**ULVAC’s Value Creation <Priority Issues>**

**About ULVAC**

Social issues

- Establishment of global network infrastructure and the smart society, progress of 5G and IoT
- Aspiration for the progress of all industries and technological innovation
- Diversification of semiconductor and electronic device applications and needs
- Trend toward devices with smaller size, more speed, larger capacity and lower power consumption

**Market opportunities**

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

**ULVAC’s six businesses**

- FPD and PV production equipment
- Semiconductors production equipment
- Electronic device production equipment
- Industrial equipment
- Components
- Materials

**Main value offered by the business**

- Response to new semiconductor and electronic device fields and needs by applying vacuum deposition and other technologies and R&D of cutting-edge processes through collaborative creation with customers

**Customers and their products**

- Semiconductor: Memory, logic 3D-MEM, CMOS, CPU, etc.
- Functional devices: Sensing, communication (5G), display MEMS, SAW/FBAR devices, OLED, etc.
- Solar cell manufacturer, battery manufacturer, etc.
- Energy: Heat generation, power storage, conversion Solar cells, all-solid-state batteries, power devices, magnets for wind turbines
- Contribution to creation of a sustainable society by power generation, energy storage, and energy saving

**ULVAC’s business activities**

- Realization of the smart society
  - Autonomously driving, agriculture, healthcare, retail, care, etc.
  - **Fundamental technology for realization of the smart society**
  - IoT, cloud, AI, robots, big data, drones

- Energy management, next-generation energy
  - Enhancement of performance of solar cells and power devices by vacuum deposition, ion implantation and other technologies, contribution to lower power consumption of various devices

- Healthcare, life innovation
  - Longer life and volume reduction of freeze-dried food, powder vaccines, drugs, etc. by vacuum freeze drying and other technologies

- Construction, social infrastructure, mobility
  - Enhancement of performance of industrial materials and response to new materials by applying vacuum heat treatment and other technologies

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**ULVAC’s Value Creation**

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

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