

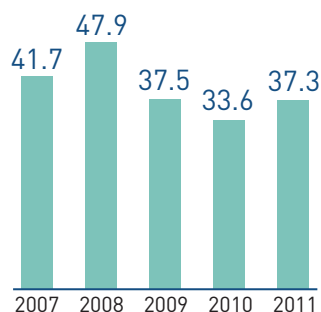
# Research & Development

At the Shin-Etsu Group, developing innovative technologies that distinguish our products from those of competitors is a priority. The objective is to supply products with greater added value to avoid competition based solely on prices.

In response to today's challenging operating environment, the Research & Development Department is moving faster to commercialize products from new research projects.

Identifying new themes is the first step in new research initiatives. Ideas for these themes are constantly submitted from throughout the Shin-Etsu Group. The New Z Committee, which is chaired by the top management,

R&D Costs (Billions of yen)



examines these ideas based on market size, growth potential, profitability, technological innovation, social contributions such as reducing carbon emissions, and other criteria. Progress toward commercializing selected

themes is checked periodically. Work is now under way on several research themes with the aim of introducing products as soon as possible.

The Shin-Etsu Group is well aware of the importance in its business operations of intellectual property such as patents and technological expertise. As of March 31, 2011, the Group had 5,224 patents in Japan and 6,167 overseas patents. This includes 210 patents obtained in the United States in 2010, which positions the Group in the top class among all Japanese chemical companies.

Number of Patents by Region

	Number of patents acquired during the year ended December 31, 2010	Cumulative number of patents acquired as of the end of FY2011
Japan	727	5,224
North America	212	2,272
Asia/Oceania	245	1,873
Europe	274	2,010
Other Areas	0	12
Total	1,458	11,391



**Dr. Hiroshi Komiyama**  
External director,  
Former President of  
The University of Tokyo

## Dr. Hiroshi Komiyama's Message

### My First Year as a Shin-Etsu Director

I have had the opportunity of serving as an external director of Shin-Etsu Chemical for one year. During this one year, I visited several Shin-Etsu Group plants. I went to the rare-earth magnet plant in Fukui Prefecture, the PVC plant in Ibaraki Prefecture and the silicon wafer plant in Fukushima Prefecture. If I include a tour of the silicone plant in Gunma Prefecture that I had previously visited when I was at the University of Tokyo, then, I have visited almost all of the Shin-Etsu Group's major manufacturing bases in Japan.

Shin-Etsu Chemical is a most excellent company, and I had heard for some time it is because of its superior management. The company definitely has superb management. I am particularly impressed with its management expertise that results in very strong earnings from products like PVC and silicon wafers that are produced in large volumes. I have found that its reputation

for strong management is very accurate. Japan has considerable creative manufacturing expertise. However, I have seen some Japanese companies start from nothing to become successful manufacturers and then lose their competitive edge when their products become commodities. The Shin-Etsu Group's ability to avoid this problem further underscores the excellence of its management. When I toured its plants, I was really impressed with how the strength of its creative manufacturing underpins the competitive power of Shin-Etsu's commodity products. I eagerly anticipate that Shin-Etsu's management methods will lead to the development of new products in the future. In closing, I would like to mention that during my first year as a director I learned much from and was greatly influenced by many people, including the other external directors.