

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

# Here & There, Near your side

## **ULVAC's Vacuum Technology**

AI

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

## Hospitals

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

## Data Centers

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

## Electric Vehicles

In pursuit of carbon neutrality, the transition to non-gasoline-powered vehicles is accelerating as the world seeks to reduce driving-related CO<sub>2</sub> emissions. Vacuum technology is used in the production of **power devices, electronic devices, high-performance batteries, high-performance magnets**, and other parts at the heart of EVs and other **electric vehicles**.

## Vacuum Circuit Breakers

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

