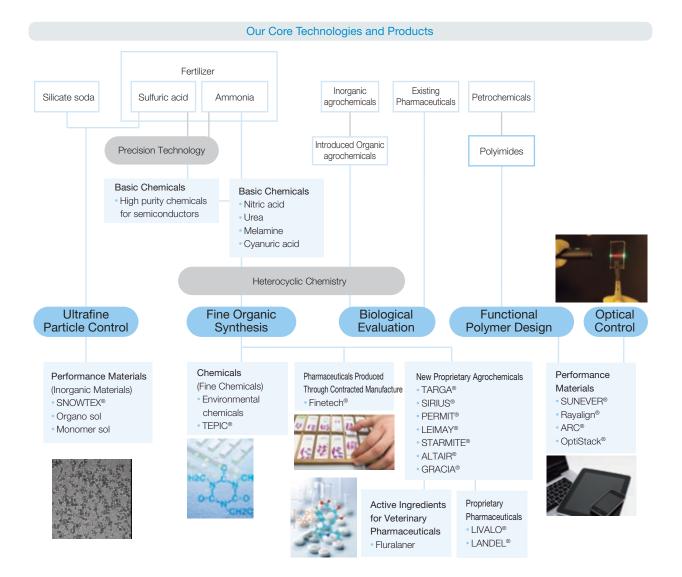
# **Research and Development**

With "Fine Organic Synthesis", "Functional Polymer Design", "Ultrafine Particle Control", "Biological Evaluation", and "Optical Control" serving as our core technologies, we aim to become "A future-creating enterprise that responds to social needs with unique, innovative technologies" committed to continue creating new technologies and products.

### **Our Core Technologies**

Originally started as a fertilizer company, over our long history we have grown with "Fine Organic Synthesis", "Functional Polymer Design", "Ultrafine Particle Control", "Biological Evaluation", and "Optical Control" serving our core technologies.

In addition to further refining these technologies, we are working to develop new products and technologies and create new businesses by fusing these technologies while working closely with each other between research laboratories and related departments. We are also promoting the introduction of new technologies through joint research with universities and other companies.



#### **Chemical Research Laboratories**

Chemical Research Laboratories is Nissan Chemical's core R&D site, and is responsible for our corporate research. In addition to R&D of agricultural chemicals and pharmaceuticals that utilize the fine organic synthesis technology, Chemical Research Laboratories performs research on companywide processes, material analysis research, etc.

- Analysis Research Department
- Synthesis Research Department
- Agricultural Chemicals Research Department
- Pharmaceutical Research Department



Funabashi, Chiba

#### **Materials Research Laboratories**

Materials Research Laboratories creates highly unique new materials, allowing us to respond quickly to increasingly sophisticated and diverse market needs. At the same time, the Laboratories focuses their efforts on researching next-generation materials in an effort to create new markets.

- Display Materials Research Department
- Semiconductor Materials Research Department
- Inorganic Materials Research Department
- Advanced Materials Research Department
- Frontier Materials Research Department





Funabashi, Chiba

Toyama, Toyama



Sodegaura, Chiba

#### **Biological Research Laboratories**

Biological Research Laboratories serves as a place for life science research, such as evaluation research related to the usefulness and safety of agricultural chemicals, pharmaceuticals and medical materials.

- Agricultural Chemicals Research & Development Department
- Toxicology & Environmental Science Department
- Pharmaceutical Research Department
- Medical Materials Group



Shiraoka, Saitama

## **R&D** Expenses

We consider R&D is the source of growth, and have intensively invested our management resources in R&D.

Over the last five years, R&D expenses have totaled 84.1 billion yen. The R&D expenses in Performance Materials and Life Sciences (Agricultural Chemicals and Pharmaceuticals) account for 45% and 41% respectively. In addition, 39% of employees of regular position are allocated as R&D personnel.

