

R&D



"R&D is a challenge in itself. Thanks to its technical prowess, LG Chem has led the domestic industry but now we are faced with the challenge of becoming a leader on the global market. Although there will be numerous difficulties involved in undertaking new areas of operations, the eventual rewards will be well worth the effort, and I sincerely believe that we can in fact become global leader.

We can directly attribute the startling results that we reaped in Information & Electronic Materials in 2002 to our R&D efforts in that field. Research & Development can be described as battle of speed. In other words, success depends on how quickly a company can develop new technology and new products. Up until now, we have demonstrated our advanced technology capabilities and value while leading the domestic petrochemical industry but that is no longer enough. We now have to compete on the world market. In order to achieve our goal of global prominence, we are fostering some of the world's finest and most competitive human resources, not only at home, but abroad as well; not only in petrochemicals, but in physics, biology, electronics and a variety of other essential areas. And these people are responsible for LG Chem's R&D efforts. In the belief that a global leader's competitiveness comes from bold, intensive and continuous R&D investments, LG Chem is concentrating capabilities on next-generation display systems, optoelectronics, bioengineering, environmental studies and other advanced areas."

Jong-Kee Yeo
President & CTO,
President of LG Chem Research Park



Selective, Intensive Development of Advanced Technology Efforts that Bear Fruit

The year 2002 was a very fruitful one for LG Chem R&D as well as for business activities as we continue to reap results from our efforts to become a global leader. In Information & Electronics Materials, we had initiated lithium-ion battery development in 1997 and sales in 2002 were triple those of the previous year. In addition, TFT-LCD polarizers took the stage as a core business area with sales for the year exceeding 140 billion KRW. During the year we also stabilized these production lines and developed a new low light leakage TFT-LCD for LCD manufacturers, our major clients. In Petrochemicals, we newly developed and introduced such specialty products as self-dispersive ABS, eco-friendly plasticizer, and high-performance transparent ABS. In a newly-named "e-process" effort, we scored promising results at our VCM Plant, and we plan to apply this new e-process in tandem with CFD, which is applied to the solution of engineering problems, to all LG Chem business areas as new technology platforms. In Industrial Materials, we developed a host of new high-performance products including compounded window profiles and sports floors.

Paving Roads to the Future

On the basis of these highly promising R&D results, we plan to increase R&D investments 14% to 150 billion KRW for 2003. Such investments will reinforce our technology platforms and contribute to a further increase in our technology leadership value.

In early 2003, we restructured our R&D organization in order to reinforce technology platforms and foster greater involvement in advanced, futuristic industrial activities. To these ends we established a new organization, Corporate R&D, or CRD. This clearly defines the roles at our Research Park between CRD and Business Units (BU) R&D: CRD is responsible for readying LG Chem's future activities while BU R&D is now responsible for strengthening the competitiveness of existing products and operations. Simultaneously, the two entities will conduct close cooperative efforts in support of each other. LG Chem is now conducting extensive research into nanotechnology, biotechnology and other advanced technology areas, and through leading technology in such areas as next-generation display components, semiconductor materials, optical materials, and functional materials, the company will step into the global forefront in product development as we pave roads to the future with experience, expertise, and excellence.

Research Facilities	Key Resear Development Areas	Location
Corporate R&D	Core Technology Platforms (Catalysis, Process, Analysis, Modeling & Simulation, Adhesive, Coating) New Business (Semiconductor materials, Organic microelectronics, Optical materials, Functional materials, etc)	Daedeok
Battery Research Institute	Lithium batteries (LiLB, LiPB)	Daedeok
Information & Electronic Materials Research Institute	Optical materials for displays, PCB materials	Daedeok
Industrial Materials Research Institute	High-performance industrial materials	Cheongju, Daedeok
Petrochemical Product & Process Research Institute	Specialty chemicals, Polymers (PVC, PE), Acrylates	Yeosu, Naju, Daedeok
Performance Polymers Research Institute	High-performance ABS & ASA, functional latex resins	Yeosu, Daedeok
Technology Intelligence Center	Intellectual property, technology intelligence, and IT services	Daedeok
Maryland Satellite Lab	Polymer processing Modeling	Maryland, USA
Compact Power Inc.	Lithium battery module for electric vehicles	Colorado, USA

