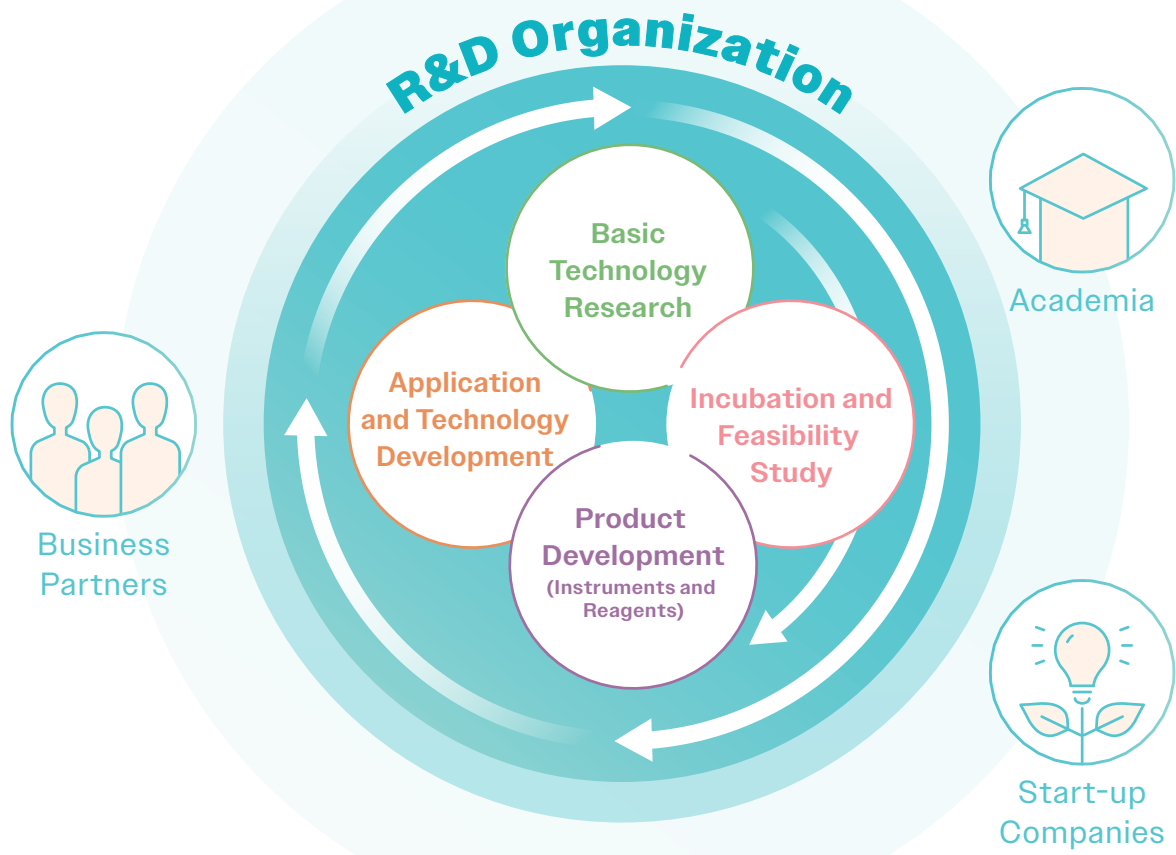
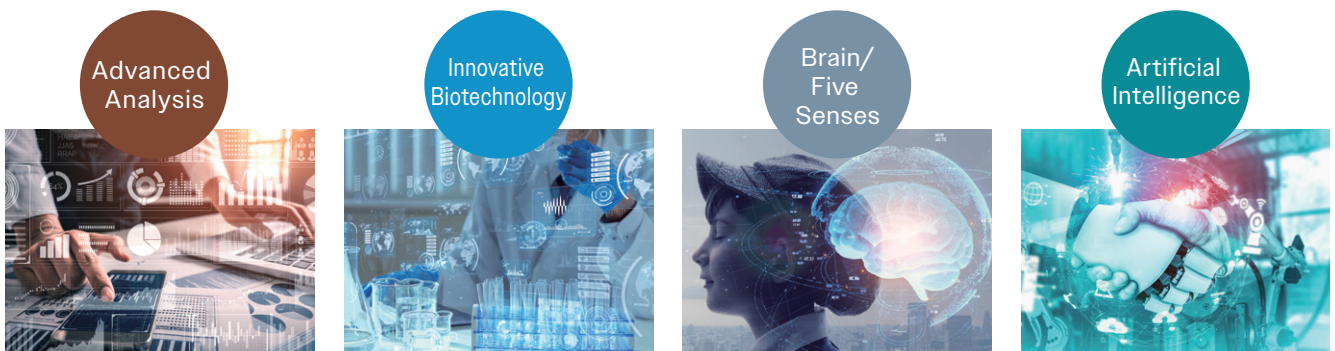


R&D Organization and Collaboration Processes for Promoting Innovation



Advanced and Highly Original Technologies Serve as Core Elements for Generating New Value



We aim to develop the world's first technologies in fields such as ion (MS), X-ray, light, and quantum, helping to provide solutions to social problems. We also plan to expand and utilize advanced analytical technologies in both existing and new businesses, leading to new products and services.

We will acquire and develop sophisticated technologies in biotechnology fields, where there has been remarkable technical innovation, to solve customer and societal challenges. The aim is to use innovative biotechnology to generate new customer value in areas such as preventive medicine, early diagnosis, regenerative medicine, and bioproduction.

We are developing technologies for combining measurements of the brain and five senses. The technologies will be used for interventional procedures based on biofeedback coordinated with minimally restrictive brain measurements and stimulation of the five senses to improve human performance and support mental well-being, for example.

We will offer solutions for customer and societal challenges by using a combination of AI and robotics technologies to support the advancement and automation of analysis, measurement, diagnosis, and inspection and, by using AI technology in signal and image processing R&D, create more advanced products and services as well as new businesses.

Contributing to Innovations for a Better Society

Application and Technology Development

To create new technologies and innovations, it is essential that we work with partners in the respective regions where the challenges or needs arise.

Consequently, we are engaged in joint development or innovation creation projects with various partners around the world.

Especially in the USA, with our three R&D centers, we will accelerate the development of products and technologies by accurately understanding our customers' needs in the pharmaceutical, healthcare and environmental fields.



Application Researches / Collaborative Researches

Americas

- PhRMA
- Development of a semi-preparative supercritical fluid chromatograph



- Providence Cancer Institute, U.S.A.
- New cancer photoimmunotherapy



Europe

In partnership with Total Energies SE in France and two European universities, we have developed a new instrument that can selectively detect oxygenates in biofuels



China

Established a joint laboratory on omics research with the Dalian Institute of Chemical Physics, and built a partnership focused on environmental analysis with the Research Center for Eco-Environmental Sciences



Asia

- Changi General Hospital in Singapore
- Mass spectrometry-based clinical testing and research for personalized treatment



Japan

Collaborations with Osaka University and others for researching and developing cultured meat manufacturing technologies and ensuring their actual use in society

