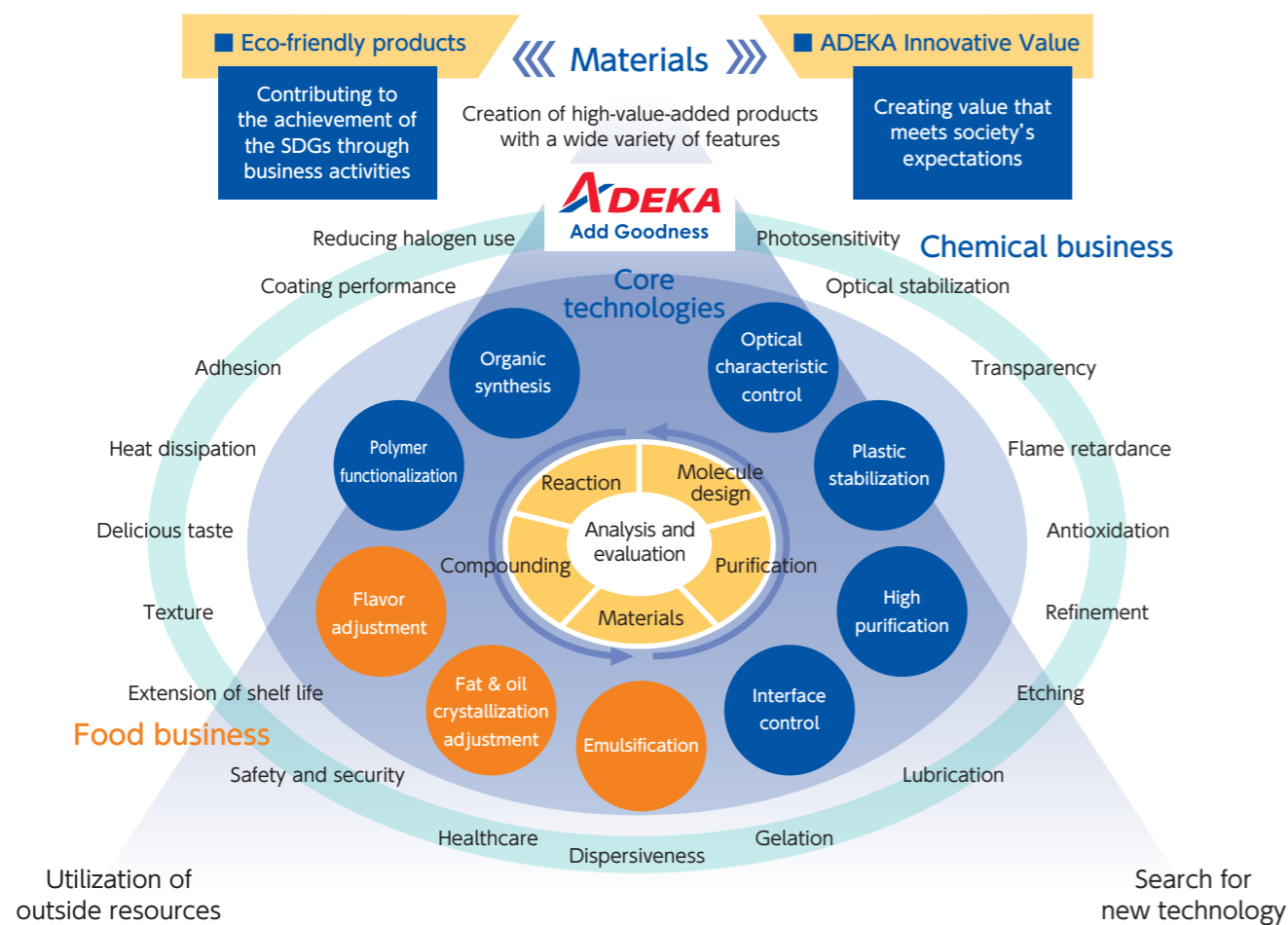


Key Topic Research and Development

R&D Vision

ADEKA's R&D Division has characterized its target state for 2030 as "contributing to a sustainable society and the enrichment of people's lives by continually developing and providing innovative materials and solutions." By fusing technologies developed over the Company's more than a century of history, and by actively adopting technologies it lacks from outside resources, ADEKA delivers products offering ADEKA Innovative Value (AIV), bringing comfort, convenience and affluence to people around the world. In the same way, ADEKA creates a wide range of eco-friendly products, contributing to the protection of the Earth's environment. Through these efforts, ADEKA's R&D Division seeks to fulfill its vision of the future of R&D: "Blazing a trail for the future of humanity through technology."



Atsuya Yoshinaka
Director and Operating Officer
General Manager,
Research & Development Division

Contributing to a sustainable society and the enrichment of people's lives

As a materials manufacturer, the ADEKA Group adopts a B2B business model for many of its products. As such, we have fewer opportunities than other companies to gauge directly how our R&D products contribute to society. In our discussion of CSR, we examined two of the Group's CSR priority issues, "supply of eco-friendly products" and "creating value that meets society's expectations," adopting "net sales of eco-friendly products" and "number of AIV-certified products" as key performance indicators (KPIs). Through this approach, we are rendering visible the degree to which our R&D activities contribute to a sustainable society and enrich people's lives, providing valuable motivation to individual researchers. Nothing would please us more than to demonstrate that our products and technologies are playing a role in achieving the SDGs by 2030.

Research and Development Policy

To fulfill its R&D vision, the Group has established policies on three topics: 1) selection of research themes and basic stance; 2) expansion of existing businesses; and 3) creation of novel businesses.

1) We are working diligently on research and development that contributes to a sustainable society and the enrichment of people's lives.

When we select research themes, we orient ourselves toward product development that contributes to society on a wide range of ways and levels, such as bringing comfort and richness to people's lives (AIV products) and protecting the Earth's environment (eco-friendly products). From the R&D stage onward, we are focused on product design and supply-chain construction that are friendly to people and the Earth (raw materials and production processes used). To these ends, the R&D division coordinates closely with relevant departments and sections in-house on matters such as purchasing logistics and production technology.



Intermediate testing equipment for developing production processes

2) We are concentrating our efforts on market and product development focused on strategic products, to achieve further expansion of operations.

To achieve further expansion of existing businesses, the ADEKA Group pursues timely product development, by accurately grasping changes in the market environment and user needs and sharing the information in-house. For this purpose, it is essential that we reinforce our marketing capabilities through close coordination within ADEKA and the ADEKA Group. Each Group facility around the globe is equipped with its own development lab, which serves as a front-line base for apprising local trends early. The R&D Division coordinates closely with overseas facilities and ADEKA's Sales Department, while conducting rapid development with solid backing from marketing.

Developing and delivering the materials and solutions the world needs requires close familiarity with leading-edge evaluation and analytical technologies at the same level as the Group's users. In addition to installing large evaluation and analytical equipment, the Division works hard to establish appropriate testing environments (such as clean rooms, temperature and humidity management and lighting techniques for development of photoreactive materials).



ADEKA (CHINA) CO., LTD.
Innovation Center (China)



ADEKA KOREA CORPORATION
R&D Center (South Korea)



ADEKA FINE CHEMICAL TAIWAN CORPORATION
Research Center (Taiwan)

3) The ADEKA Group is moving forward with the creation of businesses in frontier domains such as energy, the environment, next-generation ICT and the life sciences.

The R&D Division leverages the strengths of the ADEKA Group to create novel businesses by fusing technologies in ways that transcend the traditional barriers between organizations. In R&D in frontier domains, the division first draws a development roadmap, taking into account society's needs and the time-frame available, with a clear image of its goals. The division then shares that roadmap with all related persons, so that all participants move in unison toward commercialization.

The division also maintains active dialogues with universities, research facilities and companies in Japan and around the world, using open innovation to accelerate the creation of novel businesses. For example, the division has established a segment for joint research with Kyushu Institute of Technology on novel polymer materials, located on the Institute's campus. This segment is engaged in the development of semiconductor photoresist materials and novel adhesives for automobiles and electronic components.



Kyushu Institute of Technology Molecular Engineering Institute, a joint-research segment with Kyushu Institute of Technology, located on the Institute's campus