	28
Insurance income	535	20
Other	31	-
Total extraordinary income	2,471	354
Extraordinary losses	2,471	554
Loss on disposal of fixed assets	145	176
Loss on disaster	279	170
Business structure improvement expenses	133	-
Other		-
	161	- 170
Total extraordinary losses	718	176
ncome before income taxes and minority interests	15,137	12,654
Current income taxes	2,805	3,183
Deferred income taxes	3	13
otal income taxes	2,808	3,196
ncome before minority interests	12,329	9,458
Ainority interests in income	791	584
Net income	11,538	8,874

#### Consolidated Statement of Comprehensive Income

Consolidated Statement of Comprehensive Income		(Unit: Millions of ye
	Fiscal year ended June 30, 2014 (July 1, 2013–June 30, 2014)	Fiscal year ended June 30, 2015 (July 1, 2014–June 30, 2015)
Income before minority interests	12,329	9,458
Other comprehensive income		
Unrealized gain (loss) on securities, net of taxes	40	346
Foreign currency translation adjustment	2,086	5,999
Remeasurements of defined benefit plans, net of tax	-	672
Share of other comprehensive income of entities accounted for using equity method	21	40
Total other comprehensive income	2,147	7,056
Comprehensive income	14,475	16,514
Comprehensive income attributable to:		
Owners of parent	13,515	15,427
Minority interests	960	1,087

#### Consolidated statement of cash flows

	Fiscal year ended June 30, 2014 (July 1, 2013–June 30, 2014)	Fiscal year ended June 30, 2015 (July 1, 2014–June 30, 2015)
Cash flows from operating activities		
Income before income taxes and minority interests	15,137	12,654
Depreciation	7,421	7,630
Business structure improvement expenses	133	-
Increase (decrease) in allowance for doubtful accounts	626	271
Increase (decrease) in provision for bonuses	23	857
Increase (decrease) in net defined benefit liability	(661)	(176)
Increase (decrease) in provision for directors' retirement benefits	83	(301)
Increase (decrease) in provision for product warranties	(209)	348
Increase (decrease) in provision for loss on order received	(2,636)	(458)
Interest and dividend income	(483)	(491)
Interest expenses	1,257	1,038
Subsidy income	(219)	(53)
Share of (profit) loss of entities accounted for using equity method	109	(128)
Decrease (increase) in notes and accounts receivable - trade	13,178	(7,626)
Decrease (increase) in inventories	8,986	4,354
Increase (decrease) in notes and accounts payable - trade	292	3,740
Increase (decrease) in advances received	(4,345)	3,344
Increase (decrease) in advances received	(100)	297
Other	(4,068)	1,103
Sub total	34,522	26,403
Interest and dividend income received	554	539
Interest and dividend income received	(1,254)	(1,043)
Income taxes paid	(1,609)	(3,907)
Net cash provided by (used in) operating activities	32,213	21,992
Cash flows from investing activities	52,215	21,352
Payments into time deposits	(898)	(624)
Proceeds from withdrawal of time deposits	658	379
Purchase of property, plant and equipment and intangible assets	(5,539)	(5,846)
Proceeds from sales of property, plant and equipment and equipment and intangible assets	1,989	1,070
Proceeds from sales of shares of subsidiaries resulting in change in scope of consolidation	867	490
Subsidy income	360	207
Other	(461)	269
Net cash provided by (used in) investing activities	(3,023)	(4,055)
Cash flows from financing activities	(0)020)	(1,000)
Net increase (decrease) in short-term loans pavable	(9,559)	(3,972)
Proceeds from long-term loans payable	7,769	7,525
Repayments of long-term loans payable	(14,137)	(10,893)
Repayments of lease obligations	(668)	(387)
Cash dividends paid	(0)	(1,050)
Purchase of treasury shares	-	(5,811)
Cash dividends paid to minority shareholders	(266)	(287)
Other	(20)	(20)
Net cash provided by (used in) financing activities	(16,881)	(14,895)
Effect of exchange rate change on cash and cash equivalents	500	1,616
Net increase (decrease) in cash and cash equivalents	12,808	4,658
Cash and cash equivalents at beginning of period	44,204	57,012
Cash and cash equivalents at end of period	57,012	61,670

(Unit: Millions of yen)

**Technology Topics: Special Feature** From smartphones to the IoT



### The Internet of Things ΙοΤ



# ΙοΤ

**Deep relationship with** ULVAC's vacuum technology. The IoT (internet of things) is expected to be a step towards solving social problems and generate innovation.

Information and communication through computers and smartphones will advance to everything and anything with the capability to be connected to the internet and/or communicate to each other, independently having sensor and communication capability to allow automatic sensing, automatic control, and remote measurements. Things, people, places, and the environment all connected to each will change the everyday life and our business activity.



Food and farmin

**ULVAC Group is the global** leader supporting the technology required for smartphones today and will contribute in vacuum technology for the spreading IoT world.

Smartphones has become more advanced with the increasing demand.

Vacuum technology is essential for such state-of-the-art technology advancements and for ULVAC, as the world's only global comprehensive vacuum equipment manufacturer, it is a challenge to create new value.

Smartphones is only the beginning and the quickly expanding IoT society will connect many more Things to the internet. More information will direct to increase cloud servers demand, higher performance, and energy saving technologies. Each individual Things connected will have independent sensors, communication mechanism, and batteries.

ULVAC' equipments will continue to contribute in production and advancements of key devices essential to the IoT society such as non-volatile memory, MEMS sensor, communication modules, thin film battery and many more.



The IoT is expected to help many challenges facing within the Health, medical, transportation, agriculture, and many other industries and also generate innovation. To realize such society, technology advancement in the field of smaller and low power sensor, diversification of network, and the cloud is essential.

#### **Technology Topics:**

Special Feature

From smartphones to the IoT

### Behind the scene: Evolution of *smartphones* with ULVAC's vacuum technology

Smartphones has become more advanced with the increasing demand. Vacuum technology is essential for such state-of-the-art technology advancements and for ULVAC, as the world's only global comprehensive vacuum equipment manufacturer, it is a challenge to create new value. What is ULVAC's vacuum technology contribution to the state-of-the-art smartphone advancements?

**High-definition** 



#### High-definition displays

Liquid crystal, organic EL, touch panel, and flexible displays

LTPS (low temperature polysilicon), which is utilized in high quality liquid crystal displays and organic EL displays, is used for smartphone displays. It is essential for higher definition images and smooth video playback. In addition, touch panel displays has become the interface as much of use in everyday life.

Panel manufacturers require state-of-the-art vacuum equipments to produce high definition display which ULVAC role is to provide such deposition equipments and target materials used during the coating process.



Semiconductor integrated circuits High-density packaging, flash memory, mobile DRAM, and low power consumption CPU



Many semiconductor integrated circuits is used within the smartphone such as CPU, acting as the controlling brain, flash memory to store important data and photo, DRAM, and etc. High level technology is required to realize small space, high integration, and power saving.

### ULVAC contributes to the advancement of technology by supplying vacuum equipments and target materials to semiconductor production lines.





Sputtering equipment ENTRON Series

Sputtering equipmen



Natural oxide film removal equipment RISE Series

High-speed communication modules

SAW devices and high-frequency devices
Smartphones have many wireless communication capabilities such as
phone communication, internet connection, etc. To realize each wireless
function high-frequency technology is essential. High frequency devices are

sometimes installed individually, while some types are an integrated

module. Electromagnetic shielding technology is utilized to minimize

electromagnetic interference of each devices caused by the integration.

ULVAC contributes to the advancement of technology such as higher performance devices, high density modules, by supplying vacuum deposition equipments to the device manufacturing line and electromagnetic shielding process.



electromagnetic shielding SDH Series Etching equipmen

ent for



#### Sensors

Image sensors and gyro sensors etc.



Sensors within smartphones act as a key device and will be ever more important for the IoT society. Already the number of quantity of sensors has increased with variety of functions. Image sensors for cameras, gyro sensors to detect motion, are just few examples.

ULVAC contributes to the advancement of technology such as smaller size and high performance sensor production by supplying vacuum deposition equipments, dry etching equipments, and target materials.







Sputtering equipment SME Series

Etching equipmen NE Series

Sputtering Target materials

Batteries Thin film lithium secondary battery

Thin, flexible and safe with no leakage, these batteries also have a long life and are already used in RFID tags and smart cards etc. In the future, they are expected to be adopted for wearable technology and smartphones.

ULVAC contributes through film deposition equipment for mass production and target materials etc.





Evaporation equipment
EIH Series



# ULVAC Group's Strengths

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# Research and Development

Sustainably creating value from a medium to long-term perspective

The ULVAC Group provides products and materials around a core of vacuum technology, which is indispensible in a range of sectors. In the future, we will continue to contribute to the advancement of society by seeking out revolutionary and advanced technologies to respond to actual and potential needs and producing products and technologies with high added value around a core of vacuum technology.



## Product creation at the source of responding to market needs and profits

ULVAC contributes to the shaping of a safe and prosperous society by investigating vacuum technology and creating new value that will be needed in the future.

Important areas	<ul> <li>Key technologies for growing and developing fields</li> <li>Technological solutions to deepening social issues</li> </ul>	
	Next-generation displays (High-definition displays and flexible displays)	
Sophisticated information field	Next-generation non-volatile memory (high capacity and low power consumption memory) and hyperfine wiring	
	Electronic components, MEMS (devices and sensors to support the IoT), and high-density mounting	
Energy-saving and power generation field	High-efficiency solar cells, high-brightness LEDs, power devices, and next-generation automobiles	

#### Nine important areas

#### Working towards a prosperous and safe lifestyle

In order to leverage ULVAC's strengths, we have designated nine areas as "important areas" and we are dedicating ourselves to development in these areas. Furthermore, we are conducting development and enhancement in each area through the cooperation of the marketing manager (CPM), design and cost reduction manager (CDM) and the technology manager (CTM).



### **Development institutions**

Planting the seeds of long-term growth by establishing a new Future Technology Research Laboratory

We are establishing a global development structure that includes the overseas arms of the group in addition to the domestic arm.

We are differentiating our technology by speeding up development through unification, as well as innovative technology, and technological fusion at each company.

Furthermore, in addition to development and operation in our designated important areas to conduct product development to ensure short to medium-term profits, we have established and commenced operation of the Future Technology Development Laboratory in order to sow the seeds for the long term future, in 10 or 20 years.



#### ULVAC Group's Global Intellectual Property

### Strengthening global intellectual property rights, including those of Group Companies

"Protecting intellectual property rights concerning Group Companies' products" and "respecting third-parties' intellectual property rights" are the ULVAC Group's basic intellectual property strategy. We are applying for patents, particularly in countries where we have many customers. At the end of the fiscal 2014, we held 2,039 overseas patents, which is the most we have ever held. In particular, patents in the Asian region such as South Korea, China, and Taiwan now account for approximately 65% of all patents held, which is a large increase.

In accordance with market trends, the number of product groups that have previously been developed and manufactured in Japan, but for which the technology has now been transferred to overseas Group Companies is also increasing. In the Asian region, such as South Korea, China, and Taiwan, we have been promoting the enhancement of our research and development structure, such as by engaging in the development of equipment and processes appropriate to each market and the needs of our customers. In addition to our intellectual property rules, which also apply to Group Companies, we have also been preparing measures to avoid infringing the intellectual property rights of third-parties.

In the future we will pursue development of new technologies and new products as well as efficient patent applications based on our sales plan and marketing information. We will also conduct efficient and high-quality overseas applications to enhance our global intellectual property rights, while giving consideration to the relationship with our business plan.



#### Patents held by area (in the fiscal 2014)

### **Global Network**

#### Solution networks that support global industrial development

We are building sales and service networks that are optimized for each region, not only in Japan, but throughout the Group's 50 companies with a focus on North America and Asia. Vacuum technology is one of the key technologies for many other cutting edge technologies, and will be increasingly required for a wide range of industries and growth fields in the future.

As the world's largest comprehensive vacuum products manufacturer, we conduct everything from research and development, through to manufacture, sales, and customer support. Looking forward, we will continue to support the advancement of the world's industries through vacuum technology.

#### **ULVAC Group**

ULVAC, Inc.

#### **ULVAC Group Companies in Japan**

ULVAC TECHNO, Ltd. ULVAC KYUSHU CORPORATION ULVAC TOHOKU, Inc. ULVAC KIKO, Inc. ULVAC EQUIPMENT SALES, Inc. ULVAC CRYOGENICS INCORPORATED ULVAC-PHI, Inc. TIGORD CORPORATION ULVAC COATING CORPORATION NISSIN SEIGYO Co., I TD ULVAC Human Relations, Ltd. SHINKU CERAMICS CO., LTD. FINE SURFACE TECHNOLOGY CO., LTD. Reliance Electric Limited SHOWA SHINKU CO., LTD.

**Overseas ULVAC Group Companies** North America ULVAC Technologies, Inc. Physical Electronics USA, Inc. Europe ULVAC GmbH • China ULVAC (CHINA) HOLDING CO., LTD. ULVAC (NINGBO) CO., Ltd. ULVAC (SUZHOU) CO. LTD. ULVAC Orient (Chengdu) Co., Ltd. ULVAC Automation Technology (Shanghai) Corporation ULVAC Tianma Electric (Jingjiang) Co., Ltd. ULVAC Vacuum Furnace (Shenyang) Co., Ltd. ULVAC (Shanghai) Trading Co., Ltd. ULVAC Materials (Suzhou) Co., Ltd ULVAC Opto-electronics Thin film Technology (Shenzhen) Co., Ltd. ULVAC CRYOGENICS (NINGBO) INCORPORATED ULVAC NONFERROUS METALS (NINGBO) CO., LTD. ULVAC Research Center SUZHOU Co., Ltd. Luoyang Xinyou Magnesium CO., LTD Hong Kong ULVAC Co., Ltd. VACUUM EQUIPMENT (SHANGHAI) CO., LTD.



#### • Taiwan ULVAC TAIWAN INC. ULTRA CLEAN PRECISION TECHNOLOGIES CORP. ULCOAT TAIWAN, Inc. ULVAC AUTOMATION TAIWAN Inc. UI VAC SOFTWARE CREATIVE TECHNOLOGY.CO. J TD ULVAC Materials Taiwan.Inc.

South Korea UI VAC KORFA I td Ulvac Korea Precision,Ltd. Pure Surface Technology,Ltd. ULVAC CRYOGENICS KOREA INCORPORATED ULVAC Materials Korea.Ltd UF TECH,Ltd.

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





## **Customer Support**

#### ULVAC CS Solutions focuses all of the Group's knowledge

We provide global customer support to keep our customers satisfied after purchase of equipment, from installation of equipment to operation, field support, evaluation, analysis, provision of materials and parts, and maintenance etc. of vacuum pumps etc. In the future, in order to respond appropriately to the demands of diversification and sophistication, we will pursue value-adding service focusing all of our knowledge, such as our unique technology, service, and know-how, in order to support our customers' production activities in a manner that meets their needs. Furthermore, by using information about our customers' needs as feedback for development of new equipment, we are able to produce even more sophisticated vacuum technology and service.

#### **Equipment maintenance service**

service.

#### • Global CIP (continuous improvement program)

This service is for the purpose of providing our overseas customers, in addition to our domestic customers, with effective usage techniques, and improvements in yield rate and productivity over many generations for the equipment they are already using.

#### • Factory outsourcing (FOS)

We conduct support for the operation and maintenance of equipment and facilities, as well as the ordering of parts, selection of equipment, and process development, by contract, dispatch or personnel transfer.

#### Rejuvenation, precision cleaning, and resource recovery

We aim for overall cost reductions through extension of component life and the cleaning cycle, and recovery of valuable materials etc. Based on our extensive knowledge of vacuum equipment as a whole, we propose the optimal surface treatment and cleaning for your needs.

#### **Component maintenance**

Pump maintenance

We maintain components such as vacuum pumps.

#### JCSS vacuum gauge calibration service

ULVAC is an MRA/JCSS\* accredited calibration laboratory in the pressure (vacuum gauges) category.

\*International MRA (mutual recognition agreement)

#### **Components and consumables**

We achieve high-quality, swift, and reliable delivery through in-house manufacture of components.

### Analysis service

Second-hand sales and purchase to production equipment.

### **Training service**

We conduct a training service for ULVAC products (equipment, vacuum pumps, and components).

By valuing close communication with our customers, we are able to achieve rapid

\*JCSS (Japan Calibration Service System): Calibration laboratory accreditation system under the Measurement Act

We conduct an analysis service using the ULVAC Group's analysis and evaluation equipment.

We sell, purchase, refurbish, relocate, import and export etc. second hand products, ranging from components

### **Quality assurance and product safety**

From this fiscal year, we will roll out initiatives to contribute to customer expectations of high-guality and safe "ULVAC guality" by adding front loading activities to the ULVAC Group's quality policy and implementing these activities at each company.

#### ULVAC Group's quality policy

"Customer confidence in quality of ULVAC production" The ULVAC group is committed to provide the highest quality products and services to respond to the global needs of our customer and become their partner of choice.

#### **Action Policies**

- We comply with all rules and procedures.
- We do not deliver any nonconforming products to the next process.
- We observe delivery times leading to the next process.
- We commit to the production budget.

#### Front loading and global expansion

In order to enhance front loading, we are creating links between our sales department, technology department, design department and manufacturing department and their technologies and skills, as well as sharing our experience and know-how and related information and data. We are also putting effort into activities to reflect each of our successes in our upstream design processes. Looking forward, we will deliver "ULVAC quality" throughout the world in order to respond to globalization, implementing education and upskilling, with direct control over our overseas quality assurance members.

#### **Global certification status**

The ULVAC Group's products maintain "ULVAC quality" by strictly managing and evaluating products for conformity with the ULVAC trademark usage policy.

QCD: Acronym of Quality, Cost and Delivery, three fundamental conditions for manufacturing

In fiscal 2014, we merged the ISO 9001 certification of 18 companies in the ULVAC Group, in order to provide high-quality products, with the aim of achieving even greater improvement in quality from all companies in the ULVAC Group.

In fiscal 2015, we will merge the certification of another 19 companies, in order to deliver "ULVAC quality" that meets the demands of globalization throughout the world.

#### **Product safety**

Businesses have seen the necessity of personnel training for the development of knowledge concerning machine safety with the purpose of preventing workplace accidents caused by machinery. At ULVAC, we have been systematically studying safe technology based on the international standards, and since the fiscal 2014, we have been implementing machinery safety education as a measure to entrench machine safety consciousness in design and at manufacturing sites. This fiscal year, we plan to apply this even more broadly and roll it out globally.



Front loading using 3D printed models and machinery safety education

#### Quality Assurance System Concept in Relation to Development and Design Flow (for an equipment production process)



Procurement (supply chain management)

At the ULVAC Group, we maintain and promote proper, just, and fair business relationships, working to build secure relationships of mutual trust with our suppliers. Furthermore, we are working to enhance product competitiveness through thorough cost reduction activities in conjunction with each division.

### **Enhanced product competitiveness** through thorough cost reduction activities

- We are promoting thorough cost reduction activities with all of our suppliers.
- 1 We promote cost reductions through forecasting and centralized purchasing.
- We make effective cost reduction proposals (value engineering = VE proposals) through design review.

We positively accept suggestions from our suppliers concerning VE proposals.

- 3 We make proposals with regard to standardization and replacement of purchased goods based on information from our suppliers.
- We promote balanced global procurement.
- 5 We conduct activities that result in cost reduction, including allowing those who make orders, technicians and designers to actually visit and observe suppliers, and engage in exchange of opinions.
- We are promoting increased productivity through the continuation of cost table and cost benchmark education and plans to implement instructor development.
- We are improving buyer skills through the continuation of cost price calculation ability education.
- 2 We are seeking appropriate pricing in conjunction with our suppliers.

#### Procurement risk reduction activities

We are undertaking activities to minimize supply risk for parts that are provided for important products and services in the event of a natural disaster or accident. We are working towards reducing procurement risk by working with our suppliers and sharing information.

Determination of applicable products and services	2013	2014	2015	2016	
Step 1 Identifying the relevant product or component					/
Step 2 Supplier interview					7/
Evaluation and improvement of supplier's system					][

We have implemented the cycle of the investigations in step 1 and step 2 followed by evaluation and improvement for each of UIVAC's products.

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#### **Supplier Expectations**

At the ULVAC Group, the ULVAC Group Basic Procurement Policy has governed legal compliance, fair and free competition, and maintaining healthy and friendly relations with our suppliers up to this point. Looking forward, we humbly request that the following 9 items be included in response to the conflict minerals issue, for the purpose of building further partnerships with our suppliers and fulfilling our social responsibility including in our supply chain.

- Laws and Regulations, and Social Norms\*
- Fair Transactions and Corporate Ethics
- Respect of Human Rights and Occupational Safety and Health
- Safety and Quality of Products and Services
- Information Security
- Environmental Preservation
- Realization of Appropriate Prices and Delivery Times
- Improvement of Technical Strengths
- Sound and Stable Corporate Management
- \* For the conflict minerals, refer to the above "Laws and Regulations, and Social Norms."



Operations briefing for suppliers (held every year

### **HR Management**

We are concentrating on increasing the abilities of each individual, while vitalizing organizations in order to build a value creation business model. Furthermore, we aim to invest in organizations and personnel that enable the ULVAC Group as a whole to contribute to society from a global perspective.

#### Seeking an Organization that Ensures Rewarding Job Experiences

#### Invigorate the Individuals and Organization of ULVAC

We understand that a system whereby employees who make great efforts are rewarded properly is the basis for vitalization of both people and organizations. We are proceeding with continuous review of each of our rules and systems using the keyword of "reasonableness." At the same time, we are aggressively conducting transfer of authority to create an environment where each employee can fulfill their responsibilities with passion and ambition as a full participant, with the desire to make ULVAC the best it can be and what it should be.

With regard to management by objectives and evaluation systems, we are putting energy into management and evaluation using clear benchmarks, while conducting systems management that more highly values boldly attempting to solve difficult issues and tackling tasks as a team, rather than merely focusing on results. We would also like to continue to value the flexible thinking and the open and dynamic corporate culture that has been essential as a development company.

Furthermore, we are devoting ourselves to increasing opportunities for education. We provide a range of programs, encourage personal growth, and actively promote targeted education in order for all employees to voluntarily engage in skills development.

We recognize that promotion of next-generation training and a rotation system are also essential to the invigoration of organizations. We are engaging in flexible organizational operation and conducting personnel exchange in consideration of the diversity of staff who shares different viewpoints and cultures, including both domestic and overseas Group Companies, while being conscious of achieving a balance between specialists and generalists.

## Aiming for cooperation that extends beyond borders

#### — Level education system

At the ULVAC Group, we conduct group training to mark milestones such as beginning employment, beginning the second year of employment, obtaining internal qualifications, and appointment to managerial positions. Until now, the purpose of this has been to impress on employees the attitude that is necessary at each level of employment, but from the fiscal 2014, we have conducted training at all levels around the theme of cooperation. Although "cooperation" can be said in a single breath, it can take a number of forms, including internal cooperation between superiors and subordinates or within a team etc., through to wider cooperation with external parties such as customers and suppliers. Students learned about the importance of cooperation as it relates to their level from multiple perspectives, such as through team discussions, and case studies based on actual cases.

At the ULVAC Group, we are using training to support our goal of further deepening cooperation that extends beyond the borders of an individual's division or company.



#### **Basic Policy for Human Resource Development** (Revised in fiscal 2012)

- 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

## For inheritance and sharing of technology

#### — Technician education

We are implementing "Engineer education" with the aim of handing down the ULVAC Group's technology to the next generation. Since fiscal 2014, we have been conducting "technician education," which takes our engineer education one step further. At ULVAC, we handle a variety of technologies and products, so the main component of technician education has been OJT at each laboratory and division. By creating an infrastructure through the integration of OJT etc., we have been able to systematically conduct education to learn the knowledge and skills necessary for each role. The form that this education takes varies according to the purpose, but it can include lectures, workshops, and observations etc. In fiscal 2015, we will devote ourselves to take root for instructor development and technician education.

## Aiming to achieve a work-life balance

#### — Creating workplaces that are conducive to work

At ULVAC, we aim for employees to have both meaningful work and a fulfilling lifestyle.

- We grant annual paid leave from the date joining ULVAC
- We conduct spot leave promotion activities
- We are continuing our voluntary summer leave system
- We appoint work managers at each workplace, and closely manage overtime worked
- We have implemented optional staggered work hours and flex time policies, which have shown positive results.

Furthermore, with regard to promoting diversity, in recent years, female employees have had a particularly high rate of taking parental leave and returning to their position. Although we have few female employees, in the fiscal 2014, 2 of them took parental leave and 6 returned to work. This is a 100% rate of return.

Fiscal year	Commencement of parental leave	Return to work (conclusion of parental leave)
2014	2	6
2013	7	2
2012	1	1

#### Notable support systems

- Parental leave (may be extended up to a year and a half)
- System of shorter work hours for childcare
- Leave to nurse sick or injured child
- Family care leave

#### After conclusion of maternity and parental leave

Internal Auditing Office, Internal Control Audit Section

#### Ayako Yasuki

### Enabling both a career and parenting through internal cooperation

I returned to work after taking a total of 1 year and 4 months of maternity leave and parental leave. Before returning to work, I had many doubts about whether I would be able to pursue my career and care for my child at the same time, but since I first returned to work many managers and staff told me "your child comes first," which was very encouraging. Also, by notifying which days I would be available for overtime and work-related travel in advance, we have been able to tailor my work schedule to my needs. Therefore, although there are constraints on my time, I have been able to work in the same role as before taking leave and I have experienced a fulfilling lifestyle.

### HR data



### Gender ratio in employees [15.06]



### Gender ratio in management positions [15.06]



#### The number and percentage of disabled employees



### Supporting the Manufacturing of ULVAC by Promoting Employees' Health

With the vision of "Vitalizing the Individuals and Organization of ULVAC," the Health Promotion Office takes the initiative in promoting employees' health so that they can work to achieve the highest possible productivity, thereby supporting the manufacturing operations of ULVAC.

# Supporting the vitalization of individuals and organizations from a health perspective

At the ULVAC Health Promotion Office, we work towards the "vitalization of individuals and organizations," which is our vision, by managing the health of employees. We conduct periodic internal surveys of health in "physical," "mental," and "social" areas for use as performance indicators for our activities. Of those surveys, feedback is given to the workplace in relation to the "social" items in particular, and we provide assistance to create an action plan for workplace vitalization. This initiative only began in the fiscal 2014, and it has been implemented in several departments as a model demonstration. We have received positive feedback from its implementation in the Components

Division as indicated by the following interview. In the fiscal 2015, we contributed to the vitalization of individuals and organizations by rolling out this initiative to even more workplaces.



ecting health feedback



\* Results of the survey conducted after receiving health feedback (January 2015)

#### Vision and Targets of the Health Promotion Office



#### **Mental healthcare**

Since 2013, we have offered self-care and line-care education based on the internal regulations called "Detailed Regulations for Ensuring Mental Health." More than half of our employees have attended classes up to this point. Furthermore, we have maintained a low level of people missing work due to mental disorders due to the success of the return to work initiatives that we are continuing to implement.

#### Mental Health Education System

	Self-Care Education	Line-Care Education
Objective	Enhance the communication between boss and subordinate	Secure safety and health Enhance motivation
Lecturer	Occupational health nurses	Occupation physicians
Target	All employees	All middle manager employees
Subjects	Listening Recognition Assertion	Fulfillment of the duty of company's obligation of health and safety Critical points of case management The basics of motivation management

#### Interview

Executive Officer and General Manager of the Components Division

#### Kiyokazu Yanagisawa

### Why did you decide to implement health feedback?

I was interested in looking at the division from a different perspective to simply looking at business progress or results. I expected that leveraging the strengths of individuals and organizations would lead to invigoration of organizations. At first I was worried that because this is not directly linked to business, managers would not actively participate; however, at this point, we are leaving the implementation up to the head of each division. Implementation has been more successful in some divisions than in others, so we have rolled out successful implementations to other divisions. With each repetition, we have been able to determine items for action. Through the voluntary initiatives of young employees, such as holding a division-wide end of year meeting for the first time in 10 years, I feel that we have enhanced our sense of unity as an organization. Looking forward, I hope this will lead to initiatives to enhance links with other departments and divisions.

## **Occupational Safety and Health**

Among the ULVAC Group, "Safety First" is positioned as the fundamental principle of business operations, and as such we endeavor to secure safety in products and services for our customers and ensure a lively working environment where employees can work in good physical and mental health. These will be accomplished by operating our Occupational Safety and Health Management System (OSHMS) with a focus on risk assessment.

#### **ULVAC's Safety and Health Initiatives**

#### To ensure the safety and health of our customers and employees

To ensure the safety and good health of its customers and employees, the ULVAC Group regularly holds meetings of the Global Safety Committee, which are joined by representatives from the Group companies to determine the Group policies on occupational safety and health and ensure that they are evenly implemented, thereby promoting unified safety and health efforts of ULVAC on a Group-wide basis. Each Group company operates the OSHMS system, which involves management review by the president or the director in charge of safety and health activities and risk assessment by each employee to ensure company-wide involvement in safety and health management efforts from the top management to onsite workers. As a result of these efforts, the number of occupational accidents at the ULVAC Group has been declining year by year.

#### ULVAC Group Safety Management System



#### Frequency ratio of occupational accidents throughout the ULVAC Group

🗖 Group as a whole 🔎 Japan 🔎 China 🔎 South Korea 📄 Taiwan 🔍 North America 💻 Southeast Asia



This graph shows the rate of work-related accidents in the entire ULVAC Group for each fiscal year, indicating the value for the fiscal 2010 as 1.00. In the fiscal 2014, the rate of work-related accidents increased slightly over the previous fiscal year, but compared to the fiscal 2010, the rate of accidents had declined by 52%, indicating a declining trend.





Forklift safety skills workshop (ULVAC Technologies, Inc. ) First aid workshop (ULVAC CRYOGENICS Inc.)

#### Calling out the safety slogan each morning at the morning assembly (Korean region)



The Korean Group is aware that it "cannot survive competition unless safety is assured" and that "safe operation leads to business competitiveness" and we believe that it is necessary to ensure that a safety culture is systematized and takes hold. In order for a safety culture to take hold, it is important for officers and employees to always consider safety, and to take responsibility as a company for creating a safety-first environment so that safety measures can be put into practice. At ULVAC KOREA, Ltd., we have been calling out the safety slogan of "safety is a practice, safety is a habit, safety is a lifestyle" every morning at morning assembly since July 2015, in order to improve the safety consciousness of officers and employees.







Sport competition for invigoration of organizations (ULVAC KOREA, Ltd.)

#### Building a safety management system that is appropriate to the type of business conducted at each company (Chinese region)

ULVAC (CHINA) HOLDING CO., LTD., which is responsible for the Chinese region, is promoting safety activities based on the principle that company-wide accident prevention is achieved through increasing the safety awareness of each employee. Before commencing a task, employees undergo safety education, with the effectiveness of this being confirmed through patrols by day to day work-site managers, ensuring improvement in areas that need improving, and building a safety management system that is appropriate to the type of business conducted at each company through the PDCA cycle. Furthermore, we have established a safety award system to celebrate employees who have greatly contributed to safety activities as role-models, as a measure to encourage increased safety awareness. Through activities such as these, we are working to reduce work-related accidents.



Fire extinguishing drill (ULVAC (NINGBO) Co., Ltd.)



New employee safety training (ULVAC (NINGBO) Co., Ltd.)

### **Environment**

The ULVAC Group works hard to develop and manufacture products that allow customers to make maximum contributions to the environment. Furthermore, the whole Group is promoting activities with the purpose of minimizing the environmental impact caused by business activities

#### **ULVAC Group's environmental** management

The ULVAC Group provides products that allow customers to feel that they have made environmental contributions based on our environmental policy of "Develop products that contribute to energy saving, resource saving and environmental conservation." Furthermore, we are ensuring thorough management and saving of energy consumption and waste emissions and conducting activities with the purpose of minimizing environmental impact.

The ULVAC Group possesses a global production system that is focused on the Asian region, yet has expanded broadly to regions such as Europe and America. It is essential that we share information within the group and swiftly carry out instruction from top management etc. We are working to unify the ISO14001 certification currently held by each company, and strengthen group governance.

The ULVAC Group will continuously reduce the environmental impact through its products.

#### **Environmental Philosophy**

ULVAC Group takes on one of major issues for everyone around the world, which is to conserve and protect the global environment. We will consider environmental conservation in all aspects of our business activities and will contribute to develop a better place to live and an enriched society.

#### **Environmental Policy**

Develop products with a goal to save energy, reduce the use of natural resources and contribute to the conservation of our environment.

- ULVAC Group products/Final products
- 2 ULVAC Group manufacturing process

#### Providing products that contribute to energy conservation

#### The DRYMONI freeze-drying process monitoring system

#### The DRYMONI system visualizes the freeze-drying process, which contributes to improvements in productivity and quality

Freeze-drying is a drying method wherein an aqueous solution or food is frozen and the pressure is lowered to below the saturated vapor pressure at the freezing point, so the moisture content is sublimated. Until now, it was usual for a temperature sensor to be inserted in the substance to be dried in order to measure the temperature, and for a person to use his or her judgment to determine when the drying process was complete. However, when using large equipment or large containers, the temperature reading is not necessarily representative of the temperature throughout the container, so there may be portions that are not completely dry, or alternatively the drying time may be excessive in order to avoid this issue, which is not only a waste of time, but also of energy. However, we have developed the DRYMONI system, which is able to measure the amount of moisture in the drying vat by monitoring the amount of moisture being sublimated during drying, and creating a visualization of the drying process. Because this equipment is able to measure the amount of moisture sublimation during the freeze-drying process without measuring the temperature, this has quickly become standard PAT (process analytical

technology) for vacuum freeze-drying equipment used in the pharmaceutical industry, where quality control is strict.

Using this system to monitor the freeze-drying process and optimize the freeze-drying program contributes to improvements in productivity and quality, such as by preventing poor quality due to incomplete drying, and reducing wasted time through having precise knowledge of when drying is complete.

Furthermore, in response to customers who currently use equipment that

has been fitted with DRYMONI, and who would like to use the system with their older equipment and equipment produced by other companies, we have also commenced sales of a standalone version.





Industrial Equipment Division.

Design Department Development personnel

#### **ULVAC Group's environmental** activities in the fiscal 2014

The ULVAC Group has engaged in energy conservation measures with the aim of "reducing energy costs by 10% in 5 years compared to the fiscal 2013." We increased sales in this fiscal year; however, our energy usage (electricity) dropped by approximately 0.3% compared to the previous fiscal year. In Japan, our energy usage dropped by approximately 2.3% on average. However, due to the shift of production to overseas sites, overseas power consumption has increased by approximately 3%. Looking forward, it is likely that overseas energy usage will continue to increase as production optimization and overseas expansion continue. Furthermore, looking at figures over 5 years, although CO<sub>2</sub> output has increased, this is mainly due to the increase in the number of companies reflected by the total figure (overseas group companies).

In addition, total waste has increased by 15% over the previous fiscal year. This increase is attributable to increases in production volume etc. 3.7% of the waste ended up as landfill in spite of the ULVAC Group's standard being less than 3%. We are currently pursuing resource recovery as an initiative of all companies, and we are able to see the effects of that when comparing this fiscal year's figure to the figure of 4.9% from the previous fiscal year. In addition, our rate of recovery of valuable materials was 30%, which is an increase of around 8% from the previous year. Recovery of valuable materials is also important from the perspective of material recycling, which is a valuable resource, and the ULVAC Group will continue to promote it.

#### **Performance data**





In order to reduce the environmental impact attributable to business activities, the ULVAC Group will continue to pursue environmental management activities at all companies.

#### First Global Work Improvement Presentation

~Awarded the silver prize~ Facilities Manager, General Administration Departme ULVAC TOHOKU, Inc.

#### Kohsei Komukai

#### Promoting aggressing energy conservation to achieve the **Group's targets**



All managers (The author is in the middle)

At this presentation meeting, which included overseas companies, we made a presentation titled "ULVAC TOHOKU's Plant Energy Reduction Activity Report," receiving a silver prize for our 3-year long-term energy conservation results. All employees will use this valuable experience of continuously striving to achieve results to devote themselves to the future growth of the Company through initiatives with lofty targets.

Furthermore, with regard to the target of "reducing energy costs by 10% in 5 years compared to the fiscal 2013" which the entire ULVAC Group is working

towards, we will continue to pursue aggressing energy savings in order to achieve results that will enable us to participate in the Global Work Improvement Presentation once more.



Presentation at the presentation meeting

**Roundtable Discussion** 

## **Heading towards a further** growth phase

Change of activities in terms of production from VITALIZATION to integration, to be 'One ULVAC'

MODERATOR Senior Manager, Corporate Communications & IR Team, Management Planning Division, ULVAC Inc. Noriaki Suzuki



HIDEYUKI ODAGI

JUN MORIMOTO

ULVAC Inc Director and Managing Executive Officer, Senior General Manager, Advanced Manufacturing Division

UI VAC Inc. Senior Manager, Quality Assurance Department, Manufacturing Technology Center and Production Training Planning Center, Advanced Manufacturing Division



Tomoko Hirose

ULVAC Inc Staff Manager, Production Training Planning Center, Advanced Manufacturing Division

ince fiscal 2012, ULVAC Group has been pursuing the 'structural business reform project' with the keyword of VITALIZATION. This has led to strengthened global cooperation with our development, sales and production sections, and increased product competitiveness and profitability, etc. In addition, in order to achieve further solid growth, we have changed a course towards management that embodies the keyword of 'One ULVAC'. With that in mind, the managers of manufacturing department met and held a round-table talk to discuss how we have been attempting to enhance our collective capabilities, based on our development capability and human resources that are the origin of the ULVAC Group's value creation.

Moderator: It certainly seems that through the structural business reform project, the role of the Advanced Manufacturing Division has changed considerably.

Odagi: The role of the Advanced Manufacturing Division has been mainly to support other divisions such as improvement of operational efficiency (e.g. accounting, email systems) through the introduction of

IT, administrative office of the quality and environmental management systems, conducting quality inspections, purchasing parts and support for ensuring safety and protecting the environment before. However, at present we are also responsible for certainly implementing front loading and making systems to create stable profit under the structural business reform project made three years ago. Specifically, it is our main mission now that we actively participate in MONODZUKURI site of divisions and cooperative working group companies, instruct and advise them for improvement depending on the situation, and control the whole Group's MONODZUKURI. So to speak, our role has been changed from supporting divisions to leading them. It confused us a little at first, but now all of us feel a firm sense of mission toward further growth of ULVAC Group.

Moderator: One year has now passed since you assumed the management role of manufacturing. How do you rate the current status of the implementation of front loading and MONODZUKURI systems?

Odagi: Over the last three years, our keyword has been VITALIZATION and I think that by thoroughly implementing front loading, we have

certainly established MONODZUKURI systems that will create profit according to our plan. Although we faced various issues during the course of our activities, but we re-examining our way of conducting business from scratch, and to the entire Group coming together to strive for improvement, rather than being bound by conventional practices. Since the time we introduced front loading, the number of troubles and production budget overruns have actually decreased. Also, as we have started to see improvements come to fruition, our motivation and drive have increased, and exchanges of ideas between departments have become livelier. Furthermore, the efforts of each business division have exhibited synergistic effects so that the entire Group's MONODZUKURI systems and attitude have been vitalized and have been improving exponentially.

Morimoto: At the moment, changes in business conditions are extreme and I think that the amount that can be achieved by making improvements in a single organization or a single division is limited. However, through the whole Group has a common way of thinking and share ideas to conduct initiatives in this manner, we have been developing many new ideas and have been able to raise results and efficiency by several levels. Our mission at the Advanced Manufacturing Division is to constantly promote vitalization while ensuring that we monitor these kinds of initiatives. At present, the results of our frontloading initiatives are gradually improving; however, I would like to see us to promote further vitalization with the aim of ensuring establishment and effective operation at each department and Groupwide implementation.

Moderator: On the point of VITALIZATION, three ULVAC Group Vitalization Programs have been rolled out since fiscal 2014. Please tell us about the background of these initiatives and the activities that they entail.

**Odagi:** By promoting front loading, we have organized and vitalized our MONODZUKURI systems; however, I think that there is still plenty of room for improvement. The source of the ULVAC Group's value creation is human resources and unless we maximize the abilities and skills of our employees, and leverage the Group's diversity to the maximum extent possible, we will not be able to approach the 'ideal form' that ULVAC is aiming for. In short, we must strengthen both MONODZUKURI systems

**Moderator:** It seems that this has really resonated with the employees. Hirose: Expanding initiatives that have previously been conducted in individual countries to the entire group has generated a sense of friendly rivalry, which has served as an impetus, and increasing opportunities for communication has resulted in all employees engaging passionately with these initiatives. Actually, the other day we participated in the preliminary in China, which provided an opportunity to showcase the success to the whole group, and I felt that this greatly increased motivation. Also, I heard that the number of employees who wished to engage in further study of engineering in Japan is increasing. I think it is fair to say that one of the results of the current programs is that they have increased the enthusiasm of all employees.

and training for the personnel that support them. With that in mind, in fiscal 2014, we globalized the 'Manufacturing Technology Competition' that we had previously conducted, and commenced rolling out the Global Business Improvement Competition and the Skill Challenge for a total of three ULVAC Group Vitalization Programs. (Refer to page 38 for details.)

Morimoto: I think that the competitive edge and value of the ULVAC Group are its comprehensive capabilities and that it has a diverse range of personnel around the globe. We are now becoming aware of this competitive edge and value once more, and we have created these programs in order to maximize the capabilities of our personnel and achieve vitalization. The important point in this instance is that we have applied these programs to all organizations and divisions, including administration, without limiting ourselves to engineering fields. We aim for employees, who work in a range of divisions, announce their everyday successes and educational skills, etc. and share with each other, while also competing against each other, to achieve global business improvements. And we also aim for a structure where the proposals, original ideas and successes of employees are widely and fairly judged and evaluated while also leveraging the strengths of management.

Moderator: Speaking of enhancing engineering capabilities, in fiscal 2015 the Advanced Manufacturing Division established a new Production Training Planning Center, who is now engaged in engineering training.

Odagi: I think that vacuum technology is particularly necessary in growing markets. Until now, we have been dauntlessly challenging ourselves to create new value that is demanded by the times based on our corporate philosophy of 'aiming at contributing to the evolution of industries and sciences by using vacuum technologies.' In recent years, social problems such as global environmental issues have become prominent, and I think that the ULVAC Group's products and technology can contribute, particularly in the fields of energy and IoT. However, those fields require even more difficult technological development than previously, and because stable profit creation during development is essential, speed and efficiency are also required. The most essential thing is technological capability, so gaining new skills and improving technology are important. We established the Production Training Planning Center to devote ourselves even more to engineering training.

Hirose: Until now, employee training has been conducted by the Personnel Department; however, we decided to conduct more professional engineering training at the Advanced Manufacturing Division. At present, the Advanced Manufacturing Division, in conjunction with the Board of Department Managers, determines the ideal form of each department and, based on this, creates training materials to draw out the necessary core techniques and skills. In the future, we will create programs around these training materials, and systematically implement training programs for our engineers.

**Morimoto:** In the future, I expect that these training programs will lead to further growth of employees and career enhancement. For example, employees who have gained experiences in manufacturing might aim to become manufacturing leaders or managers. Another option would be to leverage the experiences gained through manufacturing and aim for a job in design or engineering. Having a personnel mobility that is not always fixated on the same task vitalizes both organizations and people. Also, improved technological capabilities and results lead to Group-wide growth. I think that this kind of setup is ideal.

Moderator: Finally, I would like to ask about future initiatives. President Obinata has stated that from fiscal 2015, ULVAC will promote management with the keyword of 'One ULVAC.' Please tell us about the future outlook for initiatives aimed at 'One ULVAC' at the Advanced Manufacturing Division.

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**Odagi:** Until now, under the keyword of VITALIZATION, we have been continuously and thoroughly implementing enhancements to our MONODZUKURI systems and development of human resources that support them by thoroughly implementing front loading. From now on, we will be adding the keyword of 'One ULVAC,' so we are aiming for maximum efficiency throughout the entire business, which extends beyond the bounds of individual divisions or companies. I think that this means being able to concentrate on achieving our goal of having a stable business structure by completely eliminating unreasonable, inconsistency and waste, and focusing the energy of all employee in the same direction. This includes the integration of development, sales and manufacturing, as well as the integration of the Group and various organizations. Firstly, we will promote reform for 'One ULVAC,' with a focus on domestic manufacturing systems. We will face many challenges, but to create new value that is demanded by the times, all Group employees must work together and strive to become a corporate group that not only engages in a broad range of industries, but also one that is needed by society.







The 1<sup>st</sup> ULVAC Group Skill Challenge

### **Global Production**

Diversity (having human resources with different ways of thinking and from different cultures) stimulates and vitalizes organizations. We continue developing ULVAC Group vitalization program and enhancing its value chain as integrated group in order to ascertain what our strength in MONODZUKURI is, to enhance it more and to make up for deficiencies.

#### **ULVAC Group Vitalization Program**

Employees, who work for ULVAC in departments such as engineering, manufacturing, administrative, sales, common and head office, compete by their skills and their results that they usually cultivate through their work. These activities allow us to utilize their proposals and ideas in our management, to appreciate, and to widely share and making use of the original ideas and the fruits of their efforts, by continuing these programs globally.

#### **Gold Winners' Comments**

#### **1** Global Manufacturing Technology Competition<sup>\*1</sup>

ULVAC Group hold a 2 step competition, which is a preliminary competition with regard to specified theme related to manufacturing technology in each region and its gualifiers' finals. We aim at guality improvement, and sharing and utilizing their results in the entire Group.



#### 2 Global Business Improvement Competition<sup>\*1</sup>

Presentations with the theme of "'KAIZEN' for the future" were given by Group companies, who have been implementing improvement activities and 5S activities in each department, including administrative, sales, common

and head office departments. And the achievements were shared and utilized with ULVAC Group.



#### **3** Skill Challenge<sup>\*2</sup>

As we realized again the importance of on-site skills in our MONODZUKURI, we not only aim for further improvement of the individual skill, but also transmit and share skills throughout the Group by competing in all ULVAC for the skills

cultivated through daily work



\*1: On this occasion, 14 companies from 6 countries participated in 18 themes \*2: On this occasion, 6 people from 5 companies in 5 countries participated



Engineering Departmen Components Division

ULVAC Inc.

Health Promotion Office, Personnel Department ULVAC Inc.





#### MONODZUKURI IN DC POWER SUPPLY PRODUCTION



It was the good and rare experience for me that I made the presentation in front of a large audience. Furthermore, it was great publicity as we were able to let them know about the new DC power supply, and how we produce it at Chigasaki Plant in conjunction with various departments. I'm sure that I will be able to make use of my experiences at this competition, including interactions with other presenters, in my work in the future.



#### DEVELOPMENT OF A WEB-BASED QUESTIONNAIRE USING A DATABASE **APPLICATION TO CONNECT INDIRECT** DEPARTMENTS WITH EMPLOYEES

As an employee who has been working hard every day in a back-office department, I have been thinking it would be nice if I were able to have this kind of opportunity, so I jumped at the chance to participate in this plan, and I was very happy to get the good evaluation. Also, through this competition, I found that many people work hard in the head office and back-office departments, and it gave me a real sense

of the future growth that can be expected from the company. I would like to continue working wholeheartedly and supporting the business behind the scenes.



Kinki Group 1 Sakai Center, Sakai Headquarters FOS Division ULVAC Human Relations, Ltd.

#### PUMP OVERHAUL OF SERVICE AND MAINTENANCE CATEGORY

Through this Skill Challenge, I experienced the feeling of tension that I was not usually able to experience in my work and an even greater sense of achievement. Furthermore, this competition made me aware that I have company who are involved in pump maintenance all over the world. I am very proud that my name is associated with the momentous first-ever Skill Challenge. I hope that Skill Challenges will be held in a variety of fields in the future, and that these Skill Challenges will vitalize the whole ULVAC Group.

### **Social Contribution Activities**

We are promoting global social contribution activities rooted in local regions and cultures based on the ULVAC Group's Basic Policy for Social Contribution Activities.

#### ULVAC's Social Contribution Activities

The ULVAC Group has long been involved in a wide range of social contribution activities around the world. In 2013, We set out a basic policy and priority subjects for social contribution activities in order to the growing awareness of the importance of corporate social contributions. In line with the policy, we will continue to contribute to regional and international communities by effectively using the technologies and human resources of the ULVAC Group to solve various social issues.

#### **Basic Policy for Social Contribution Activities**

Based on its corporate philosophy of contributing to the growth of industry and science with innovative, cutting-edge technologies, the ULVAC Group provides distinctive technological innovations globally and implements initiatives for solving various social problems by using ULVAC's technologies and human resources.



Number of social contribution activities conducted by the ULVAC Group in fiscal 2014





nonstrations at local events

Tanbo (Rice Field) Project

#### Volunteer activities at local events (ULVAC, Inc., ULVAC KYUSHU CORPORATION, ULVAC TECHNO, Ltd.)

In March 2015, the ULVAC Group, and ULVAC KYUSHU CORPORATION in particular, supplied volunteer staff to the 14th Yamagano Walking Event held in Yokogawa-cho, Kirishima-shi, Kagoshima Prefecture. They prepared the walking environment and erected tents and signs, we well as guiding participants and introducing historic features at important points on the day. 15 staff members participated, experiencing the

remains of Yamagano Kinzan by touring historic features and explaining these features to participants.



Volunteer staff at the 14th Yamagano Walking Event

2

A 6 8.

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#### PET bottle cap collection ((ULVAC, Inc.)



then used to provide vaccines for the children of the world through the incorporated NPO, Japan Committee, Vaccines for the World's Children (JCV). To this point, we have collected 2,173 kg of bottle caps in total, which is enough to provide polio vaccine to 1,738 people.

Award received from the incorporated NPO, Re Lifestyle in recognition of our continued activities.





In March 2015, ULVAC TAIWAN Inc. donated a total of 8 boxes of employees' clothing to the elderly as well as people on low incomes and people with disabilities through Corning Education Center, which supports independent living, receiving a certificate of appreciation.



Donation to the Corning Education Center (Taiwan) and certificate of appreciation

### **Corporate Governance**

The ULVAC Group understands that corporate governance involves ensuring absolute adherence to corporate ethics and legal compliance, while engaging in competitive and efficient management. We believe that this leads to sustainable growth and medium to long-term increases in corporate value, and we recognize that corporate governance is the most important management issue in order to fulfill our corporate responsibility to society and our shareholders.

#### **ULVAC's Management Structure**

For making decisions on particularly important managerial issues, ULVAC has the Board of Directors, which consists of 8 directors, including 3 external directors, and meets as required in addition to regular monthly meetings. Furthermore, we have appointed one of our external directors as an independent external director.

For monitoring managerial decisions and business execution, ULVAC has the Board of Corporate Auditors, which consists of 4 corporate auditors, including 2 external auditors. Furthermore, we have appointed one of our external corporate auditors as an independent external corporate auditor. Half of the Board of Corporate Auditors comprises external corporate auditors and by appointing an independent external corporate auditor, we are able to ensure completely stringent, fair, impartial and transparent auditing, and expand our auditing functions.

ULVAC Management Structure



### -

#### **Operational Structure**

ULVAC has the Board of Standing Directors and Auditors to supplement the decisions made by the Board of Directors, further enabling the prompt and efficient execution of business operations. Meetings of the Board of Standing Directors and Auditors are held twice a month, and additional ad hoc meetings are held as required. The Board of Standing Directors and Auditors has 18 members consisting of standing directors and executive officers. Through this, we have achieved a flexible business execution infrastructure that allows us to achieve both careful deliberation and decision making with regard to important management matters and streamlined business execution. At the same time, from a supervisory perspective, we are implementing checks and balances by clarifying the rights and responsibilities of each director and executive, as well as having an external director conduct checks from a fairness perspective.

### **Board of Directors and Auditors**

(End of September 2015)

Directors



Hisaharu Obinata President and Chief Executive Officer





Auditors

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Mitsuru Motoyoshi Director Senior Managing Executive Officer



Masasuke Matsudai Director Senior Managing Executive



Hideyuki Odagi Director Managing Executive Officer



Akira Mihayashi External Director



Syuzo Ikeda

External Director



Norio Uchida External Director

**Executive Officers** 





Setsuo Iwashita Senior Managing Executive Officer

Masatoshi Yamamoto Senior Managing Executive Officer



Hiroyuki Hirano Executive Officer

Dr. Kazuya Saito Executive Officer





Youichi Oohinata Executive Officer

Kiyokazu Yanagisawa Executive Officer





Senshu Asada External Auditor



Kazumi Ohtsuka External Auditor



Seiichi Takahashi Auditors



Makoto Ito Auditors









Takao Nakamura Managing Executive Officer

Dr. Paik Choong Ryul



Junki Fujiyama Managing Executive Officer Managing Executive Officer



Akira Umeda Executive Officer



Shigemitsu Sato Executive Officer



Ryou Matsumoto Executive Officer



Tsai Yu Jer Executive Officer

### Compliance

To introduce systems for full compliance with laws and regulations, the ULVAC Group has systematically established Compliance Regulations and related rules. In accordance with these regulations and rules, the ULVAC Group has also established operational procedures for the Compliance Committee and the Compliance Violation Reporting System and has been working to cement a spirit of compliance across the company.

## Establishment of a Corporate Code of Conduct

ULVAC has established a Corporate Code of Conduct consisting of 18 items that describe the behavioral standards expected of employees. After describing the details, we give employees a booklet that describes the content of this code. The booklet helps employees to act in compliance with the law as a representative of our business.

## Compliance with Laws and Regulations via the Whistleblowing System

ULVAC has developed a Whistleblowing System to minimize the effects of any violations of laws and regulations. The contact point for the Whistleblowing System is the Internal Auditing Office that serves as the secretariat of the Compliance Committee, the internal compliance investigation division. To facilitate the use of the Whistleblowing System, the independence of the office's activities is ensured, and anonymous information is accepted. Moreover, the President and general managers of each department serve as members of the Compliance Committee to ensure prudent examination while assuring the fairness of internal investigations. Each member is required to maintain strict confidentiality, and to operate the system so that reporters and investigators are not treated detrimentally. In this manger, internal investigations are carefully conducted. Numerous interviews are held with both internal and external parties, and attorneys attend any cases requiring their expertise.

#### **Dealing with Acts of Violation**

If, as the result of an investigation, the Compliance Committee finds that laws and internal regulations are being violated, action is quickly taken to put a stop to the act causing the violation. Penalties are imposed on those involved in the violation, and adequate penalties are imposed in the case of serious violations after examination by the Disciplinary Committee. In addition, the fundamental causes that brought about the violation are also studied to formulate effective measures for preventing recurrence.

#### Responding to the Results of the Employee CSR Awareness Survey

At ULVAC, we set targets for our stakeholder initiatives each year, and promote CSR activities. In the fiscal 2014, we revamped the CSR employee awareness survey, with the aim of moving away from a focus on improvements in the CSR awareness of employees to providing information about specific goals and activities to employees, who are also stakeholders, and deepening their understanding, while also listening to our employees and increasing the quality of each of our initiatives (the PDCA cycle).

From March 16 to April 10, 2014, we administered the survey to 1,259 employees and received 642 responses (a response rate of 51.0%).

This was the first time we had included the new items in the survey, so we are using this as a baseline for feedback regarding each

### activity, and we are working towards increased quality in our future CSR activities.

Also, the 5 items regarding which our employees expressed the highest expectations are as follows. We will invest even more energy in our initiatives in the future.

### Top 5 items with highest expectations (percentage of employees expressing expectation)

- Creating a safe workplace: 67.5%
- Providing safety and security to customers: 65.8%
- Supplying the quality consistency of the ULVAC brand: 61.7%
- Promoting the development of products to reduce environmental impact: **61.3%**
- Reducing risk to employees' health: 60.8%

### **Risk Management**

The ULVAC Group has developed an organization that facilitates prompt and appropriate action against increasingly complex and diverse risk factors, through a process of identification, classification, analysis, and evaluation. By linking the risk management system to strategic business administration, we seek to achieve even greater corporate value.

#### Creating a Risk Management System

The ULVAC Group believes that expanding the risk management system is a critical business task. Thus, we have established the ULVAC Risk Management Policy to ensure that there are common rules across the ULVAC Group. The President of each group company assumes the position of Chief Risk Officer and shares risk information with related departments.

Important information is promptly conveyed from the President of each group company to the President of ULVAC, Inc.

#### **Risk Management System**

ULVAC has classified a wide range of risks, and has set up departments responsible for each of them. Each department functions as an information center that works with related departments to identify and evaluate all specific risks. In addition, the responsible departments constantly collect risk information, respond appropriately to risks and detect issues. For risk information deemed to be important in the evaluation process, we continually collect information to enable prompt responses to emergencies. A Risk Management Committee, chaired by the President and comprised of the departments responsible for the risks, has also been established to verify the risk management system. As the supervising organization for risk management, the Committee meets twice a year to set out basic policies and improve the management and operation.



#### Risk Management System

- Risk management activities are implemented by the responsible departments through the PDCA processes.
- Each group company decides upon the necessity of establishing its Risk Management Committee in consideration of its size and other factors.

### CSR Activities for Fiscal 2014 and Targets for Fiscal 2015

Based on its corporate philosophy of contributing to the growth of industry and science with innovative, cutting-edge technologies, the ULVAC Group provides distinctive technological innovations globally and implements initiatives for solving various social problems by using ULVAC's technologies and human resources.

Stakeholders	Communication guidelines	Fiscal 2014 targets
Customers	With a high priority on a trusting relationship with customers, we engage in various efforts to enhance the quality and safety of our products.	<ul> <li>Thoroughly implement the global integration certification (Phase 1) of ISO9000/14001.</li> <li>Cement the quality inspection that is in accordance with front loading.</li> </ul>
Suppliers	We strive to maintain and promote fair and appropriate transactions with our suppliers to help establish a secure relationship of mutual trust.	Participate in design reviews at the design stage in operating divisions to reduce consolidated cost of ULVAC Group through cost reduction in preceding process. (Goods purchased: keep at 8.0%, Goods produced: make cost reduction proposals to each operating division.)
Shareholders and investors	We will endeavor to ensure the timely disclosure of business activities and financial information to promote communication with shareholders and investors.	Continuously disclose information related to the progress of medium-term management plan while promoting corporate communication.
		Revise the questionnaire items in CSR awareness surveys.
		<ul> <li>Conduct company-wide hearing in preparation of the personnel rotation and reorganization.</li> <li>Prepare training system for engineers to ensure their acquisition of skills.</li> <li>Continue interviews and other means to respond to the employees who were determined to require medical guidance in order to further reduce the health risks.</li> <li>With a view to rulemaking of stress checkups, prepare check system enabling early response to the mental health problem and improvement of the workplace.</li> <li>Through mental health seminars, enhance communication at workplace and raise the motivation.</li> </ul>
Employees	We will endeavor to provide employees with diverse working opportunities and an environment in which they can work in comfort and with a sense of security.	<ul> <li>Prepare common education program across the ULVAC Group.</li> <li>Share a sense of advantage in working at ULVAC among the Group employees through coordinated Group-wide philosophy in manufacturing which binds the individual employees together.</li> </ul>
		<ol> <li>Halve the number of occupational accidents in ULVAC Group compared to the previous fiscal year.</li> <li>Keep the number of product accidents in ULVAC Group at low level continuously from the previous fiscal year.</li> </ol>
	We will consider environmental conservation in all aspects of our	Continue to promote the development of products that contribute to reducing the environmental burden. Example: Products with low energy consumption Products with less resource loading Products compatible with Restrictions of Chemical Substances in Products
Environment	to live and an enriched society.	As entire ULVAC Group, reduce the energy use by 10% compared with the fiscal 2013 in the next five years.
		As part of Tanbo Project, newly create Tanbo pictorial book representing the creatures in rice fields at Chigasaki.
Local community	We will perform social contribution activities based on the practices and cultures of the countries and regions in which we operate.	Introduce our initiatives to each Group company and promote the activity.

Fiscal 2014 achievements	Self-assessment of the fiscal 2014 achievements	Fiscal 2015 targets	Referenc page
<ul> <li>Completed globally integrated ISO9000/14001 certification (phase 1).</li> <li>Rolled out 6-stage design reviews as a front loading strategy and contributed to the control of added costs.</li> </ul>	0	<ul> <li>Thoroughly implement globally integrated ISO9000/14001 certification (phase 2).</li> <li>Promote group-wide roll out of quality improvement items from the global management review.</li> <li>Promote group-wide roll out of front loading.</li> <li>Aim to reduce the number of the ULVAC Group's product accidents to half that of the previous fiscal year.</li> </ul>	P27
Reduced costs through design reviews and cost reduction meetings Goods purchased: 6.5% Goods produced: 6.0% (ULVAC, Inc. + ULVAC TOHOKU, Inc. + ULVAC KYUSHU CORPORATION)	Δ	<ul> <li>Continue the supplier BCP survey</li> <li>Respond to the conflict minerals issue         <ul> <li>Consider obtaining CFS certification</li> </ul> </li> <li>Periodically exchange information with suppliers         <ul> <li>Ensure substantial content of supplier meetings</li> <li>Individual visits to major suppliers</li> </ul> </li> </ul>	P28
Held 129 meetings for institutional investors and 2 technology seminars. Also worked towards the promotion of internal and external communications through the creation of company introduction videos.	0	Promote information transmission such as technology seminars, while working to provide more interviews with institutional investors than in last fiscal year	-
Entirely revised questions based on CSR targets.	0	Provide the results of the CSR awareness survey as feedback for each division and reflect them in initiatives	P43
<ol> <li>Conducted personnel rotation based on interviews with the head of division.</li> <li>Created a technician education system and conducted seminars for each job type.</li> <li>100% rate of responding to those requiring medical guidance for high health risks.</li> <li>100% rate of attendance at interviews for those diagnosed with mental health issues. Revisions conducted to bring into line with questions required for legislatively mandated stress checkups (from December 2015).</li> <li>Conducted line-care education for managers and self-care education for all personnel.</li> </ol>	1○ 2○ 6© 4© 5∆	<ul> <li>Continue interviews for the purpose of HR-related opinion gathering and information sharing (system, employment, and education).</li> <li>Pursue the development of next-generation leaders.</li> <li>Conduct activities aimed at preventing aggravation of diseases in conjunction with the ULVAC Health Insurance Association in order to reduce health risks.</li> <li>Utilize the results of stress checks and promote activities for the purpose of organizational invigoration.</li> </ul>	P29-31
<ul> <li>Completed sharing of educational content of each individual company.</li> <li>Established an education center in the advanced manufacturing division in fiscal 2015, in order to systematize specialist manufacturing-related education and plan and conduct instructor development, including for Group companies.</li> <li>Shared improvement activities and their results, and planned and implemented mechanisms to mutually boost awareness as Group revitalization initiatives as part of the programs of the Global Production Technology Reporting Meeting, Global Work Improvement Presentation, and Skill Challenge.</li> </ul>	0	<ul> <li>Systematize the manufacturing pro education curriculum, and begin instructor development.</li> <li>Continue global presentation meetings, arising from the Global Manufacturing Technology Competition, the Global Business Improvement Competition, and the Skill Challenge, share initiatives, thoughts, and results relating to manufacturing and technology throughout the group, and revitalize interactions.</li> </ul>	P35-38
<ol> <li>Although the number of work related accidents at the ULVAC Group rose slightly over the previous fiscal year, work-related accidents requiring time away from work fell.</li> <li>The number of the ULVAC Group's product accidents remained at the same low level as the previous fiscal year.</li> </ol>	1 <u>^</u> 20	<ul> <li>Aim to reduce the number of the ULVAC Group's work-related accidents to half that of the previous fiscal year.</li> <li>* We will transfer product safety targets to the customers' section from this fiscal year.</li> </ul>	P32
Companies and divisions with original products pursued activities for new environmental product creation.	0	Continue to promote development of products to reduce environmental impact. Example: Products with low energy consumption Products with low resource loading Products compatible with restrictions on Chemical Substances in Products	
Each company in the group created an energy management system (organization), and analyzed the energy usage of each company based on the ULVAC Group's energy conservation manual. Looking forward, we will pursue energy conservation, using this analysis to determine important points for conservation.	O	Continue to reduce the ULVAC Group's energy use by 10% compared with the fiscal 2013 in the next five years.	P33-34 P39
Following on from the previous fiscal year, we created the ULVAC pictorial book of creatures that live around rice fields.	0	Continue to pursue the creation of the ULVAC pictorial book of nature around rice fields, which newly introduces the creatures living in the rice fields of Chigasaki as part of the Tanbo (Rice Field) Project. Create awareness of the natural environment of Chigasaki and the ULVAC Tanbo (Rice Field) Project.	
Introduced ULVAC's social contribution activities both internally and externally through internal bulletins, ULVAC reports, and SNS etc.	Δ	Continue to introduce initiatives and promote activities to deepen understanding of ULVAC Group Companies' social contribution activities.	P39

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#### $\bigcirc$ : Higher achievements than targeted $\bigcirc$ : Targets achieved or proceeded as planned $\triangle$ : Effort required $\times$ : Further effort required