

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

Research and Development

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

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

To continue to provide innovative technologies and products in the ever-changing market, our R&D projects undergo selection and focus in which a clear distinction is made between "development of innovative technology for principal products of the mainstay business" and "development of fundamental technologies in preparation for the future" based on analysis of customer needs and market trends. Moreover, our development structure leverages business partnerships with various companies and research institutions.

We are also laying the foundation for long-term sustainable growth underpinned by the latest technologies.

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

Principal themes

- Advanced logic
- NAND/DRAM
- Next-generation non-volatile memory
- Next-generation displays
- Next-generation batteries
- Communication devices
- Power devices
- Electronic devices (MEMS)
- Electronic packaging
- Optical devices

Relevant SDGs

4 QUALITY EDUCATION

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

17 PARTNERSHIPS FOR DEVELOPMENT

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

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

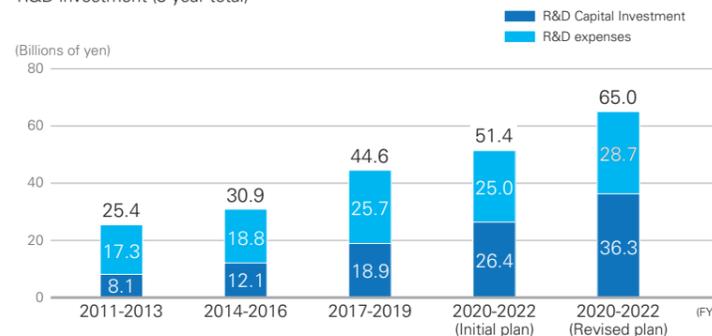
Combining Tokyo Tech's plasma diagnostics technology and AI technology, the Collaborative Research Cluster aims to improve the performance of plasma processing equipment by measuring plasma conditions that could not be measured previously. The synergy created by laboratories from different fields working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

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

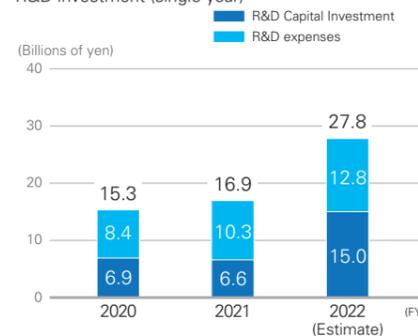
Progress in R&D Investment

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

R&D investment (3-year total)



R&D investment (single year)



Global Network

Networks offering solutions to support industrial development worldwide

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

Japan



China



Taiwan

Taiwan



In regard to manufacturing, ULVAC has expanded a production system centering on Japan, China, South Korea, and Taiwan. Going forward, we will emphasize improvement of production efficiency by further promoting optimal production. Each site of the ULVAC Group has established its own local supply chain. In addition, the ULVAC Group is reestablishing a global supply chain to optimize procurement.

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

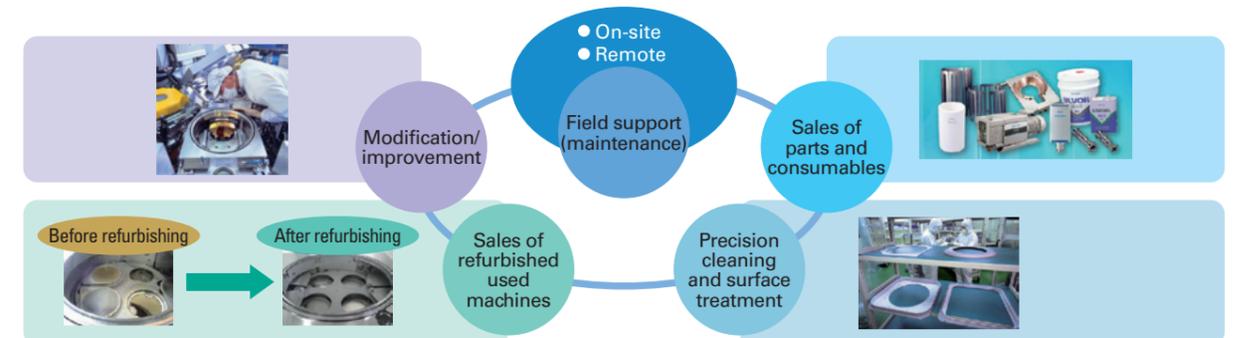
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[For details](#) [Website>>Support>Service Center](#)

Customer Support

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

Our customer support network in Japan and around the world underpins our customers' production operations in a manner that meets their needs throughout the product life cycle. We offer comprehensive maintenance services covering components and make proposals for modification and improvement. Furthermore, by using information on customer needs as feedback for the development of new equipment, we aim to offer even more sophisticated vacuum technologies and services. We will also expand remote customer support packages utilizing IoT equipment.



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

