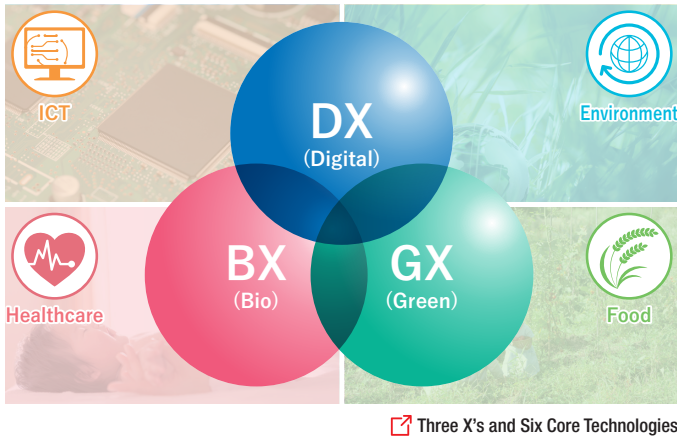


Innovation Strategy

As an Innovative Solution Provider aiming to solve societal issues with innovative technologies, we have designated “advance innovation” as one of the material issues to be addressed as management priorities. Leveraging our technological expertise in diverse areas, we strive to address societal issues by delivering solutions (value) across four areas: food, ICT, healthcare, and the environment.

Research and Development

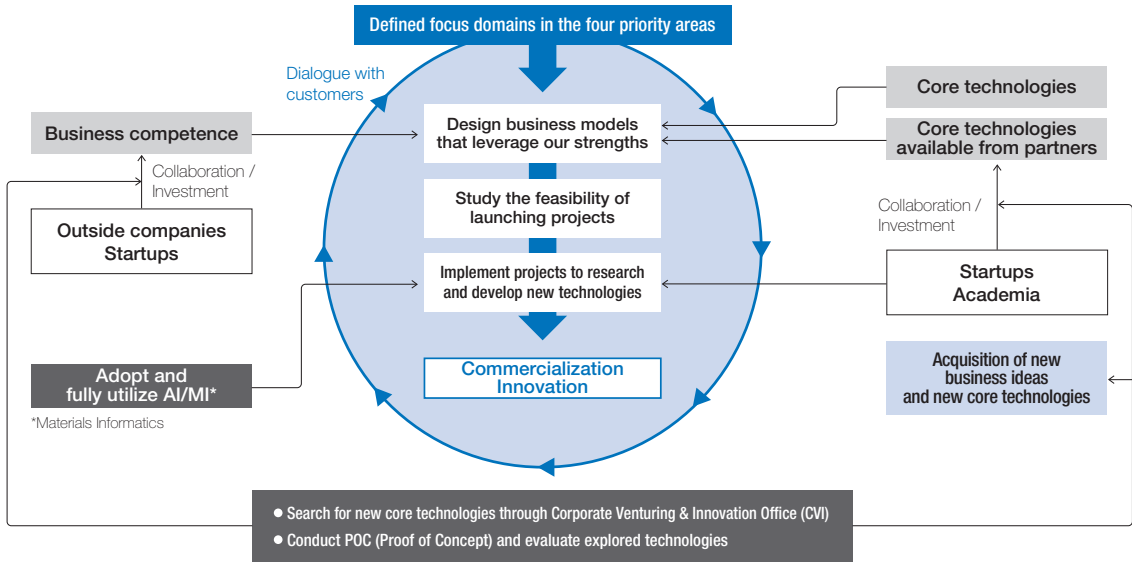
Amid increasing uncertainty in the business environment surrounding our company, the role played by the chemical industry in solving societal issues, such as climate change, food security, and infectious diseases is significant, and our business opportunities are expanding. Through extensive research activities over the years, we have acquired six core technologies and cultivated research and development assets in the three areas of Green, Digital, and Bio. Through our businesses, we will contribute to solving societal issues by implementing an R&D strategy centered on the three areas of transformation—Green Transformation (GX), Bio Transformation (BX), and Digital Transformation (DX)—and providing innovative solutions.



Sumitomo Chemical's Innovation Ecosystem Accelerates the Creation of Next-Generation Business

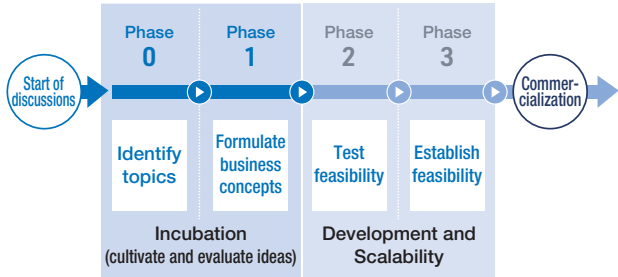
Our company is building an innovation ecosystem (a system that continuously creates innovation) to steadily link R&D and business development to the creation of next-generation businesses. In each of the four priority areas, we have defined focus domains for our efforts within four priority areas, have identified core technologies that we own and core technologies that we do not own, and we are acquiring non-owned technologies through collaboration with startups and academia. As for business competence, we are also supplementing the lacking areas with alliances and investments with outside companies and startups, considering designing a business model that leverages our strengths and thematizing. At each stage of promoting themes, we communicate closely with relevant internal departments, external partners, and customers, and appropriately reflect their feedback to promote research and development. In addition, we will incorporate new ideas and technologies that emerge in the course of theme promotion and dialogue with partners, and link this to the continuous creation of innovations.

Innovation Ecosystem



Stage-gate Management System

We have implemented the Stage-Gate Management System that oversees the development of research themes in four stages, from the idea stage to commercialization. We will proactively incorporate internally proposed themes in the idea stage while also clarifying the requirements for passing through the gate in each phase. We will determine whether or not to pass through the gate through deep discussions not only with the research division but also with the business divisions. This has enabled us to promptly create new themes and make decisions on discontinuation of projects, taking into account their future potential.



Promising development theme examples

White bio

- Cut GHG emissions with bio-based manufacturing that does not use petrochemical resources
- Target: Convert our products to bio-based input materials Bio-manufacturing of rare bio-derived products

Bacteria design Process design Scale up Production

Broad coverage at multiple of our research centers, including our Bio-Science Research Center

Compound semiconductors

- Focusing on next-generation power devices (GaN) to address the increasing data volume and energy consumption resulting from advances in AI
- Targeting the expansion of our business to a tens of billions of yen level by the 2030s, when full-scale growth in power semiconductor demand is expected.

Semiconductor back-end process materials

Performance chemicals	Packaging material	Wiring materials
• In-process cleaners Adopted in mass production	• Next-generation thermal management materials Under development with customer	• For next-generation processes Photosensitive materials Under development with customer
• Wafer protectant Adopted in mass production		
• High throughput solutions Under development with customer		

For details, see “Sumitomo Chemical's Semiconductor-Related Business”

Disease risk testing kits

- Realize determination of disease risk using our proprietary cell chips embedded with a diverse range of high-sensitivity receptors
- In 2027, enter testing business for consumers**

**Testing developed based on clinical needs at medical facilities, health and wellness testing sites, etc.

Determine risk of disease from light emission pattern

Organic molecular resist

For details, see “Sumitomo Chemical's Semiconductor-Related Business”

Regenerative medicine/cell therapies

For details, see “Advanced Medical Solutions”

Technologies that reduce environmental impact (Green Innovation Fund)

Leverage the GI Fund to promote the development of technologies that reduce environmental impact

Development themes		Progress to date	Targets under the new plan (out to 2027)	Commercialization target
Chemical recycling	① Production of olefins by direct cracking of waste plastics	• Achieved 60% yield of targeted olefin yield in bench trials • Began design of pilot facilities	Build and launch pilot facilities	Early 2030s
	② Highly efficient alcohol production from CO ₂	• Achieved 80% methanol yield in pilot (compared to about 20% under conventional methods) • Began design of demonstration facilities	Build and launch demonstration facilities	
	③ Olefin production from alcohols	• Achieved 80% yield of targeted olefin yield in bench trials • Pilot facilities are under construction and scheduled for completion in the first half of FY2025.	Establish technological feasibility of pilot facilities and design commercial-scale equipment	
Membrane-based CO ₂ separation		• Reclaimed CO ₂ of 90%+ purity from multiple types of CO ₂ emission sources	Demonstrate on pilot facilities	Around 2030
Cathode direct recycling		• Achieved 98% battery capacity recovery in direct-recycled products on bench equipment	Study scale up for continuous operations	Early 2030s

(Equipment scale-up order: bench → pilot → demonstration)

Standardization Initiatives

We have established a task force dedicated to standardization strategy. By addressing carbon-neutrality challenges and participating in ISO working groups on chemical recycling, we are promoting a standardization strategy aimed at the early societal implementation and widespread adoption of new technologies.