

About the ULVAC Group

## Vacuum Equipment Business & Vacuum Application Business

The ULVAC Group practices CSR by fulfilling its responsibilities to all stakeholders and contributing to society through the research and development of cutting-edge technologies.

# Others

FPD & PV

production

equipment

## Others

Surface analytical Equipment Control System Contract manufacturing

## ► Flat-panel display (FPD) production equipment

Liquid crystal display (LCD) production equipment

- Plasma display production equipment
- · OLED production equipment
- Inkiet printers



## Photovoltaic cell (PV) production equipment

Thin-film-type silicon solar cell production equipment

- Crystal-type solar cell production equipment
- Compound-type solar cell production equipment
- Quick charger systems for photovoltaic power generation and electric vehicles



## **Components**

Vacuum freeze-dryers

- Vacuum pumps · Various vacuum gauges
- Helium leak detectors

**Business Segments of the ULVAC Group** 

▶ Vacuum equipment business ▶ Vacuum application business

the fabrication of parts

Nano metal ink

Materials and parts

Industrial equipment

Vacuum winding and evaporation equipment

Mass spectrometers · Surface profile measuring equipment

Active metal-based materials with high melting points and

Vacuum heat treatment furnaces · Vacuum brazing furnaces

rare-earth permanent magnets · Vacuum sintering furnaces

Vacuum melting furnaces · Mass-production equipment for

Solar cell measuring equipment

#### Semiconductor and electronic device production equipment Semiconductor production equipmen

for memories, power semiconductors, etc.)

- Light-emitting diode (LED) production equipment
- Electronic device production equipment

▶2004: New buildings of Chigasaki Head Office/Plant were completed.

▶2004: Listed its stock on the First Section of the Tokyo Stock Exchange.

2004: Established a production base for full-scale vacuum equipment in Suzhou, China.

## ULVAC Group's 60-Year Milestones

▶1959:



▶1955:

and started Plant.

Established the Established

Omori Plant the Yokohama

corporation in Hong





Established the Institute for Super Materials as ULVAC's first full-scale

The Chigasaki Head Office / Plant was



**▶**1990:

and

electronic

device

production



Established the Fuji Susono Plant as a dedica plant for semiconducto

Components



Stock listed on the First Section of the Tokyo Stock Exchange



**▶**2001:

Established The Institute for

Chigasaki Head Office/Plant

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

ablished a production subsidiary for large LCD production equipment in Taiwan.

Established the Chiba Tomisato Plant for the development

Established the Institute for Super Materials in South Korea

#### ▶1956-1959:

of equipment

Extended business fields as an integrated vacuum manufacturer through a merger with Toyo Seiki Vacuum Research Co., Ltd. (1956), and the transfer of engineers from Tokuda Manufacturing Co., Ltd. (1959).

▶1952:

Received the first order of vacuum evaporation equipment for coating automobile parts from HAKKOSHA.

Developed large vacuum equipment for heavy industries such as vacuum melting furnaces and vacuum distilling





Delivered "SYSTEM 731," the world's first computer-con-trolled, fully automatic vacuum



▶1986:

The "MCH Series," the world's first tering system, has many semiconduc



The "SHD Series," a sputtering



Established a pro-

duction base in China

and a sales/service

base in South Korea

Launched the dedicated LCD production "SMD



**2007**: Received an order for an integrated production line for thin-film solar cells



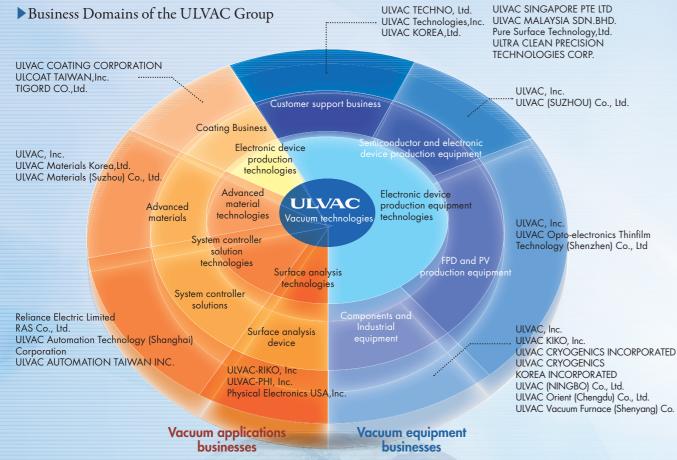
Launched the dedicated LCD production "SMD Series" deposition system, which became a corner-stone of the FPD business.

Developed "Magrise," a system for the mass-production of rare-earth permanent magnets, and the integrated mass-production technology for thinfilm lithium secondary cells as promising post-FPD



# Corporate Profile of ULVAC Group

- Head Office: ULVAC, Inc.2500 Hagisono, Chigasaki, Kanagawa
- **Established**: August 23, 1952  **Capital**: 20,873,042,500 yen (As of September 27, 2012)
- Number of Employees: 1,289 (6,981 including consolidated subsidiaries)
- Business Areas: Development, manufacturing, sale, and customer support for vacuum equipment, peripheral devices, vacuum components, and materials for the display, 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 technology in general.



## **ULVAC** Group

#### ULVAC, Inc.

**ULVAC Group Companies in Japan** 

LIIVAC TECHNO Itd ULVAC KYUSHU CORPORATION UIVAC TOHOKU Inc.

ULVAC-RIKO, Inc. ULVAC KIKO, Inc.

Reliance Electric Limited

UIVAC FOUIPMENT SALES Inc. ULVAC CRYOGENICS INCORPORATED

ULVAC-PHI, Inc ULVAC COATING CORPORATION

SHOWA SHINKU CO., LTD. SANKO ULVAC Co., Ltd.

RAS Co., Ltd. TIGORD CO..Ltd

Nisshin Seigyo

ULVAC ENGINEERING, Inc.

ULVAC HUMAN RELATIONS, Ltd. SHINKU CERAMICS

**Overseas ULVAC Group Companies** 

North America

ULVAC Technologies, Inc. Physical Electronics USA,Inc.

Europe UIVAC G.m.b.H.

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 (Jing Jiang) Co., Ltd.

ULVAC Vacuum Furnace (Shenyang) Co., Ltd.

ULVAC (SHANGHAI) CO., LTD ULVAC CRYOGENICS (NINGBO) INCORPORATED

ULVAC (Shanghai) Trading Co., Ltd.

ULVAC NONFERROUS METALS (NINGBO) CO., LTD.

ULVAC Materials (Suzhou) CO., LTD. ULVAC Opto-electronics Thinfilm Technology

(Shenzhen) Co., Ltd.

ULVAC Research Center Suzhou Co., Ltd. Luoyang Xinyou Magnesium Co., LTD

Hong Kong ULVAC Co., Ltd.

Taiwan

LIIVAC TAIWAN INC

ULTRA CLEAN PRECISION TECHNOLOGIES CORP

ULVAC SOFTWARE CREATIVE TECHNOLOGY, Co., Ltd.

ULVAC Materials Taiwan, Inc. LIIVAC AUTOMATION TAIWAN INC.

ULVAC Research Center TAIWAN,Inc. ULCOAT TAIWAN.Inc.

South Korea ULVAC KOREA, Ltd.

Ulvac Korea Precision Ltd Pure Surface Technology, Ltd.

ULVAC CRYOGENICS KOREA INCORPORATED

UF TECH.Ltd. ULVAC Materials Korea.Ltd

Southeast Asia

ULVAC SINGAPORE PTE LTD ULVAC MALAYSIA SDN.BHD. UIVAC (THAILAND) ITD

## **Editorial Policy**

We have integrated the previous Annual Report and the CSR Report into this ULVAC REPORT for the fiscal year ended June 30, 2012. 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.

## 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.

#### Year ended June 30, 2012 (July 1, 2011, to June 30, 2012)

Portions with information relating to periods other than the above are indicated.

#### Published:

September 2012

(Previous Japanese edition published in September 2011; the next edition is to be published in September 2013.)

#### Guidelines Referenced:

ISO26000; 2010 (Guidance on social responsibility) first edition

#### (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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## ▶ Technology

ULVAC has turned its continuing pursuit of innovative leading-edge technologies into an engine of growth.As we seek to expand further, we are synthesizing our Group technologies and carrying out business activities globally.

Feature: Technology1	
IGZO Technology That Contributes to Next-Generation Displays	
Feature: Technology2	
Development of Next-Generation Memory to support the Cloud-Computing Society	
Improve the ULVAC Brand	ı
Quality Improvements to Pursue with Suppliers	ı

## Environment

Drawing on its innovative technologies, ULVAC contributes to the preservation of the the global environment. By continuing to develop innovative technologies, the Group will further contribute to a sustainable society.

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## ▶ Organization

ULVAC continues to pursue cutting-edge technologies, and such pursuit is so that the ULVAC Group's growth vector coordinates with individuals' talent vector. We will also maintain those aspects of our management that

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#### Carrying Out Business Structural Reforms to Move Beyond the Current Crisis

# First, explain the newly established management system.

**Suwa:** Suwa: At the ordinary general meeting of shareholders and the Board of Directors meeting held on September 27, 2012, a new management system was established by appointing me as chairman and Mr. Obinata as the President and CEO. Prior to these meetings, the Company had implemented an executive officer system as of July 1, 2012.

One reason for this change in top positions is to clarify management responsibility after having recorded an overall deficit in consolidated operating results for the fiscal year ended June 30, 2012. Another reason is to entrust Mr. Obinata to helm the ULVAC Group for the business structural reforms that are necessary to move beyond the current critical conditions. He is expected to act decisively given his proven management prowess as the President of some Group companies and his international experience.

The introduction of the executive officer system is aimed at appointing talented young people to high positions and increasing managerial flexibility in the pursuit of higher corporate value. We will manage the ULVAC Group by acting quickly and flexibly via Group governance that will be enhanced by downsizing previous board members and segregating the management decision-making and business oversight functions from the execution function.

# Mr. Obinata, having assumed the post of President, what are your aspirations?

Obinata: Obinata: I have been in the ULVAC Group for 40 years, having joined the Company in 1972. I served as President of ULVAC Technologies, Inc., in the United States for six years starting in 1998 and was President of ULVAC TECHNO, Ltd., for six years starting in 2006 in charge of customers' support of Group-made products. In fact, I was away from ULVAC, Inc., for 12 years. Looking at the present Company from an outsider's perspective, there is too much top-down decision making and employees' initiative is lacking in terms of creating profits and product development. I therefore intend to assign authority internally including Group companies to create vigorous organizations where employees can demonstrate their originality by planning and analyzing for themselves. In addition, I would like to focus on education and training to introduce external trends into our management and development methods without too much reliance on our own corporate culture.

My own mission as the new President is, after all, to return us to the black and aggressively promote structural reforms. Moreover, we will further improve product quality such as the degree of perfection of equipment. At the same time, we will improve profitability by monitoring projects regarding investments for development and cooperation with outside partners.

## Measures Accompanying the Business Structure Improvement Expenses Completed

#### Looking back on the operating circumstances for the fiscal year under review, what is your general overview?

**Suwa:** The order-receiving environment for the mainstay FPD and PV production equipment deteriorated due to the economic slowdown of the global economy primarily in Europe and the restriction on capital investment in Japan. Although a harsh business climate had been expected from the beginning of the year, LC-related large investment projects were suspended in the second half and demand for our solar cells declined, affected by a sharp drop in product prices due to an excessive supply of Chinese ones.

Obinata: Obinata: The sluggishness of the FPD- and PV-related industries became noticeable especially at the beginning of the calendar year. Business conditions in semiconductor-related industries remained firm, supported by an increase in demand for smartphones and tablet terminals. ULVAC suffered considerably from the aforementioned sluggishness because FPD and PV production equipment conventionally account for almost half of our net sales.

**Suwa:** Given such circumstances, although we aggressively addressed issues around the development of new equipment, we experienced additional costs. In addition, in view of the severe market environment for the current term, ULVAC implemented the "Business Structural Reform Plan" to reduce our breakeven point. Consequently, we posted large extraordinary losses. As a result, a net loss of \50 billion was recorded for the fiscal year under review, including a \13.5 billion reversal of deferred tax assets.

# What are your thoughts on the progress of the Business Structural Reform Plan?

**Suwa:** According to the Business Structural Reform Plan announced at the end of April 2011, the first-round reforms were executed mainly by reducing fixed costs to curtail negative elements on a profit-and-loss basis. Specifically, fixed costs were reduced via personnel reduction by soliciting voluntary retirees, as well as the reporting of a loss on disposal of fixed assets and a loss on devaluation of inventories. With these steps, our intended measures to address the business structural improvement expenses were completed during the fiscal year under review.

In the year ending June 2013 and beyond, we will carry out the second round of structural reforms with a focus on the profit-and-loss status.

The basic strategy of the intended initiatives is the "3S+1D" campaign—Emphasizing "Difference" in addition to cost-reduction efforts via "Simple" "Same" and "Standard". We will strengthen our competitiveness and increase sales while improving our gross margin with this campaign. Furthermore, we intend to convert from a large-pillar-based business structure, which depends on the mainstay FPD and PV production equipment, to a multi-pillared business structure.

Top Interview Interview with Top Management

As for marketing, the domestic sales force has been unified into a customer-focused sales system through ULVAC EQUIPMENT SALES, Inc., whereas the previous sales system was by division. Furthermore, several Product Manager (PM) Groups have been newly established as a part of a sales system by product. We intend to increase orders and improve profitability by raising customer satisfaction by fine-tuning and quickly addressing sales activities using these two sales systems effectively.

# Returning to the Black by Reducing the Breakeven Point

# Explain the outlook for the current term and your priorities.

Obinata: I will use all of my strengths to establish a new business structure while optimizing the favorable effects of the reduced fixed costs that resulted from the first-round reform measures taken by the former top management including Mr. Suwa. As mentioned, the order-receiving environment for FPD and PV production equipment has been deteriorating and net sales for the fiscal year ending June 30, 2013 are expected to decline substantially. The greatest management theme for me is to ensure steady profits and a return to profitability despite such a harsh forecast.

**Suwa:** We could reduce the breakeven point considerably as a result of the first-round reform initiatives. Therefore, a surplus is forecast given the sales program for the current term. We are determined to take the necessary measures to cope with the possible deterioration of our business environment. **Obinata:** Meanwhile, ULVAC's present financial structure



has become fragile with a decline in the equity ratio due to business structure improvement expenses being posted in the fiscal year under review. To regain soundness, the Company decided to issue classified stock (Class A preferred stock) via allotment to a third party. Through this capital reinforcement, we will be able to realize a sound financial structure (equity ratio) three years ahead of schedule. In that time frame, we will be able to ensure the funds necessary for our reforms in advance. The issuance scheme is designed to minimize the dilution effect of our issued shares by taking into account the interests of existing shareholders.

## What are the future priorities in the Business Structural Reform Plan?

**Suwa:** The Business Structural Reform Plan sets two objectives: ensuring "15 Dantotsu products\*" and achieving an "overseas production ratio of 50%." ULVAC products with a first- or second-ranked market share, or a gross margin of at least 35%, are categorized as leading-edge products. We currently have two products that meet these requirements. We will increase the number of corresponding products to 15 or more such that the net sales of the covered products reach approximately \40 billion.

Despite a modest sales scale, this initiative aims to address the aforementioned conversion from a large-pillar dependent business structure to a multi-pillared one.

The expansion of overseas production is a key theme for us in responding to the global strategies of corporate customers and strengthening our cost competitiveness. We have made strategic moves over the past 10 years in terms of streamlining our infrastructure to enhance our competitiveness. ULVAC's overseas production ratio is currently about 20%, but we intend to raise it to around 50% within three years. We plan to achieve this objective through human resource development such as training to upgrade skills for local hires without the need for a large investment.

Obinata: Promoting the previously mentioned 3S campaign is a key for our globalization in parallel with human resource development. In the future, I am confident that it will be increasingly important for us not only to challenge competitors on an equal footing overseas but also ensure cost competitiveness by pursuing the 3S in overseas production.

\*Dantotsu=Dominant\*only one\* differentiated products that

\*Dantotsu=Dominant"only one" differentiated products that stand alone a top the conpetition

## Growing Steadily to Increase Our Corporate Value

# What do you especially want to communicate to your shareholders?

**Suwa:** As I mentioned at the beginning, we will not have a year-end dividend because a large deficit was reported in the consolidated accounting for the year under review. We deeply regret and sincerely apologize for not paying a dividend for two consecutive terms. To build a financial structure that reports stable profits under the current harsh business environment, we will strive to early recover a surplus in operating results by steadily carrying out our second-round business structural reforms.

Obinata: Given the feedback that we receive from customers and investors, I feel that these stakeholders have high expectations for ULVAC's technological capabilities and development themes. To create the value that the world seeks in response to such expectations, ULVAC will exert its potential to the full extent to benefit industries and society, thereby raising its own corporate value.

## ULVAC Businesses That Have High Social Contribution and Public Benefits

# What are your thoughts on the relationship between ULVAC's technologies and its social contribution?

**Suwa:** ULVAC's corporate philosophy aims to contribute to the development of science and Industries with its propriecy cutting-edge technologies. Based on this corporate philosophy, we have continually focused on the development of new technologies. The resulting technologies have formed indispensable foundations for many industrial fields.

The source of ULVAC's creative activity resides in a spirit of inquiry similar to "a hunger to focus on new technology development." I take pride in the contributions of ULVAC businesses that benefit society, leading to the further development of industries and science and, by extension, benefiting the world.

# Explain your views on technology development toward a sustainable society.

Suwa: Suwa: The social need for energy conservation technology continues to increase in Japan against the backdrop of the global extension of environmental conservation activities in recent years and the feared electricity shortage due to the nuclear accident that occurred following the Great East Japan Earthquake. ULVAC-supplied technologies, such as PV production equipment to support photovoltaic power generation and production equipment for power semiconductors and LEDs as key energy-saving devices, play important roles in the environment and energy conservation fields.

As a production equipment manufacturer, ULVAC demonstrates its capacity to propose excellent environment and energy conservation solutions for equipment users to help them produce low-cost, high-performance devices. In addition, ULVAC focuses on the research and development that could lead to innovative devices.

# Focusing on Education while Improving the fair Treatment of Employees in Terms of Personnel and Organization

# What are the steps to realize a good workplace and a rewarding company?

**Suwa:** To my mind, ULVAC's corporate culture involves a tendency of fair treatment of employees regardless of differences in their competency/performance in the personnel and organizational aspects as a negative feature.



Consequently, many employees feel cozy in the status quo and some shortcomings are seen, for example, performance evaluations of employees bring about little difference, and employees' job satisfaction and management efficiency need to be reviewed. In the Business Structural Reform Plan, the improvement of these issues is proposed by taking into account a balance of different values so that every employee becomes profit oriented. To this end, in the new merit-based salary system, every employee will be increasingly evaluated on the basis of his/her personal contribution to the overall operating results.

**Obinata:** We have completed a radical personnel reduction by soliciting voluntary retirees. In the future, high work efficiency will be required for those ULVAC employees who remain on the payroll. To achieve a good workplace and job satisfaction, it will be necessary for us to create better worksites.

**Suwa:** An important policy in this context is human resource education. We must develop human resources who can play active roles overseas in promoting the globalization of our businesses such as the extension of overseas production. ULVAC has started developing talented people who can work globally by implementing foreign language learning and foreign training schemes using external educational organizations. Despite the necessity of reducing costs, we intend to continuously focus on human resource education.

**Obinata:** ULVAC boasts excellent technological strength. However, we must better understand the world around us, and we intend to proactively introduce external knowledge in our development and management to help us move forward.

7 Interview with Top Management

# >> Toward a Reborn ULVAC

Facing a significant turning point in management strategies, the ULVAC Group is carrying out the Business Structural Reform Plan toward consistent growth to move forward aggressively as a reborn ULVAC.

Increasing Corporate Value through the Business Structural Reform Plan

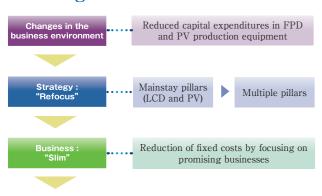
## Refocus



Strengthen

The ULVAC Group formulated the Business Structural Reform Plan, which includes measures to ensure profitability and growth strategies, to realize future growth. The plan "Refocus" potential growth fields where high future profits can be expected from increased revenues; "Slim" through the shift of corporate assets and personnel to growth fields together with the trimming of fixed assets; and "Strengthen" competitiveness and the business structure. The ULVAC Group is determined to innovate its businesses, organizations and employees' mind-set through radical reforms to increase corporate value as a reborn ULVAC. Furthermore, as a basic management strategy, we promote the 3S+1D campaign, which advocates "Difference" in addition to cost-reduction efforts via "Simple (Simplification)," "Same" and "Standard."

## Change in Business Model





Make radical changes in the system and mind-set

Develop Dantotsu products that are differentiated in terms

# Change in production system 3S and globalization

#### Change of mind-set (reform)

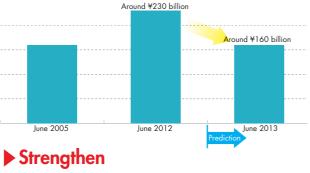
- · Profit oriented · Quick and detailed customer responses Improve the precision of predictions such as disclosure
- Improve the "sense of self" of Group companies and individual employees

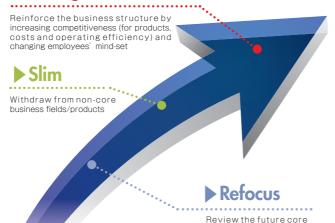
## ▶ Good results from the First-Round **Business Structural Reforms**

In fiscal 2011 the targeted results were achieved by reviewing and streamlining processes as first-round business structural reforms.

- Number of personnel reduced by soliciting voluntary retirees: 879 persons (versus the target of 700 persons)
- Fixed asset disposals and impairment: ¥12 billion (versus the planned ¥11.2 billion)
- Reduction of fixed costs: ¥15.9 billion (versus the planned ¥15.5 billion)

#### Reduction of the break-even point (visual image)





# Second-round: Change in Business Structure through the "Boost Competitiveness" and "Way of thinking"

## **▶**Boost the competitiveness of products

As part of the "conversion from a large-pillar dependent business structure to a multi-pillared one," ULVAC endeavors to develop Dantotsu products\* to enhance its competitive edge.

"What are the "Dantotsu products" ?
ULVAC products differentiated from those of competitors, with a firstor second-ranked market share, or a gross margin of at least 35%, are categorized as leading-edge products.

#### Major Action Plan

- Develop commodities that are differentiated in terms of performance.
- Develop technologies ahead of other companies.
- Respond faster to customers by reviewing the current sales system and incorporate the results in new product development.

## ► Reinforcement of Cost Competitiveness

We endeavor to reduce costs via "Simple," "Same" and "Standard." The Company has newly established the "Design Concept Renovation Headguters," the "Global Production Management Headquaters" and the "Cost Reduction Management Headquaters." We intend to strengthen our cost competitiveness by increasing the overseas production ratio.

#### Maior Action Plan

- ▶ Endeavor to increase the overseas production ratio to 50% or more within three years.
- Establish the "Design Concept Renovation Headquters." the "Global Production Management Headquaters" and the "Cost Reduction Management Headquaters" beyond the framework of the divisions/product groups.
- A poster to encourage the 3S+1D campaign throughout the Group



## **▼** Best Standard Product of the Year Award

During fiscal 2011 (from July 1, 2011 to June 30, 2012), the Company started an internal initiative to grant the "Good Standard Products of the Year Award" to certain products that have met predetermined criteria and contributed to improving operating results for the year.

The "Best Standard Product of the Year Award" is selected from among the "Good Standard Products of the Year Award." The award is presented at the production technology reporting meeting of the ULVAC Group companies. The staff in charge of the best standard equipment delivers a commemorative speech at the meeting. The presentation is used in internal and external PR activities to disseminate the technological strength of the overall ULVAC Group.



ULVAC φScan-type X-ray photoelectron spectroscopy analyzer PHI5000 Versa

Feature: Business Structural Reform Plan

# >> Toward a Reborn ULVAC

# **▶** Business Structural Reform Promoting System

The Global Production Management Headquaters, the Cost Reduction Management Headquaters and the Design Concept Renovation Headquaters will cooperate beyond the organizational framework of the divisions to achieve the targeted gross profit to net sales figures for the respective equipment models and link their efforts to improve the companywide profit margin. Moreover, we will enhance Group governance and make quick and flexible organizational preparations by segregating the management decision-making and business oversight functions from the execution function.

Headquarters Managers Conference

# 3S Promotion Conference



## Global Production Promotion Conference







Processing Center Subcommittee Global Procurement

## General Manager of the 3S Promotion



Hideyuki Odagi

Achieve the targeted gross profit to net sales ratio for the respective equipment models

by promoting the 3S campaign.

We aim to significantly improve the gross profit to net sales figures for all the targeted equipment models at the respective divisions by taking advantage of the 3S promotion methods, that is, simplification, commonization and standardization. We will formulate policies/strategies and road maps to select the targeted models and promote the 3S at the 3S Promotion Conference. We will also check the progress and review the relevant operations at the conference. To achieve the targeted gross profit to net sales ratio for the respective equipment models, we will review drawings to achieve simplification, commonization and standardization. Furthermore, we will participate in the design review (DR) at each division and proactively offer advice and proposals to accel-

## General Manager of the Global Production



Masasuke Matsudai

Increase the overseas production ratio and achieve the targeted gross profit to net sales ratio by promoting global production.

We intend to significantly improve the gross profit to net sales figures for all the targeted equipment models at the respective divisions to raise the overseas production ratio of ULVAC products to 50% or more in three years by promoting global production. We will formulate policies/strategies and road maps to select the targeted models and promote global production at the Global Production Promotion Conference. We will also check the progress, resolve various issues and review, if the need arises, our relevant operations at the conference.

To achieve the targeted gross profit to net sales ratio for the respective equipment models by raising the overseas production ratio, we will take measures such as setting up large production plants in China, reducing fixed costs for manufacturing and other manufacturing costs, decreasing the amount of transporting equipment, and preparing drawings that are compliant with local specifications.

General Manager of the Cost Reduction



Hiroyuki Hirano

Achieve the targeted gross profit to net sales ratio for the respective targeted equipment models by promoting cost reduction.

We intend to significantly improve the gross profit to net sales ratio for all the targeted equipment models at the respective divisions by effectively taking advantage of various cost-reduction methods. We will formulate policies/strategies and road maps to select the targeted models and promote cost reduction at the Cost-Reduction Promotion Conference. We will also check the progress and review, if need arises, the relevant operations at the conference. All kinds of cost items regarding procurement costs (for manufactured goods and purchased goods), distribution costs and labor cost could be on the agenda at the conference sessions to help achieve the targeted gross profit to net sales ratio for the respective targeted equipment models. In addition, we will conduct the following cost-reduction activities: enhance procurement efficiency, improve our cost estimating capacity and restructure our global purchasing system.

#### >> Way of thinking

The ULVAC Group aims to reinforce its business structure and increase corporate value by promoting a "change of mind-set" as the cornerstone of its structural reforms. The primary initiative is to have every employee focus on improving profitability in all routine activities. The basic strategy, which is called the "3S+1D" campaign, is one such reform. The ULVAC Group has substantially changed its sales system with measures such as the establishment of ULVAC EQUIPMENT SALES and the introduction of PMs to provide customers with guick and detailed responses. Meanwhile, we intend to solidify our organizations so that they can cope with drastic changes in the economic environment while we are improving the precision of our predictions such as disclosure information through enhanced precision control. Furthermore, we aim to create vigorous organizations where employees can demonstrate their originality by allowing Group companies and our employees to improve their "sense of self."

#### **Major Action Plan**

- ▶3S+1D campaign
- Change the sales system to ensure quick and detailed customer responses.
- Change the management system and prediction methods to improve the precision of predictions.
- Create an educational or cultural environment that enables employees to improve their individual "sense of self."



\*What is PM?

PM refers to Product Manager (PM) groups, which consist of employees as technical specialists. The PM groups are established by abolishing the conventional divisions to realize a new sales system by product

## ✓ Classified stock issued for capital reinforcement

For the purpose of early reinforcing our financial structure and ensuring the funds necessary for our reforms in advance, the issuance of classified stock was resolved by the ordinary general meeting of shareholders held on September 27, 2012.

Through the issuance of classified stock via allotment to a third party\* for a total amount of the issued shares of \15 billion, we will be able to early reinforce our financial structure three years ahead and ensure the funds necessary for our reforms in advance.

Alottee: Japan Industrial Solutions No. 1 Investment Limited Partnership

#### Features of the classified stock issued

- ▶ Designed to minimize the dilution effect of our issued shares by taking into account the interests of existing shareholders
- Intended to avoid a conversion into common stock through a cash redemption in the full amount, to the extent reasonably possible
- ► Early reinforcement of the financial structure: "Three years ahead"

#### Three years ahead

	As of the end of June 30, 2012	As of the end of June 30, 2013 (after issuance)	As of the end of June 30, 2015 (after redemption)	
Equity ratio	14.8%	20.6%	22.1%	
Debt Equity (DE) Ratio (net)	2.48%	0.87%	0.74%	

Note: The above projections are estimated based on a medium-term forecast, and the figures are not a guarantee of actual results to be achieved by the ULVAC Group.

11 Feature: Business Structural Reform Plan

## Feature : **Technology**

## IGZO Technology That Contributes to Next-Generation Displays

In recent years, smartphones and tablet terminals have been disseminated widely. The 3 needs of "ultra highdefinition" "low power consumption" and "smooth movements on the touch panel" are the key factors in choosing mobile terminals, IGZO has attracted global attention as a new material that satisfies all these requirements. IGZO has garnered attention as an essential material for thin-film transistors (TFTs) for displays, control and global panel suppliers are competing aggressively to develop IGZO-based displays.

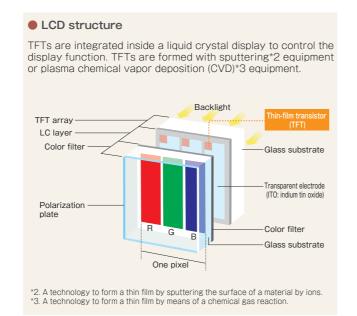


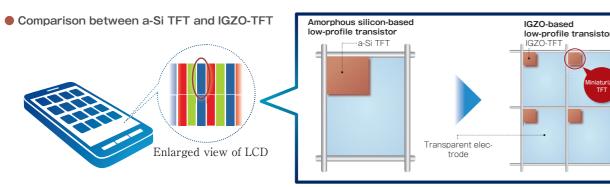
## ► IGZO's Features

IGZO is an amorphous oxide semiconductor in which indium (In), gallium (Ga), zinc (Zn) and oxygen (O) are mixed. It was invented in 2004 by the research group of Professor Hideo Hosono et al. at the Tokyo Institute of Technology. IGZO has mobility\*1 more than 20 times faster than that of conventional amorphous silicon (a-Si). This feature improves TFT performance, resulting in further miniaturization of TFTs. As part of a transparent electrode that passes a light ray from the backlight is enlarged if the TFT size becomes compact, sufficiently bright pictures can be enjoyed even if the backlight brightness is reduced. In addition, as the number of pixels may be increased compared with conventional a-Si, higher-definition displays are realized. Furthermore, as power consumption can be reduced, its adoption is seen as a practical technology that could enable battery life extension for smartphones and other

At present, many panel suppliers are advancing their research and development not only for the IGZO-based LCDs but also for IGZO's application to organic EL.

\*1. Ease of transfer of electrons inside semiconductor materials. The higher the electron transfer rate, the faster the response rate, and high currents can be obtained when low voltage is applied to the materials.

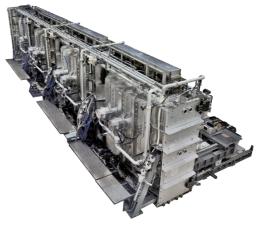




## >> ULVAC and IGZO

ULVAC has engaged in basic research on IGZO for more than 5 years and has supplied sputtering equipment, sputtering target materials and processes for IGZO to most panel suppliers in an integrated manner, gaining a high market share for IGZO.

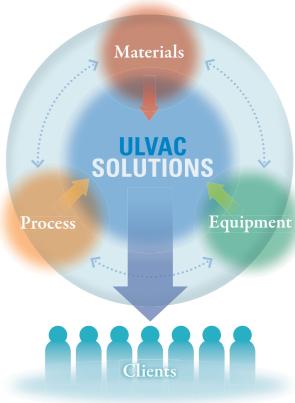
In addition, ULVAC has established a low-resistance Cu wiring process as a barrier metal material for IGZO-TFT. This method allows us to provide inexpensive and easyto-process Cu alloy targets without conventional Mo or Ti-based materials



▲Sputtering equipment for IGZO: SMD Series

Glass substrates are transferred in a vacuum chamber to form TFT wiring

## IGZO Solutions of the ULVAC Group





#### IGZO target set on the equipment

## World's first 3m large target developed

ULVAC succeeded in developing large (about 3 m long) IGZO target materials for the first time in the world. For conventional targets, the deterioration of TFT characteristics was unavoidable due to the possible interfusion of particles or foreign matter through joints because those targets had a structure of 6 small targets spliced together. ULVAC developed large targets that offer radical solutions to these problems, enabling the formation of homogeneous film on a large-area substrate.



## Iunya Kivota General Manager, Research Division No. 1, Institute for Super Materials

IGZO solutions provided by the ULVAC Group, including sputtering equipment, target materials and processes for IGZO, have the possibility of becoming the leading-edge products of the future. ULVAC target materials have been highly acclaimed by clients worldwide, and the verification process for mass-production application has started. To meet the stringent specifications requested by our customers, the Institute for Super Materials continually seeks promising, leading-edge technologies including new materials that have an excellent electron transfer rate superior to IGZO.



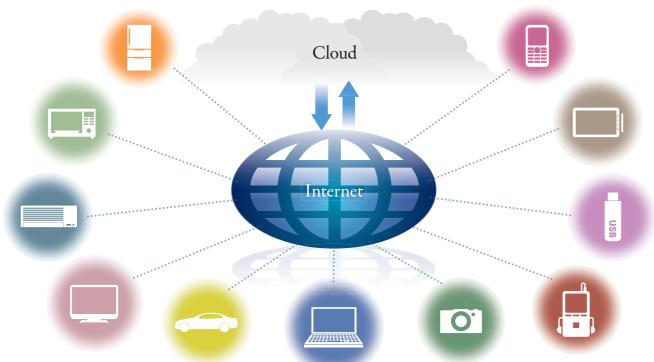
13 ULVAC Group's Technology

## Feature : **Technology 2**

## Development of Next-Generation Memory to Support the Cloud-Computing Society

Development of Next-Generation Non-volatile Memory to Support the Cloud-Computing Society Technology development is required to help us resolve various problems in the society. The same goes for ULVAC products, which are quietly playing a role in our daily life. We, ULVAC, believe that it is important to appropriately understand the performance differentiation and customer needs. In this section, we introduce the non-volatile memory technology for mass production which supports the cloud computing society.

## Cloud Computing Network Diagram

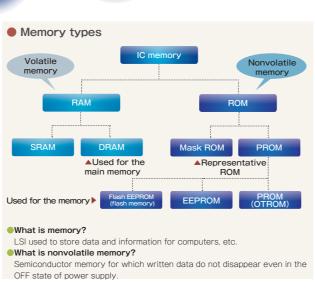


Currently, NAND flash memory is most commonlyused non-volatile memory, which is used in mobile phones, digital cameras, digital audio players, USB flash drive, electrical appliances, and automobile parts and

Given the anticipated expansion of the information traffic, operation speed and lower power consumption of conventional storage memory including hard disk drives and NAND flash memory are insufficient. Therefore, the development of new next-generation non-volatile memory, which has large capacity, runs at high-speed and consumes lower power, is actively ongoing

Technology of next-generation nonvolatile memory is divided into two major types. The one is "3D NAND flash", which is based on the operating principle of conventional NAND flash. Its 3-dimensional structure realizes low cost and large capacity memory.

The other technology is "Emerging non-volatile memory", which is based on a completely different operating principle from the one of NAND flash memory. Since this new memory realizes large capacity, high-speed, and low power consumption, it is anticipated that it can only be replaced for NAND flash but be applied to the storage-class memory which can provide an intermediate step between high-performance DRAM and cost-effective NAND flash.

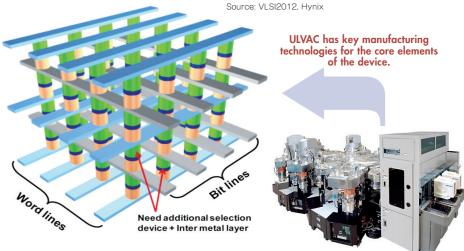


We are highly committed to contributing to the cloud society by developing the mass production technology and providing the manufacturing equipment for the practical application of these next generation nonvolatile memory.

## Next-Generation Memory and ULVAC's Role

ReRAM, in particular, has attracted attention among the next-generation nonvolatile memory types. Compared with other nonvolatile memory types, it boasts such features as high speed and low energy consumption.

ReRAM has the potential to replace NAND Flash Memory, which seems to have reached a technological limit. ULVAC's tool is capable of stably mass-producing the core devices for ReRAM.

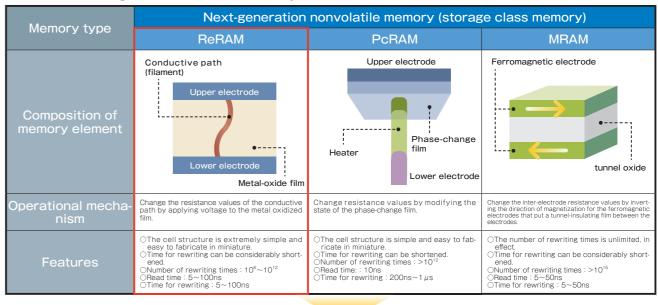


#### ▲ ReRAM' s device structure (Cross-point type)

A high-density compact device structure becomes possible by stacking four- or five-level memory layers compared with the simple plane device structure.

Sputtering and CVD deposition system: ENTRON—EX, EX-2

#### Features of next-generation nonvolatile memory



These types of next-generation nonvolatile memory address the needs of the cloud-computing society, for which energy conservation, large capacity and high-speed access are required.

## VOICE

## Koukou Suu General Manager of the Institute of Semiconductor & Electronics Technologies

Given the expansion of cloud computing services, the silicon semiconductor technology that props up such services is a promising technology. In particular, ULVAC aims to develop and commercialize leading-edge products that would address large-capacity, high-speed telecommunications and energy conservation in information processing operations, which are indispensable for the cloud-computing society. In addition, the ULVAC Group endeavors to meet customer needs with its group-wide efforts by taking advantage of next-generation technologies not only in Japan but also overseas.



15 LUVAC Group's Technology

# ▶ Improve the ULVAC Brand

## Our goal is safe, confidence-inspiring products

Almost all production facilities of the ULVAC Group have now completed the ISO 9001 certification procedures for quality management systems. We are producing high-quality products around the world at our many production factories and joint ventures.

To maintain the "ULVAC quality," we have established ULVAC brand standards and a certification system, and have a strict check system in place for the start of production and type approval.



We are committed to improving the Quality of our work to provide products and services that satisfy our customers.



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

## Making Rapid Improvements Based on Quality Information

#### Our claim management system

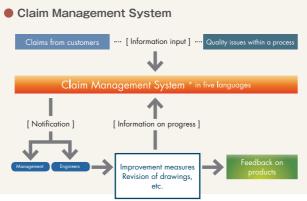
All information on quality issues related to ULVAC and its production facilities is managed comprehensively by the Claim Management System, enabling the information to be shared by the Group. The system identifies persons in charge within the process at the Chigasaki Head Office/Plant or our manufacturing assignees and also notes the date. Any customer complaints after product delivery are also processed by the system. If a serious safety issue arises, the system automatically

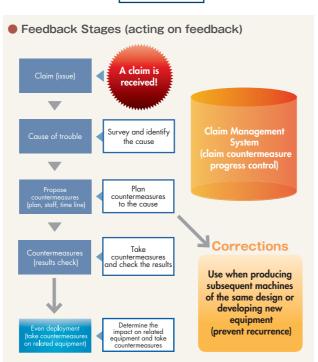
sends out the information to all management personnel according to the level of risk of each claim. If the situation is particularly serious, the information is labeled a "Critical Claim" and reported at the monthly business meeting (a regular monthly meeting in which the President and division managers participate). where responses are discussed and determined via a top-down approach



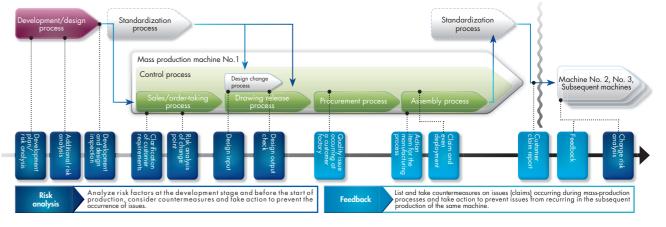
#### Quality control system for customer satisfaction and confidence

Risk analysis and feedback are two fundamental concepts of ULVAC's quality management system. Following the flow that begins at the development and design stage, we identify risks, identify countermeasures to them on a "risk analysis sheet" and work to prevent quality issues. In the event of an issue occurring after the production processes and shipping, we write up a feedback list based on data collected from our Claim Management System and feed back that information at each stage. We also run a stringent quality check on such issues during the quality inspection prior to shipping. In this manner, we aim to be timely providers of products that reflect the most up-to-date technology so that we can promptly support our customers' production activities.





#### Quality Assurance System Concept in Relation to Development and Design Flow



## Globalization of the ULVAC Brand

Based on a checklist, the products of the ULVAC Group are assessed with respect to their model registrations; clarification of commercial distribution; compliance with the standards of ULVAC trademarks; management system for quality, environment, safety, hazardous substances, etc.; protection of intellectual property rights; and technology leakage preventive measures, among others. After this assessment, the products

are then examined and approved by the Board of Standing Directors and Auditors. Only the products that satisfy all of these criteria are permitted to be manufactured, produced and sold. Such products are maintained and managed using the product, production and sales matrix for ULVAC Group products. Such a strict system allows us to distribute "ULVAC Quality" around the world, thereby supporting our globalization.

## Department Redefined to Operate Independently at Several Global Bases

As for quality inspection and quality system operations, ULVAC allows the quality assurance department to operate independently at several ULVAC operating bases

Quality inspections at ULVAC, Inc., ULVAC TOHOKU, Inc., and ULVAC KYUSHU CORPORATION (all of which are in Japan), ULVAC KOREA, Ltd., ULVAC TAIWAN INC. and ULVAC (China) Holding Co., Ltd., were conducted pursuant to the globally unified ULVAC standards by ULVAC-certified

quality inspectors in accordance with the quality control and inspection systems independently established at the respective operating bases. These Group companies conduct internal audits independently with regard to quality-related agreements for the outsourcing of production and have established a collaborative system through which the Company and related companies can address mutual issues.

—Reform of Our Intellectual Property Rights Strategy and the Results of Our Global Intellectual Property Rights Strategy-

# ULVAC's Global Intellectual Property

#### ■Applications in fiscal 2011

During fiscal 2011, ULVAC revamped its intellectual property rights strategy to focus on acquiring "powerful intellectual property rights" that will help us enter new businesses and or expand existing businesses and "high-quality intellectual property rights that can be licensed to other companies. Previously, our strategy focused on increasing the number of intellectual property rights for the main target of "protection of proprietary technologies." However, in view of the rapid globalization of markets and the current conditions of ULVAC, we considered it necessary to take an anticipative strategy, according to which we can acquire powerful intellectual property rights that will help us enter new businesses and/or expand existing businesses while excluding other companies or high-quality intellectual property rights that can be licensed to other companies. The number of domestic patent applications decreased to 80% from the previous year to 277, and the number of foreign patent applications decreased to 54% from the previous year to 90. These results reflected the reform of our intellectual property rights strategy and the research results are protected more effectively than before. In effect, licensing was offered for some ULVAC patent applications from other companies

#### ■Results of our global intellectual property rights strategy

As the number of markets has increased recently, ULVAC has strengthened its intellectual property rights related activities in East Asian countries (in China and South Korea

particularly) over the past few years. In South Korea, along with the establishment of an institute, we placed a priority on streamlining management rules for intellectual property rights and the application and rights-acquiring activities. In China, as in South Korea, we were active in promoting the application and rights-acquiring activities to cope with the market expansion. In addition, to prevent issues related to counterfeit products, we filed design applications aggressively. As a result, our global intellectual property rights strategy proved fruitful, thereby increasing the number of intellectual property rights (patent and design rights) established in South Korea and China in the fiscal

#### Number of intellectual property rights registered in South Korea and China (Patents and designs)



18 17 ULVAC Group's Technology

# Quality Improvements to Pursue with Suppliers

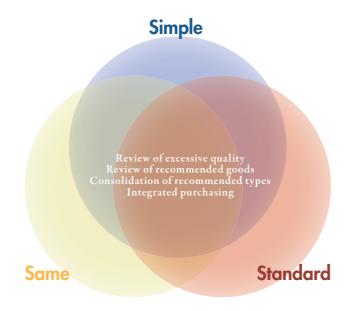
## Promoting the 3S, Global Production and Cost- Reduction

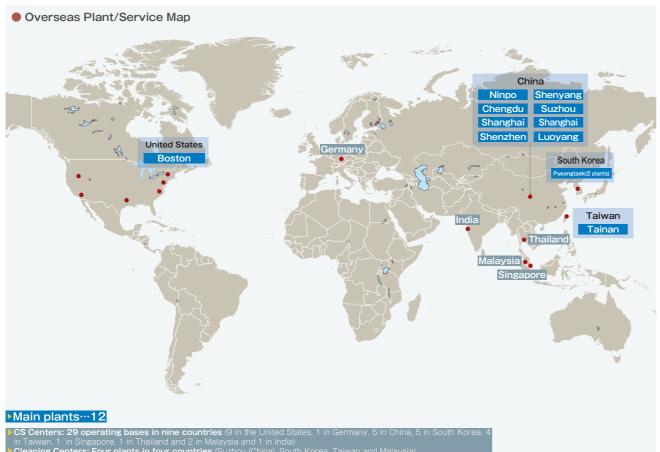
In fiscal 2012, ULVAC will create co-existence and co-prosperity relationships with suppliers by taking various measures to promote our three major activities (3S, Global Production promotion and Cost-Reduction promotion) and address the improvement of ULVAC's overall profitability.

#### 3S (acronym of Simple, Same, Standard)

Through the 3S (acronym of Simple,Same,Standard) activities, we intend to review functions and types for all parts used by ULVAC, restrict the use of special specifications (Simple), select standard parts/components of our suppliers(Standard) and recommend adopting common parts of which use is not limited only to certain divisions/equipment models (Same). With these procedures, we plan to consolidate our various parts/components, and implement 3S policy for parts. Thus, our procurement will be integrated by increasing the order quantities of recommended parts.

The procurement department will actively engage in the production activity of the business divisions and proactively commit to anticipating 3S activity in the pre-process stage, as well as to post-process activity in the course of manufacturing ( "monozukuri").





## Global production Increasing the procurement capacity of the China Procurement Center regarding" made in China" parts and expanding global purchasing with an eye on post-China moves

Given the concentration of investments in China from domestic and overseas customers, it has become increasingly important to enhance our local purchasing capability. Accordingly, in addition to the conventional cost-reduction activities conducted by the respective Group companies, we aim for strong and flexible purchasing by gathering suppliers information and know-how on quality improvement of the 16 Group companies in China. To this end, the China Procurement Center, which was established in

2011 within ULVAC (SUZHOU) Co., Ltd., an equipment production company, was transferred in July 2012 to ULVAC (China) Holding Co., Ltd., which controls all the Group companies in China.

Furthermore, we intend to promote optimum purchases globally including the ASEAN countries, Europe and the United States while taking into account various fluctuation risks through collaboration with Group companies throughout the world, in addition to the cooperation of our Chinese Group companies.

#### Cost-reduction

In addition to the 3S and global production, we will review the purchasing method of parts to assure systematic planned production activity for our suppliers.

Also ,we will conduct cost reduction activities through review of the our business content and radical improvement by rejection of useless operation.

## >> ULVAC Quality Governed by Certified Suppliers Satisfying Our Supply Certification System

#### **Enhancement of our Supplier certification system**

ULVAC's supplier certification system became operational domestically in fiscal 2010. The system aims to ensure all procured products are of the same quality for all deliverables from suppliers worldwide. In fiscal 2011, the non-conformance rate of all deliverables successfully declined below that of the domestic quality standard of the supplier certification system. This favorable result suggests that the groupwide quality improvement activities at all the related organizations, which are production management, quality assurance, acceptance inspection and procurement departments, led to good understanding by and the sincere cooperation of our suppliers. Meanwhile, at overseas operating bases of the ULVAC Group, including ULVAC KOREA, Ltd., ULVAC TAIWAN INC. and ULVAC (SUZHOU) Co., Ltd., similar quality improvement activities, as well as the evaluation of suppliers by these Group companies, have already begun. Furthermore, as part of the improvement of the operations requested in the intended structural reforms, we will promote further simplification of the acceptance inspection procedure. Under the supplier



June 2012

certification system, the quality of parts supplied by

the certified suppliers will be improved, making the

procedure simpler than before. We intend to reduce the

non-conformance rate through improvement activities



Quality inspection at a supplier in China

0.0 June 2010 June 2011

19 UVAC Group's Technology



We would like to introduce the ULVAC Group's global environment contribution measures such as the environment-friendly new Head Office building of ULVAC TECHNO, Ltd., and the Feed-in Tariff (FIT)—a fixed-rate renewable energy purchase agreement, which was implemented in July 2012.

\* Tanbo (rice field) Project in its third year near Namegaya Chigasaki, Kanagawa, Japan



## ULVAC Has a New Structure to Achieve Environment-Friendly and Safe Operation.

Given the growing environmental awareness of the public triggered by the accidents at nuclear power plants, the balance between energy issues and economic stability is of increasing concern.

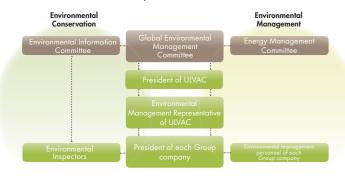
The ULVAC Group, which operates with vacuum technologies as its core strength, continues to offer environment-friendly products with a focus on energy saving and environmental impact. Each company of the ULVAC Group has been developing business activities to achieve energy saving, resource saving and environmental conservation in ULVAC products, finished products made by our customers and throughout ULVAC's manufacturing process.

# Enhanced Environmental Management of the ULVAC Group

To address its global production system, the ULVAC Group enhanced its environmental management system, establishing the Global Environmental Management Committee in 2010. This stronger system now covers not only domestic but also overseas Group companies.

The production and recycling processes for equipment and materials naturally involve certain risks of environmental

 Environmental Management Structure of the ULVAC Group



#### Environmental Philosophy

Recognizing that environmental conservation is one of the highestpriority challenges facing humanity, the ULVAC Group has committed itself to the conservation of the Earth's natural environment and is making contributions toward society's environmentally sustainable growth and development in all business activities.

• Environmental Measures of the ULVAC Group







Energy saving, resource saving and environmental conservati throughout ULVAC's manufacturing process

pollution. To reduce such risks, in the new installation, maintenance, change or closure of environmental facilities, any involved risks are double-checked from the perspectives of both environment and safety.

In addition, we share information on environmental risks through cross-sectional activities led by the Global Environmental Management Committee. We have also been

Environmental Management Committee

monitoring safety at fixed points within our plants in order to prevent serious environmental accidents.

• For more details on the ULVAC Group's environmental initiatives, visit the URL below.



http://www.ulvac.co.jp/csr/

## Energy Saving, Resource Saving and Environmental Conservation of Our Finished Products

ULVAC provides cutting-edge technologies for realizing the use of natural energy, energy saving, resource saving and the reduction of environmental impact. Among our proprietary innovative cutting-edge products with high market shares are production equipment for solar batteries, LEDs, LCDs, thin-film lithium batteries, condensers for hybrid cars and high-density magnets. Though there may be few opportunities for consumers to see our equipment firsthand, our products play important roles in our daily life environments. In addition, we developed new energy generation technology using a more than 70°C temperature difference and more than 50L/min. flow volume, our efforts and results of which were aired on TV. Our technology for plastic automotive glass for lightweight and higher strength was partially applied to practical use. Furthermore, our quick charging systems for electric vehicles, which are innovative solutions combining solar and storage batteries, have been fully installed throughout Japan.

#### Energy Saving, Resource Saving and Environmental Conservation of ULVAC Products

Aiming to reduce the environmental impact of various products of the ULVAC Group, we are continuing improvements together with the customers who use our equipment to enhance efficiency by saving energy, reducing weight and improving productivity. Such efforts, however, would fail if the products developed by our proprietary technologies adversely affected the environment. The ULVAC Group manages the chemical substances used in the components of the equipment that it manufactures. The Group also is promoting a campaign to discontinue the use of RoHS-designated substances.

#### Energy Saving, Resource Saving and Environmental Conservation throughout the ULVAC production process

The ULVAC Group has implemented some new measures since the previous fiscal year.

To prevent environmental, occupational and product accidents, we decided to integrate environmental and safety management. Previously, each department managed environment and safety on its own. By paying attention to details, we could reduce serious accidents. Looking ahead, however, to address increasingly diverse

and complicated operations, we need more professional and broad perspectives and must enhance effectiveness to pursue zero accidents through comprehensive management of environment and safety

②In the fiscal year under review, we began an environmental audit (inspection) at each Group company. Under this new system, the top management of each Group company or plant provides direct guidance to improve environmental management. Previously, the ULVAC Environmental Management Section conducted environmental monitoring at each Group company and department, aggressively improved facilities and significantly reduced the number of accidents and near accidents. To improve each Group company's awareness of environmental improvement and maintain and enhance environment-friendly manufacturing and other operations, we have now shifted to each Group company's independent initiative in environmental management.

As part of such reform, we launched the Global Environmental Management Committee. At its meetings, attended by the president of each company of the ULVAC Group worldwide, each company's environmental management status is reported and issues are discussed as necessary.

Although each Group company conducts voluntary and independent environmental management, the parent company ULVAC, Inc., is continuing efforts to provide advice and guidance as necessary to prevent environmental accidents. The ULVAC Group plans to conduct more "visible" energy management. Specifically, we will install electricity-usage monitors to accurately monitor electricity usage volume and reduce energy use. At our ULVAC Head Office and Plant in Chigasaki, we expanded a solar energy generation system to use natural and renewable

The ULVAC Group will continue efforts as a company to contribute to the environment with its innovative technologies.



Director and Senior Executive Officer n charge of Environmental Management

Yoshio Sunaga

## Toward Reduction of Waste Volume by the Segregation of Waste

The ULVAC Group had promoted waste management measures mainly to recycle and reduce waste volume and waste treatment costs. In fiscal 2011, the Group added activities to convert waste to resources with some value. Waste is roughly classified into plastic, metal, cardboard boxes and paper. Although most metals and cardboard boxes had been converted to useful resources, that was not the case with plastic and paper. To address this issue, in fiscal 2011, we decided to do something about the 86 tons of paper waste (excluding confidential documents) disposed at our ULVAC Head Office and Plant in Chigasaki. We reviewed our waste segregation method and decided to turn wastepaper into a useful resource and segregate paper waste that was mixed in with plastics.

In fiscal 2012, we will aggressively promote waste segregation and monitor how much waste plastic is being reduced and how much paper is being turned into a useful resource. Although the ULVAC Group has been promot-

ing recycling from the perspective of environmental conservation, in the future we will promote not only simple recycling but also converting waste into resources with some value for reuse, thereby reducing waste volume.



21 ULVAC Group's environmental initiatives



## ✓ Inaugurated a New Environment —Friendly Head Office Building of ULVAC TECHNO, Ltd.—

#### Inaugurated a new Head Office building of ULVAC TECHNO, Ltd., in Chigasaki, Kanagawa, Japan

To enhance operational efficiency, in January 2012, a Group company, ULVAC TECHNO, Ltd., relocated its Head Office to a new building in Hagisono, Chigasaki, Kanagawa, Japan. The new building is equipped with energy- and resource-saving measures. Thirty-seven storage heat pumps are used for air conditioning to reduce electricity use during the daytime peak hours. thermopane windows are used for heat shielding and insulation to reduce the air-conditioning load. In addition, the building has 988.9 m2 of rooftop greenery for insulation and scenery. We also introduced heatpump-type energy-saving vending machines. We are aggressively adopting eco-appliances (Carbon Footprint System) for the break room.

We will inspect and review the results of these energyreduction measures and effectively use the results to further reduce energy use.

#### Chigasaki CS Center, Head Office of ULVAC TECHNO, Ltd.

Address: 2609-5 Hagisono, Chigasaki, Kanagawa Construction period: Started in January 2011 and completed in November 2011 Building: 4F steel frame

(Footprint: 4,022 m<sup>2</sup>, Total floor area: 12,662 m<sup>2</sup>)





988.9 m<sup>2</sup> of rooftop greenery

Feed-in Tariff (FIT) —a fixed-rate renewable energy purchase agreement— of ULVAC, Inc.

ULVAC, Inc., which has engaged in the development of solar battery manufacturing equipment since the 1970s', has been aggressively developing solar battery manufacturing equipment, technologies and materials. Collaborating with customers, we have engaged in joint efforts to improve mass-production technologies for chemical compound solar batteries for these years.

Within the Head Office and Plant in Chigasaki, Kanagawa, in 2004, we started to install solar power generation facilities, at which approximately 100 kWh per day is generated and used inside the Head Office and Plant. We plan to raise the power generation volume to approximately 300 kW.

This year, the Feed-in Tariff (FIT)—a fixed-rate renewable energy purchase agreement—was concluded, which is sure to promote the introduction and dissemination of renewable energy in Japan. It may give Japan an opportunity to again become a leader in solar energy generation. The ULVAC Group is reinforcing its power generation facilities and seeking certification for those facilities by meeting the Renewables Portfolio Standard (RPS) under the "Special Measures Law Concerning the Use of New Energy by Electric Utilities"

By voluntarily introducing this business model, we would like to contribute to disseminating solar power generation facilities.

ULVAC will continue to offer solar battery manufacturing technologies to society, promote technological development of next-generation solar batteries and disseminate solar power generation facilities, thereby contributing to the global environment.



Solar power generation facilities within the Head Office and Plant in Chigasaki, Kanagawa

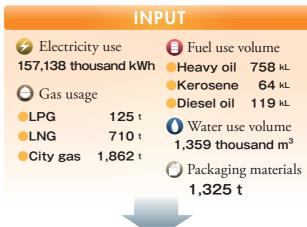
# Environmental Performance of the ULVAC Group

The ULVAC Group has been developing business operations at its Group companies worldwide, of which each is conducting aggressive activities to save energy and resources for their efficient use. With efficient energy use strongly in demand, the ULVAC Group strives not to waste energy.

#### Transition of the ULVAC Group in fiscal 2011

At the R&D and manufacturing bases of the ULVAC Group, we are promoting energy-saving activities. In the previous fiscal year, the Group reinforced manufacturing at overseas bases, which reduced CO2 emissions and water use in Japan and clearly increased CO2 emissions and water use overseas. Given the domestic situation, where the management of energy use and the reduction of CO2 emissions are increasingly stringent every year, we are gradually shifting to more effective energy use, whereas overseas energy-use management is not yet efficient enough. At the ULVAC Group as well, the importance of its overseas bases is increasing. We will strive for effective energy use at all Group companies including overseas bases.

## Material Balance (ULVAC Group)



## OUTPUT

CO2 emissions

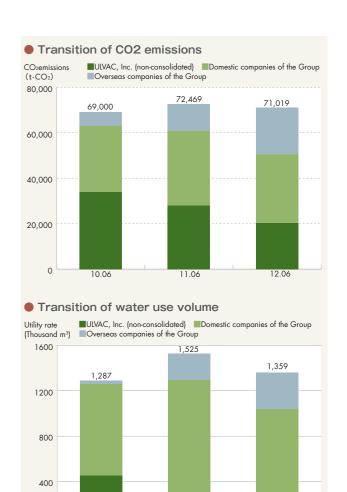
71,019 t-CO<sub>2</sub> Generated by the use of electricity, gas and fuel

Total waste emissions 11.694 t

Volume of useful resources 2.375 t

Recycling ratio ... 4.4%

\*The source of the above data is 37 companies worldwide of the ULVAC Group.
\*The above volume of packaging materials is a total of that at 23 of the 37 Group



23 Environmental Measures of the ULVAC Group



The ULVAC Group sets personnel policies and offers a variety of talent development systems to enable our employees to reach their full potential. This section features the voices of employees, including people in charge of specific operations, describing how these developmental systems work.

## Den and Dynamic Organizations Create Innovative Development

ULVAC's corporate philosophy includes a policy of maintaining a free and open culture. We believe that technological innovation requires a free and open organization. ULVAC's driving force is its corporate culture in which employees can freely generate ideas regardless of position or rank and are free to speak their mind.

#### **Open and Dynamic Organization**

The major business of the ULVAC Group is the research and development of cutting-edge vacuum technologies. The management policies of the Group are Improvement of Customer Satisfaction, Innovative Production Technology, Innovative Product Development, a Free and Open Culture and Enhancement of Corporate Value. Innovative Product Development is achieved through and Innovative Production Technology is derived from Open and Dynamic Organizations. Innovative Products and Innovative Production Technology lead to customer satisfaction and can Enhance Corporate Value.

ULVAC's driving force is its corporate culture in which employees can freely generate ideas regardless of position or age and are free to speak their mind.

#### **Personnel Policies**

ULVAC appreciates an attitude of tackling challenges. Even should a good effort end in failure, the individual is not held to account. This concept applies not only in the R&D department but also in all of our occupational fields. However, in cases where the failure of the trial was obvious from the beginning or the trial was not worth the effort, the person should be held accountable. The value of the challenge is assessed in the planning and result.

ULVAC maintains such basic employment practices as a seniority system and lifetime employment. However, instead of a complete lifetime employment system, we put highly capable personnel in important positions regardless of their age. We also plan to conduct strict personnel performance evaluations to distinguish those who work hard from those who do not and reflect such differences in pay raises.

#### Salary System

ULVAC uses a simple seniority-based pay system

with a simple categorization of salary tiers of officers, management and general employees (those below the management), regardless of academic background, occupational type and gender. Other than the assumption of officers' positions, all employees take a test to determine promotions.

This is based on the belief that excess competition within the company interferes with teamwork, and that if we are to compete with anyone, it should be someone outside the Company. We will maintain the current system for personnel performance evaluation, but we will adopt absolute criteria as an assumption for clear differentiation in a salary raise

#### **Human Resource Development**

ULVAC trains its employees according to an annual plan adopted by our Training Committee. In addition to training by tier, we recommend that all employees take correspondence courses, and we plan to have officers, management and certified professional employees attend lectures outside the Company for further training.

ULVAC wants its employees to improve their skills and gain valuable experience through friendly competition

with people working for different companies in the same industry or people in different occupational types. The feedback and results will be used to further invigorate ULVAC.

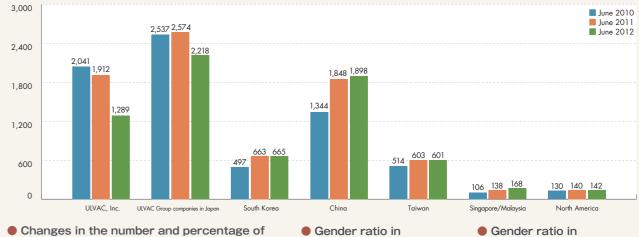


## Personnel Department Tomoyasu Suzuki

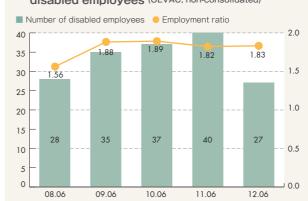
## ► Personnel DataPersonnel Department

Our recent business restructuring led to a decrease of 979 employees in Japan. As the overseas manufacturing ratio increased, the number of employees at overseas Group companies increased by 82.

#### Number of employees working in ULVAC Group companies



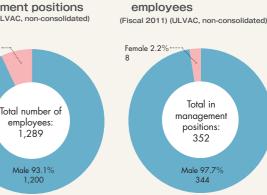
Changes in the number and percentage of disabled employees (ULVAC, non-consolidated)



management positions (Fiscal 2011) (ULVAC, no Female 6.9%

employees: 1,289

Male 93.1% 1,200



TOPICS

# ✓ Roundtable Discussion Meeting Where Employees Share Their Opinions with the Chairman and the President

In January 2011, Chairman Suwa's idea initiated a roundtable discussion among employees, Chairman Suwa and President Obinata. Once a month, some young employees are chosen by lottery and dine with the Chairman and the President in casual wear at a restaurant outside the Company. The informal style has been in place since the first meeting.

The purpose of this roundtable meeting is to provide an opportunity for top management to communicate with young employees, establish a corporate culture where employees can speak their mind, and allow top management to express their thoughts and hear employees' opinions, thereby improving employee satisfaction. Participating employees ask various questions regarding management of the Company and even the private matters of the Chairman and the President, who answer each question sincerely. Feedback from the attendees has included "I got a future tip about how to work well and live well" and "I felt that top management appreciates and

cares about employees. I am glad I joined ULVAC." In addition to such meetings between top management and young employees, in 2012, top management plans to start a similar roundtable discussion with section chiefs and other lower-level management. By creating opportunities for communication between top management and young officers in the lower management tier, we would like to establish a corporate culture

where employees can express their opinions and we can address attendees' problems relative to middle management



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# Roundtable Discussion among Overseas Trainees

# Toward Expansion of Global Business

ULVAC introduced its first overseas training system, for which five employees were selected to receive training in the United States, Germany and Singapore, beginning in August 2011. Reflecting on their experience, we discussed issues related to the expansion of overseas businesses.



## Importance of Communication at Overseas Business Bases



**Suzuki:** Although the overseas training system has been temporarily suspended in fiscal 2012, it will resume in the next fiscal year. We would like to get feedback from new trainees and use that feedback for our future operations. First, please explain where you received training and the content of the training.

**Miyazaki:** I received training at ULVAC Technologies, Inc., in the United States. Before my internship, I had studied English at a language school in Boston for six months.

**Watai:** After studying at a language school in Germany, I worked for ULVAC G.m.b.H. substituting for a person in marketing who took a maternity leave.

Ishikawa: After studying at a language school in Singapore, I worked for ULVAC SINGAPORE PTE LTD. and conducted manufacturing equipment installation operation at a customer's worksite. I was also trained at the Vietnam office.

**Watanabe:** I received training at the same place where Mr. Miyazaki did. After learning English in Boston for

six months, I came back to Japan to switch to a work visa, then returned to the training site and received one month of onsite training.

**Mase:** I received training at Physical Electronics USA, Inc., in Minnesota, United States. After learning English at a local site for three months, I switched my visa to a work visa and I worked on the assembly of components, testing and analyses at the training site for 5 months.

**Suzuki:** How did you feel and what did you learn through overseas training?

**Ishikawa:** I strongly felt the importance of language as a method to convey one's own ideas and opinions to other people and realized the simplicity and convenience of English to converse with people from various countries.

Watai: In Europe, I was often asked to use the local language although English was considered to be the

standard language for business use.

Miyazaki: In the United States, there were so many people from different countries such as people from the Middle East. Their English had strong accents and was sometimes hard to understand.

**Mase:** Although I had anxiety about English conversation







at first, I could eventually talk at my pace without being frustrated, which gave me confidence. The human connections that I have built at the local site are now a valuable asset.

Watanabe: I learned a lot from the American people such as their lifestyle, in which they effectively work and enjoy their private time,

and their good self-expression skills.

#### Essentials for Business Globalization

**Suzuki:** What did you observe by looking at ULVAC from outside Japan?

**Ishikawa:** At our overseas locations, requests and communications from Japan tend to be simplified and the local staff struggle with how to address them. I believe such communication needs to be more accurate.

**Watanabe:** Because design drawings sent from Japan are written in Japanese, the Japanese staff were handling them at my training site. I think such drawings should be standardized in English.

Mase: Some e-mails regarding financial matters sent from Japan to my training site were written in Japanese, and I was asked about the content by local staff. At the training site, I was in charge of manufacturing equipment at the Advanced Electronics Equipment Division. Concerning the drawings, the framework of the drawings at ULVAC was different from that at the training site, which caused difficulty reconciling such drawings.

**Suzuki:** What will be necessary for ULVAC to promote business globalization in the future?

Miyazaki: At my training site, the system used for mate-



rial management and other purposes was antiquated. I believe we should have a common Group-wide system for better communication between ULVAC and group companies.

Watai: With regard to estimates for global procurement, it takes time for a local corporation to handle such matters due to a shortage of personnel. I think it may be necessary for the staff in Japan to directly contact overseas suppliers. Also, in our production process, we will need to address CE marking

for smooth distribution in European markets.

Ishikawa: At my training site, the engineers' skill sets were not strong enough. To eliminate the differences in skill level among local corporations, I think a global personnel measure would be effective such as personnel transfers across the Group.



## Reflect the New Awareness from Training in Future Business Activities.

**Suzuki:** Lastly, please talk about the change of concept that occurred to you through the training.

**Ishikawa:** Fast-growing Singapore exhibits high energy and vibrant enthusiasm, which makes me feel restless and hungry for hard work.

**Watai:** My self-initiative improved significantly not only in sales activities but also in communication with local corporations. When I attended an academic meeting, I actively talked with people from other countries.

**Miyazaki:** Through communication with overseas customers, I felt the urge to increase my vocabulary of technical terms.

**Watanabe:** Although opportunities for me to directly use English and other training experience are decreasing in my field of patent-related operations, I would like to continue to improve my skills for the future.

**Mase:** At my training site, the employees had a high awareness of profitability, which made me think about the marketability, profitability and cost-reduction of the

development projects with which I am involved.



Suzuki: Thank you for your valuable opinions and feedback from your experience. Toward the expansion of the global business of the ULVAC Group, we would like to reflect on your opinions for the Group's future educational structure and other improvements.

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# CSR Awareness Survey toward a Rewarding Company

CSR Awareness Survey using ULVAC's own index - ULVAC Precious Index and Average (UPIX)

We conducted the CSR Awareness Survey to ascertain employees' level of awareness of CSR. We intend to promote CSR activities based on the survey results.

#### Report of the CSR Awareness **Survey Results**

To survey ULVAC employees' CSR awareness, we conducted the CSR Awareness Survey, a Web-based guestionnaire. The guestionnaire was answered by 1,036 out of 2,463 employees (a participation ratio of 42.1%), of which we tallied valid answers from 961 employees (a valid answer ratio of 39.0%).

UPIX(the ULVAC Precious Index and Average) was calculated from the survey results using ULVAC's own

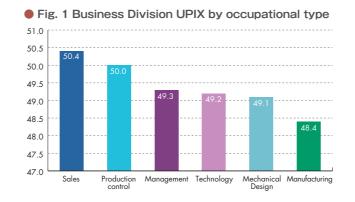
The UPIX's average value is 50. The higher the UPIX, the higher the evaluation in CSR awareness, technology. environment and organization.

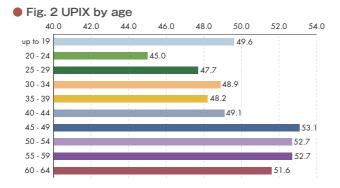
Concerning the UPIX by occupational type of business division, Sales and Production Control showed good results with values above 50. However, we need to raise CSR awareness in the Technology, Production and Mechanical Design Divisions—key divisions that support the company's technological capabilities—including the creation of a worksite where employees can work with enthusiasm. (See Fig. 1)

No difference was found in the UPIX by gender (Male: 50.1, Female: 49.5), reflecting ULVAC's fair corporate culture with equal opportunity regardless of gender.

Third, UPIX by age showed a tendency that the older the employee, the higher the evaluation (Fig. 2). We need to promote CSR activities and create a better workplace by listening to younger employees, who will support ULVAC' s future, and middle-tier employees.

We intend to continue this survey, listen to many employees' opinions and promote ULVAC CSR activities by having a rewarding workplace where employees can work with enthusiasm.





## ULVAC's Vacuum Technologies Are Supported by Consistent Efforts to Ensure Good Health

## ► Health Promotion Office Initiatives

To work with sufficient energy, mental and physical health is important. At ULVAC, two full-time occupational physicians and two full-time nurses work in the Health Promotion Office at the ULVAC headquarters/Chigasaki Plant to ensure good health for ULVAC's employees.

#### Promoting physical health

According to the results of the health checkups, we provide medical guidance for employees who need detailed examinations and/or medical treatment and healthcare guidance to prevent future lifestyle-related diseases and maintain and promote physical health.

Jointly with the ULVAC Health Insurance Association, in fiscal 2011 we newly conducted sleep apnea syndrome (SAS) screening tests, in which 78 employees participated. Through the explanatory meetings on the SAS test results, 122 employees received hygiene education on sleep-related issues, including sleep apnea syndrome. Those who were determined to require treatment as a result of the SAS test

#### Preventing health impairment due to overwork

Since August 2006, to prevent health impairment due to overwork, employees who have worked overtime in excess of the internal upper limit are given health checkups via a questionnaire and private interviews with an occupational physician. The number of such interviews started to increase in fiscal 2008 when fulltime occupational doctors were introduced. In addition, an extensive range of activities have continued. including overtime work patrols jointly by the Personnel Department and the labor union and periodic reporting of the status of overtime work to the Safety and Health Committee and at other internal meetings. As a result, the number of employees working long hours has continued to decline since peaking in fiscal 2009. We will continue to carry out measures for the prevention of health impairment due to overwork.

#### Promoting mental health

We offer an internal desk at the Health Promotion Office for employees to seek consultation regarding issues of mental and physical health. We receive 100 to 300 requests for such services every year, and these are responded to by occupational physicians and nurses at the Office, who offer advice on how to spend time at home and the workplace and refer those needing medical treatment or examinations to a medical institution. In addition, the occupational health staff holds regular interviews with employees who are on a long leave due to mental health or other problems to ensure they can feel reassured during their recuperation and return to work in good health. As a result, the ratio of those returning to work after a long leave in fiscal 2011 was high at 91%.

To prevent and early detect mental illness, the Health Promotion Office has provided mental health seminars and related information through in-house newsletters. To make these activities more effective, the Office is preparing the "Mental Health Action Plan" in line with the policies of the Ministry of Health, Labour and Welfare in collaboration with related departments.

were given a personal interview and referred to a specialized physician at a medical institution.

In fiscal 2012, we plan to perform viral hepatitis screening tests. With a view to continuing the global expansion of ULVAC, we are considering enhancing the health management for employees going overseas.



occupational physician

SAS screening tests Number of interviews with longtime workers (as of June 7, 2012) 160 140 120 100 11.06 08.06 09.06 10.06 System of consultation for employees with health problems **Employee** Health and medical guidanc Advice/

\*Under the contract with the UIVAC Health Ins

# Occupational Safety and Health

Among the ULVAC Group, "Safety First" is an ideal built into its Basic Philosophy of business operations, and as such we endeavor to secure safety and health both in our workplace environment and in products and services for our customers. By operating our Occupational Safety and Health Management System (OSHMS), which focuses on risk assessment, we aim to create an ideal environment.

## ▶▶ Operating the OSHMS system To ensure the safety and health of our customers and employees

ULVAC is fully committed to occupational safety and health activities to realize the basic policy of the OSHMS system. The number of product accidents at our customer sites has decreased every year, reaching less than 30% of the fiscal 2002 level. Meanwhile, the number of occupational accidents in our plants has seesawed, while being on a declining trend for the past few years.

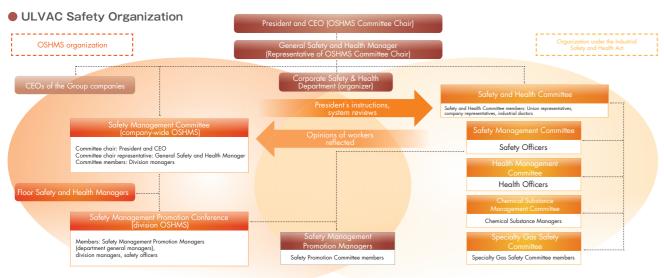
In 2010, we launched the Occupational Safety and Health Management System (OSHMS) under the direct control of the President and CEO. Under the system, the status of safety and health management at workplaces is reviewed by the President for the entire company and by the division and department managers for the respective divisions and

departments to ensure that safety and health activities are fully implemented throughout ULVAC.

In fiscal 2012, we will continue to use the risk assessment method to further improve the workplace environment. To this end, we will enhance the quality of risk assessment education so our workplace safety advisers can improve their practical skills.







## >> Carrying out global measures to address overseas business expansion

To address the ULVAC Group's rapid overseas expansion in recent years, the General Safety and Health Managers have conducted high-level patrols to oversee the safety and health promotion activities at the overseas Group companies. As a result, safety awareness at the Group companies has increased considerably, reducing the number of occupational accidents. In response, we have decided to delegate the patrolling responsibility to

the presidents of the respective companies with respect for their independence.

In addition, we have spent a year making gradual preparations to introduce the OSHMS system throughout the Group. Starting in fiscal 2012, all Group companies are now operating the OSHMS system, which is expected to greatly enhance the quality of safety and health activities across the ULVAC Group.







At all sites of ULVAC, including offices and production sites, employees meet each morning to chant about safety measures

## >> Labor safety

There was a slight year-on-year increase in the frequency ratio of occupational accidents for ULVAC, Inc. alone but the number of occupational accidents decreased significantly for the Group as a whole. We will continue to seek a reduction of occupational accidents by emphasizing the enhancement of risk assessment capabilities in fiscal 2012

## >> Product safety

Due to the various measurements taken since fiscal 2003, the product accident rate subsequently decreased each year until the rate in fiscal 2011 rose slightly from a year earlier. With a focus on enhancing the risk assessment of ULVAC products, we will continue to seek the elimination of product accidents on a global level by reinforcing education for all employees engaged in manufacturing to the handling of products.

## ▶▶Promoting mental health at the workplace

ULVAC has begun activities according to the policies of the Ministry of Health, Labour and Welfare to promote the mental health of workers. This will reinforce the conventional efforts already in place to promote mental health in the workplace.

## **▶** Disaster prevention

Based on the lessons learned from the Great East Japan Earthquake, ULVAC has performed an overall review of its fire and disaster prevention plans and conducted evacuation drills according to the revised plans. A particular focus was placed on evacuating to higher ground in case of flooding due to a tsunami, a typhoon, etc., and confirming the safety of employees.

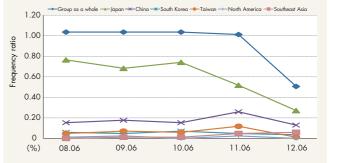
## >> Emergency life-saving initiatives

We now have six AEDs installed at the Chigasaki Plant, where we are providing an internal training program to increase the emergency life-saving abilities and awareness of employees. All employees who have joined ULVAC since 2012 have participated in the training program.

# Frequency ratio of occupational accidents +ULVAC +All industries + Electric devices + Manufacturing industries + Machinery + Manufacturing equipment and devices 1.57 1.57 0.78 0.69 0.8.06 0.906 10.06 11.06 12.06

Until fiscal 2007, our reports provided data only for the Chigasaki Plant, but reports since fiscal 2008 have covered all ULVAC sites and branches. In fiscal 2011, the occupational accident rate increased slightly from the previous year.

#### Number of occupational accidents for the Group companies



#### Product accident counts ratio



This graph indicates product accident counts per unit of sales (ULVAC non-consolidated) relative to the counts in the fiscal year ended June 30, 2002, which are indexed as 100. The product accident counts in fiscal 2011 increased from the previous fiscal year, but this was due to a change in the standard for counting accidents and all similar accidents concerning the same product were counted.





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# ☐ Global Corporate Citizenship Initiatives

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.

"Cheer up, ULVAC!"

Cherry blossom viewing festival

—ULVAC TECHNO, Ltd.—



ULVAC TECHNO, Ltd. held a cherry blossom viewing festival on April 7, 2012 and allowed the public to enter the site of ULVAC's Chigasaki CS Center, one of Chigasaki City's famous spots for beautiful cherry



trees. Although the precious old cherry trees were 30%-50% in bloom, the number of visitors exceeded 1,000. The festival was boosted by food stalls from local gourmet restaurants and other attractions.

"Cheer up, ULVAC!"



The third year of the Tanbo Project kicked off with a planting event on May 26, 2012. The rice-field acreage has increased each year so that it is now four times that of the initial year, raising expectations for the project as



an opportunity to expand communication among family members and the community. This year, we plan to make doburoku, or unrefined sake, using harvested rice in cooperation with a local sake brewer.

"Cheer up, ULVAC!"

Reinforcing the support for Chigasaki
City regarding disaster prevention

–ULVAC, Inc.—

ULVAC concluded a disaster prevention agreement in March 2011 with Chigasaki City, which is where the ULVAC head-quarters and the Chigasaki Plant are located. The agreement is designed to ensure collaboration in case of disaster and as such it prescribes seven items of support to be delivered, including the supply of places for (1) housing evacuees, (2) installing community wireless systems and (3) storing shelter materials for emergency occasions. According to the agreement, we are promoting readiness for emergencies. Specifically, we allowed access to our premises for evacuation drills by neighboring communities and to the ULVAC buildings to confirm evacuation routes, as well as letting the parents of neighborhood elementary school students tour the ULVAC facilities that would receive their children if they sought refuge on the way to or from school. Furthermore, we received



Fifteen employees from the Paju site of ULVAC Materials Korea, Ltd., which handles environmental technologies, joined the cleanup activity that took place at the Wollong Waste Water Treatment Facility in Paju City and near Munsan River on March 22, 2012 in commemoration of World Water Day.

"Cheer up, ALVAC!"

The 50th voluntary cleanup was conducted for the local community

—Reliance Electric Limited—

Reliance Electric Limited's voluntary cleanup activity for areas around its Yokohama office in April 2012 marked the 50th such effort since the activity began in July 2005. The 1,597 volunteers who have participated



in this activity have collected 679.2 kilograms of garbage. Reliance Electric will continue to engage in this cleanup activity.



and offered storage places for blankets, emergency radio communication system and other emergency equipment provided by Chigasaki City, while expanding the range of supplies, including food and beverages, that we reserve for emergencies. Due to its conclusion of the disaster prevention agreement with the city, ULVAC has gained the increasing attention of and garnered expectations from local residents and is considering further efforts to boost support.

"Cheer up, ULVAC!"

Munsan River cleanup activity in commemoration of World Water Day

-ULVAC Materials Korea, Ltd.—





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# ISO26000 Core Subjects and ULVAC's Engagement

Core subjects		Issues	Relevant pages
Organizational governance	Issue 1	Organizational governance	Pg. 37 Corporate Governance
	Issue 1	Due diligence	
	Issue 2	Human rights risk situations	
	Issue 3	Avoidance of complicity	
Human rights	Issue 4	Resolving grievances	Pg. 25 Personnel Policies
Troman rigins	Issue 5	Discrimination and vulnerable groups	Pg. 37 Compliance
	Issue 6	Civil and political rights	
	Issue 7	Economic, social and cultural rights	
	Issue 8	Fundamental principles and rights at work	
	Issue 1	Employment and employment relationships	Pg. 25 Personnel Policies
	Issue 2	Conditions of work and social protection	Pg. 26 Personnel Data Pg. 27-28 Roundtable Discussion among
Labour practices	Issue 3	Social dialogue	Overseas Trainees Pg. 29 CSR Awareness Survey
	Issue 4	Health and safety at work	Pg. 30 ULVAC's Vacuum Technologies Are Supported by Consistent Efforts to Ensure Good Health
	Issue 5	Human development and training in the workplace	Pg. 31-32 Occupational Safety and Health
	Issue 1	Prevention of pollution	D- 04 04
	Issue 2	Sustainable resource use	Pg. 21-24 Enhanced Environmental Management
The environment	Issue 3	Climate change mitigation and adaptation	Environmental Performance Toward Reduction of Waste Volume by
	Issue 4	Protection of the environment, biodiversity and restoration of natural habitats	the Segregation of Waste
	Issue 1	Anti-corruption	
	Issue 2	Responsible political involvement	
Fair operating practices	Issue 3	Fair competition	Pg. 18 Intellectual Properties
20.3	Issue 4	Promoting social responsibility in the value chain	Pg. 37 Compliance
	Issue 5	Respect for property rights	
	Issue 1	Issue 1 Fair marketing, factual and unbiased information and fair contractual practices	
-	Issue 2	Protecting consumers' health and safety	
	Issue 3	Sustainable consumption	Pg. 17-18 Improve the ULVAC Brand
Consumer issues	Issue 4	Consumer service, support, and complaint and dispute resolution	Pg. 19-20 Quality Improvements to Pursue with Suppliers
	Issue 5	Consumer data protection and privacy	
	Issue 6	Access to essential services	
	Issue 7	Education and awareness	
	Issue 1	Community involvement	
	Issue 2	Education and culture	
	Issue 3	Employment creation and skills development	Pg. 13-16 Feature: Technologies
Community involvement and development	Issue 4	Technology development and access	Pg. 33-34 Global Corporate
did do siopilioni	Issue 5	Wealth and income creation	Citizenship Initiatives
	Issue 6	Health	

# Involvement with Stakeholders

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 policies	Responsible departments	Fiscal 2012 activities
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.	All business operating divisions Corporate Sales & Marketing Division Corporate Production Control Office Intellectual Property & Licensing Department Research & Development Division	<ul> <li>Claim Management System</li> <li>Globalization of the ULVAC brand</li> <li>Globalization of the quality inspection system</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.	Procurement Center Production Control Of- fice	<ul><li>3S acronym of (Simple, Same and Standard)</li><li>Supplier certification system</li></ul>
Shareholders and investors	We endeavor to ensure the timely disclosure of business activities and financial information to promote communication with shareholders and investors.	Management Planning Department General Administration Department	●Issuance of ULVAC reports ●Financial results presentation materials and other IR communication
Employees	We endeavor to provide employ- ees with diverse working oppor- tunities and an environment in which they can work in comfort and with a sense of security.	General Administration Department Personnel Department Corporate Environment, safety and Health Department	<ul> <li>●CSR awareness survey</li> <li>●Promoting mental and physical health</li> <li>●Operation of the occupational safety and health management system</li> </ul>
Environment	We consider global environmental preservation as a challenge to be shared by all people, and we engage in environment-friendly business operations.	Management Planning Department Corporate Environment, Safety & Health Department	●Environment-friendly factory construction ●Feed-in tariff (FIT)
Local community	We perform social contribution activities based on the practices and cultures of the countries and regions in which we operate.	Management Planning Department General Administration Department Personal Department	●Tanbo Project ● Disaster prevention agreement with Chigasaki City ● Munsan River cleanup activity ● Local cleanup volunteering

35 ISO 26000 Core Subjects and ULVAC's Engagement

# Corporate Governance

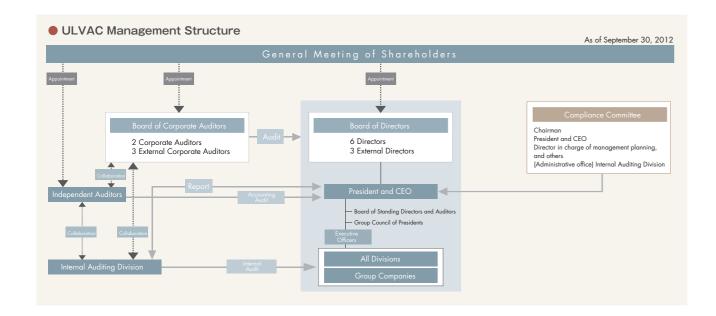
The ULVAC Group regards corporate governance as one of the most important managerial issues to fulfill its corporate responsibility toward society and shareholders. We place importance on the prompt and efficient execution of business operations, while securing the fairness, neutrality and transparency of corporate management. Therefore, we introduced the executive officer system on July 1, 2012 to separate the decisionmaking and business monitoring functions from the business executing function.

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

For making decisions on particularly important managerial issues, ULVAC has the Board of Directors, which consists of nine directors, including three external directors, and meets as required in addition to regular monthly meetings. For monitoring managerial decisions and business execution, ULVAC has the Board of Corporate Auditors, which consists of five corporate auditors, including three external auditors.

#### **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 13 members consisting of standing directors and executive officers.



# 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 Compliance Violation Reporting System

ULVAC has developed a Compliance Violation Reporting System to minimize the effects of any violations of laws and regulations. The contact point for the Compliance Violation Reporting 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 Compliance Violation Reporting System, the independence of the office's activities is ensured, and anonymous information is accepted. Moreover, the President and general managers

#### **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

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 manner, internal investigations are carefully conducted; numerous interviews are held with both internal and external parties, and attorneys attend any cases requiring their expertise.

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.

# 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

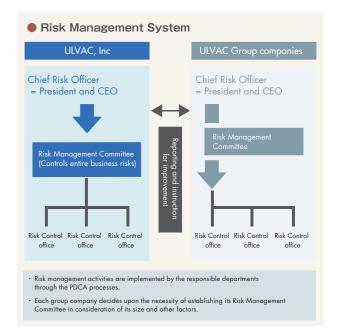
with related departments. Important information is promptly conveyed from the President of each group company to the President of ULVAC. Inc.

#### **ULVAC 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

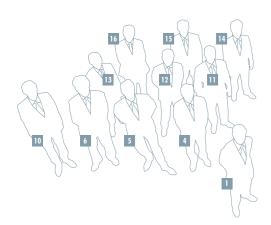
evaluation process, we continually collect information to enable prompt responses to emergencies. A Risk Management Committee, chaired by the President and comprised of the departments responsible for the risks, has also been established to verify the risk management

As the supervising organization for risk management, the Committee meets twice a year to set out basic policies and improve the management and operation.



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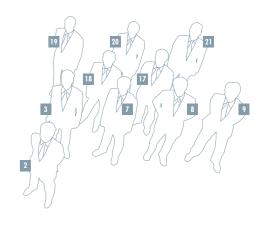
- Hisaharu Obinata President and Chief Executive Officer
- Hidenori Suwa
- Yoshio Sunaga Director and Senior Exective Officer
- Mitsuru Motoyoshi Director and Executive Officer
- Masasuke Matsudai Director and Executive Officer
- Hideyuki Odagi Director and Executive Officer

- Takashi Minagawa External Director
- Yoshinobu Nakano External Director
- Syuzo Ikeda External Director
- Yoshifumi Sato Executive Officer
- Hiroyuki Hirano Executive Officer
- Masatoshi Yamamoto

- Takao Nakamura Executive Officer
- Dr. Kazuya Saito Executive Officer
- Setsuo Iwashita Executive Officer
- Dr. Paik Choong Ryul
- Nobuo Oi Auditor
- Hironobu Machidori

- Senshu Asada External Auditor
- Takao Nonaka External Auditor
- Susumu Sakaguchi External Auditor

(As of September 30, 2012)



# ▶ Financial Highlights

Thousands of U.S. dollars (except per share amounts)

Thousands of U.S. dollars (except per share amounts)

FOR THE YEAR DATA	2008.06	2009.06	2010.06	2011.06	2012.06	2012.06
Net sales	241,212	223,825	221,804	232,040	196,804	2,481,453
Orderds received	293,110	172,212	221,705	235,932	152,221	1,919,312
Operating income (loss)	9,081	3,483	4,809	1,850	(6,384)	(80,494)
Income (loss) before income taxes	6,451	(1,600)	4,558	(9,192)	(33,704)	(424,971)
Net income (loss)	3,610	811	2,138	(8,706)	(49,984)	(630,238)
Capital expenditures	23,382	19,567	11,087	17,827	12,719	160,375
Depreciation	10,932	12,320	11,949	10,717	9,096	114,683
R&D costs	8,586	8,344	8,005	8,255	7,088	89,377

YEAR-END DATA						
Total assets	303,069	318,076	313,784	313,616	249,651	3,147,788
Net assets/Shareholders' equity	91,853	90,158	102,504	92,023	41,187	519,315
Number of employees	6,356	6,871	7,169	7,878	6,981	6,981

					(yen)	
PER SHARE DATA						
Net assets	2,052.48	1,961.08	1,992.06	1,787.51	751.00	9.47
Net income (loss)						
-Basic	84.16	18.90	46.60	(176.43)	(1,012.94)	(12.77)
-Diluted	78.20	17.44	42.65	_	_	_
Cash dividends	21	21	21	_	_	_

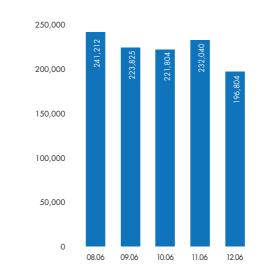
OTHER INFORMATION						
Net income /Average total assets (ROA)	1.2	0.3	0.7	_	_	_
Net income /Average share- holders' equity (ROE)	4.0	0.9	2.3	_	_	_
shareholders' equity ratio	29.1	26.4	31.3	28.1	14.8	14.8

U.S. dollar amounts have been converted from yen, for convenience only, using the approximate exchange rate on June 30, 2012, which was U.S.\$1 = \times 79.31.

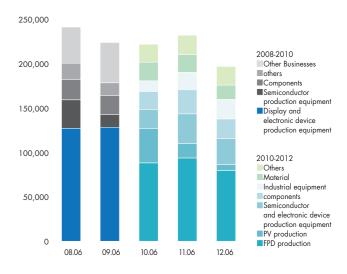
## ✓ Disclaimer regarding forward-looking statements

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.

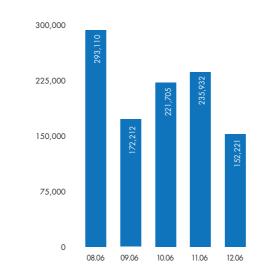




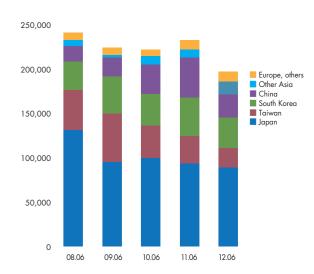
#### • Net sales by business segment (Millions of yen)



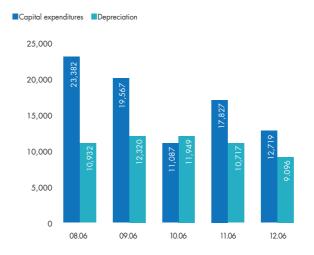




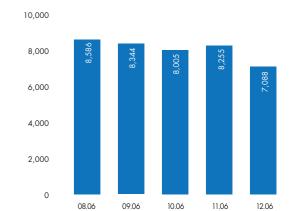
#### Net sales by region (Millions of yen)



#### Capital expenditures / Depreciation (Millions of yen)



R&D costs (Millions of yen)



41 Financial Highlights

# **▶** Business Overview

## **▶** Business Results

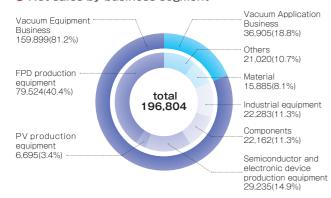
During the fiscal year ended June 30, 2012, the Japanese economy continued to face severe conditions due to several uncertain factors such as the lingering impact of the European debt crisis and concerns about possible power shortages despite several signs of gradual recovery such as demand for reconstruction following the Great East Japan Earthquake and solid personal consumption centering on the elderly, who drive domestic demand. In the United States, a gradual undertone of recovery was seen with positive signs such as a decline in the unemployment rate and improved personal consumption and housing starts. In Europe, the economy was at a stalemate in several countries with negative factors such as the debt crisis and a heightened unemployment rate. The Chinese economy continued to grow, but the pace of growth gradually slowed.

Under these circumstances, in the flat panel display (FPD) industry, in which ULVAC's main customers are involved, although some LCD panel manufacturers postponed capital expenditure schedules due to the struggling large-TV market, sales of mobile devices including smartphones and tablet PCs remained robust. Centered on the Asian region, new capital expenditures for small to medium-sized LCDs and organic light-emitting diodes (OLEDs) remained steady. In the semiconductor industry, the market remained relatively robust thanks to growing demand for memory generated by the increasing demand for mobile equipment such as smartphones and tablet PCs despite sluggish demand for PCs. In the energy and environmentrelated industries, amid efforts to reduce greenhouse gas emissions, demand continued to grow for energy devices such as power semiconductors and secondary batteries, as well as solar cells and eco cars including hybrid and electric vehicles (EVs).

To prevail in this operating environment, the ULVAC Group enhanced the competitiveness of its existing products including semiconductor production equipment and FPD production equipment, and started proactive moves aimed at increasing its corporate value over the medium to long term. Such initiatives included the development of leading-edge products to differentiate our products from competitors' products, aggressive promotion of the 3S campaign—"Simple (Simplification)," "Same (Commonization)" and "Standard (Standardization) -and steps for further globalization.

In terms of profits, amid sustained requests for price

Net sales by business segment (Millions of yen)

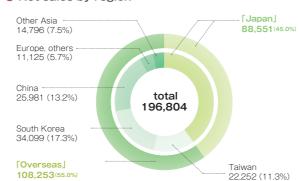


reductions from customers, the continued appreciation of the ven and severe price competition with other Asian manufacturers of production equipment, we streamlined fixed costs by trimming various expenses across the Group, as well as cutting back capital expenditures. In addition, we pushed ahead with cost curtailment by implementing production innovations including, in particular, the promotion of an enhanced global production structure through the transfer of production bases to South Korea, Taiwan and China, and an increase in the local procurement rate. Furthermore, given an extremely severe order reception environment, we carried out emergency measures such as a partial cutback in officers' compensation and salaries for managerial staff and the temporary layoff of workers to reduce fixed costs

Nevertheless, as it has become difficult to ensure profits in today's severe market environment, the Company formulated the Business Structural Reform Plan to evaluate growth fields where high future profits can be expected, radically shift corporate assets and personnel and considerably reduce fixed costs to solidify its competitive edge and business structure. The first specific measure to reduce losses such as streamlining fixed costs was carried out during the fiscal year under review.

Consequently, for the consolidated performance during the fiscal year ended June 30, 2012, orders received decreased by 83,712 million yen, or 35.5% year on year, to 152,221 million yen, and net sales dropped by 35,236 million yen, or 15.2% year on year, to 196,804 million yen, reflecting a decline in orders received for FPD production equipment and PV production equipment—a trend that seems unlikely to change in the foreseeable future. For consolidated profit and loss, which was considerably affected by the decline in sales mainly for the highly profitable FPD production equipment and the effect of additional costs accrued for equipment that incorporates features with high development costs, an operating loss of 6,384 million yen was recorded (compared with operating profit of 1,850 million yen for the previous fiscal year). An ordinary loss of 6.497 million yen was recorded (compared with ordinary profit of 1,441 million yen for the previous fiscal year). As extraordinary losses of 27.403 million yen including business structure improvement expenses were posted and deferred tax assets were reversed. the net loss totaled 49,984 million yen compared with a net loss of 8,706 million yen for the previous fiscal year. The breakdown of the business structure improvement

Net sales by region (Millions of yen)



expenses of 24,738 million yen includes a loss on devaluation of inventories of 8.490 million ven. a loss on disposal of fixed assets of 6,052 million yen, an impairment loss of 5.107 million ven and special additional retirement benefits, etc., of 4,730 million yen.

#### **Vacuum Equipment Business**

The operating results of the vacuum equipment business by market segment are as follows:

#### ■FPD production equipment

In the FPD-related market segment, sales were posted for sputtering equipment for large LCD TVs mainly to the Asian region, as well as for sputtering equipment for the production of small to medium-sized LCDs for mobile devices, plasma enhanced chemical vapor deposition (PE-CVD) equipment and OLED production equipment. Orders received during the fiscal year under review included those for sputtering equipment for small to medium-sized LCD production for mobile devices, OLED production equipment for mobile devices and lighting use and touchpanel production equipment to Japan and South Korea. However, affected by the rapid reduction in demand for LCD TVs and the economic setback, sales in this market segment remained sluggish.

#### ■PV production equipment

In the PV-related market segment, sales were recorded mainly for compound-type and crystal-type solar cell production equipment to China and South Korea. Despite some orders received for compound-type and highefficiency crystal-type solar cell production equipment, orders for thin-film type solar cell production equipment remained stagnant. Hence, severe sales conditions continued, as a whole.

#### Semiconductor and electronic device production equipment

In the semiconductor and electronic device-related market segment, sales were recorded mainly for the ENTRON<sup>™</sup>-EX series of sputtering equipment for memory to Asia and the United States against the backdrop of high demand for smartphones and tablet PCs. We also received inquiries for production equipment for nonvolatile memory, which is highly expected to be the nextgeneration memory, and production equipment for power semiconductors, which are indispensable for increasing the efficiency of electricity use and energy conservation. On the other hand, orders received and sales of LED production-dedicated dry-etching systems and deposition systems declined because demand for LEDs for lighting and for the backlights of LCDs as a response to energysaving needs decreased drastically mainly in China.

#### Components

In the component-related market segment, orders received and sales of dry pumps, etc., for FPD production equipment remained sluggish due to the impact from the postponement of large-scale LCD-related capital expenditure projects. However, orders received and sales related to cryopumps for OLED production equipment and measuring instruments remained robust.

#### Industrial equipment

In the industrial equipment-related market segment, orders received and sales of vacuum heat treatment furnaces for rare-earth sintered magnet production, vacuum melting furnaces and vacuum deposition equipment for automotive parts were robust in China. However, the order reception environment was severe, as a whole, because touch-panel-related capital expenditures were suspended by many of our prospective clients.

As a result, the vacuum equipment business saw orders received of 114,899 million yen, an order backlog of 55,118 million yen and net sales of 159,899 million yen. An operating loss of 7,355 million yen was recorded for the

#### **Vacuum Application Business**

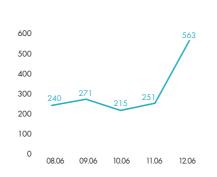
The operating results of the vacuum application business by market segment are as follows:

#### Materials

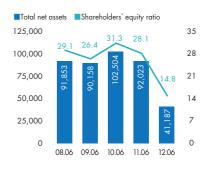
With respect to the sputtering target materials for LCDs. which account for most of the sales of the materials market segment, sales and orders received came mainly from Asia. Although we aggressively promoted our solution businesses combined with production equipment. our cost-cutting efforts failed to compensate for decreased production by major panel manufacturers and the pressure to cut prices, and the business environment remained severe.

In the control-system-related market segment, orders received and sales increased, reflecting the return to a recovery path of capital expenditures in the metal processing and automotive industries and the launch

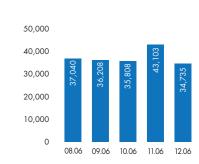




#### ● Total net assets (Millions of yen) / Shareholders' equity ratio (%)



#### SG&A expenses (Millions of yen)



of new products. With respect to analysis devices. orders were received from private-sector companies in Japan and universities in the United States and Europe. Meanwhile, orders received and sales of the mask blanks business remained steady.

As a result, the vacuum application business saw orders received of 37.321 million ven, an order backlog of 9.858 million yen and net sales of 36,905 million yen. Operating profit for the year amounted to 935 million yen.

#### Analysis of Financial Conditions

#### 1: Assets, Liabilities and Net Assets at Fiscal Year-End

#### Assets

Total assets decreased by 63,965 million yen compared with the end of the previous fiscal year, reflecting decreases of 7,862 million yen in cash on hand and in banks, 15,683 million yen in notes and accounts receivable, trade, 14,060 million yen in inventories, 12,065 million yen in deferred tax assets, 13,133million yen in Property, plant and equipment.

#### Liabilities

Total liabilities decreased by 13,129 million yen compared with the end of the previous fiscal year, chiefly owing to an increase of 14,872 million yen in short-term borrowings, partly offset by a decrease of 26,866 million yen in notes and accounts payable, trade.

#### Net Assets

Total net assets decreased by 50,836 million yen compared with the end of the previous fiscal year. This decrease was attributable to a decline of 49,984 million ven in net loss.

#### 2: Cash Flows

#### Cash Flows from Operating Activities

Net cash used in operating activities amounted to 8.492 million ven. reflecting positive factors such as depreciation and amortization, a decrease in accounts receivable, trade, and a decrease in inventories, and negative factors such as a loss before income taxes and minority interests, a decrease in accounts payable, trade, and a decrease in advances received.

#### Cash Flows from Investing Activities

Net cash used in investing activities amounted to 11,328

million yen, which was mainly attributable to payments for acquisition of tangible and intangible fixed assets and the payments for acquisition of affiliates.

#### Cash Flows from Financing Activities

Net cash provided by financing activities totaled 12.616 million ven. chiefly arising from a net increase in shortterm borrowings and the repayments of lease liabilities.

As a result, consolidated cash and cash equivalents were 28,180 million yen at the end of the fiscal year under review, down 7,542 million yen from the previous fiscal year-end.

## **▶** Business and Other Risks

Major potential risk factors that could influence business performance and the financial position of the ULVAC Group are as follows:

#### 1: Fluctuations in the Markets for FPDs, Photovoltaic Cells (PVs) and Semiconductors

The ULVAC Group has grown by developing proprietary technologies for vacuum equipment used in the manufacturing process of FPDs, PVs and semiconductors. and by marketing such devices, which has allowed us to build market shares in these fields. These products account for about 60% of our consolidated net sales and have become the mainstay of the Group. However, any large reduction in capital expenditures by manufacturers of FPDs, PVs and semiconductors, our corporate customers, or any deterioration in the financial conditions of our corporate customers could affect our business results and financial position.

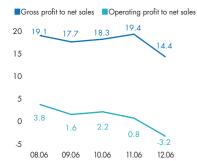
#### 2: Influence of Research and Development

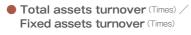
Based on sustained proactive investment in research and development, the ULVAC Group has consistently brought new products to market using cutting-edge technologies. However, if it becomes extremely difficult to achieve the development that meets the requirements indispensable for the commercialization of new products or such development is markedly delayed, our business results and financial position could be affected adversely.

#### 3: Influence on Pricing Competition

Although in the FPD industry—ULVAC's principal

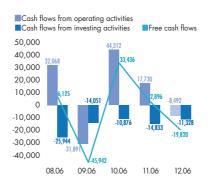
#### Gross profit to net sales (%) / Operating profit to net sales (%)







#### Cash flows (Millions of yen)



customer—demand for digital home appliances remains robust, there is constant pressure from the customer side to lower prices. In addition to this, new competitors are emerging in South Korea, Taiwan and China, further intensifying sales competition. This, combined with higher costs caused by surging prices for raw materials and goods purchased, could affect our business results and financial position.

#### 4: Influence of Increased Overseas Sales

The overseas net sales ratio of the ULVAC Group is high. with South Korea, Taiwan, China and other economies, particularly in the Asian region, occupying larger shares. To avoid currency exchange risks, transactions by ULVAC are, as a rule, denominated in yen. However, in the context of sales to the Asian region at a time of yen appreciation, the Group is placed at a disadvantage in its price competitiveness relative to overseas manufacturers in yen-denominated transactions. If ULVAC conducts an exceptional foreign-currency-denominated transaction, sudden exchange rate fluctuations might cause losses in the exchange. The aforementioned factors could negatively affect our business results and financial position

#### 5: Influence of Global Business Development

To secure market share in China, a prospective future growth market, the Group has proactively advanced into China and is pursuing business initiatives through locally incorporated subsidiaries. Although arrangements have been put into place at locally incorporated subsidiaries for gauging business conditions and taking corrective actions when needed, risks such as unforeseeable changes in legal and tax systems, a shift to a floating exchange rate system, political instability, business fluctuations and an outflow of personnel could affect our business results and financial position.

#### 6: Influence of Quality Assurance Efforts

The Group has installed quality assurance systems, acquired ISO9001 certification and has been providing

services with a high level of customer satisfaction. As ULVAC continually provides products with leading-edge technologies, there are numerous development elements that could lead to a situation in which ULVAC has to collect and repair products free of charge due to some unforeseeable defect: this could affect our business results and financial position.

## 7: Influence of Intellectual Property Rights

The Group owns numerous patents related to various types of vacuum systems and proactively aims to acquire intellectual property rights. Moreover, ULVAC examines the patents of third parties concerning such products. However, unforeseeable litigation brought by a third party for a breach of patent rights might pose risks that could negatively affect our business results and financial

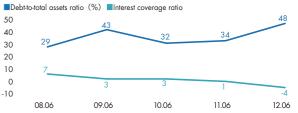
#### 8: Impact on Financing

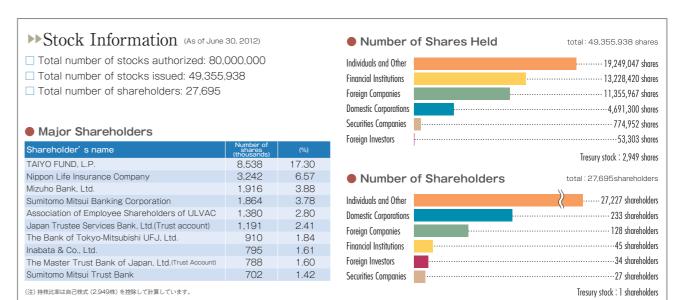
A financial covenant is incorporated into some of the loan agreements that the Group has entered into with financial institutions. Any violation of such financial covenants might negatively influence the business performance and financial position of the Group.

#### 9: Other Risks

As applicable to companies that engage in global operations or in a wide range of business areas, the Group's business results and financial position could be negatively affected by global and local economic climates, or any event of force majeure, such as natural disasters. acts of war or terrorism, or infectious diseases.

Debt-to-total assets ratio(%) Interest coverage ratio (Times)





45 Analysis of Business Results



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