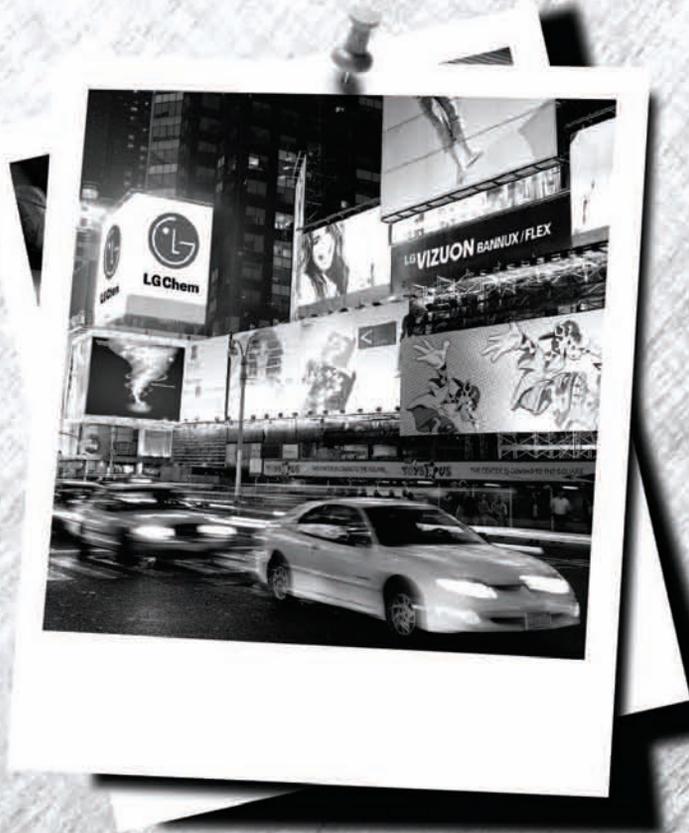


# FINDING SOLUTION

2008 Sustainability Report





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# Company Profile

## Overview

Company name	LG Chem, Ltd.
Address	LG Twin Towers, 20 Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721, Korea
Date established	Jan. 1947
Number of employees	16,254 (10,737 in Korea, 5,517 overseas)
Financial snapshot	

(KRW billion)		
Total assets	Total liabilities	Total shareholders' equity
8,036.4	3,146.7	4,889.7
Sales*	Operating profit*	Net profit
12,645.0	1,344.3	1,002.6

\* As of 2008 year-end (Excluding discontinued business of Industrial Materials)

## Main Products by Group

Petro-chemicals	NCC/PO	NCC products (ethylene, propylene), petrochemical products (PE, PP, etc.)
	Rubbers/ Speciality Resins	Synthetic rubber products, MBS as an impact modifier, SBS as an asphalt modifier Latex for paper coating or gloves, and BPA for epoxy resin
	PVC	Synthetic resins widely used in living and building materials, chassis, pipe, flooring materials
	ABS/EP	ABS resins and engineering plastics used in electric/electronic devices and automobiles
	Acrylates/ Plasticizers	High absorbent polymers, acrylates, and plasticizers used as raw material for paints and adhesives
IT and Electronic Materials	Mobile Energy	Lithium-ion batteries, lithium-ion polymer batteries
	Optical Materials	Polarizers, PDP filters
Industrial Materials	Electronic Materials	Phosphors, photo-sensitive materials, over coating materials for LCD, toners, OLED materials, electrolyte, printed circuit materials, cathode materials
	Housing Solutions	Construction materials, such as window products and glasses, and interior decorating materials for flooring, wall papering, tiling, etc.
	Living Solutions	High-gloss sheets, interior films, artificial marble products HI-MACS®, advertising materials
	Automotive Solutions	High quality fabric for automobiles, interior/exterior trims
	Interior Solutions	Home and office system furniture and interior wood as well as one-stop space layouts under 'DSQUARE' brand

## Sales Performance

(KRW billion)			
	2006	2007	2008
Petrochemicals	5,611.5	6,750.0	9,933.9
IT and Electronic Materials	1,597.0	2,133.3	2,695.7
Others	16.4	16.3	15.4
Total	7,224.9	8,899.6	12,645.0
Industrial Materials	2,055.1	2,144.4	2,090.7

\* Total figures exclude discontinued business (Industrial Materials)

## Affiliation with External Organizations

<p><b>Korea Business Council for Sustainable Development (KBCSD)</b></p> <ul style="list-style-type: none"> <li>Identify global industry trends in corporate sustainability management</li> <li>Partnership with WBCSD</li> </ul>
<p><b>Business Ethics and Sustainability Management for Top Performance</b></p> <ul style="list-style-type: none"> <li>A multilateral forum for disseminating ethical business practices and corporate culture</li> <li>Launched by the Institute for Policy Studies (IPS)</li> <li>Exchange of ethical management practices and information</li> </ul>
<p><b>Korea Association of Environmentally Friendly Companies</b></p> <ul style="list-style-type: none"> <li>Association of companies designated as being environmentally friendly</li> <li>Promote environmental management through seminars, workshops, etc.</li> <li>Yeosu, Cheongju, Ochang, Ulsan, Naju, and Iksan plants</li> </ul>
<p><b>Industry Associations</b></p> <ul style="list-style-type: none"> <li>Korea Petrochemical Industry Association, Korea Responsible Care Council, Korea Chemicals Management Association, Korea Automobile Manufacturers Association, Korea Mech. Const. Contractors Association</li> <li>Discuss ways to address industry-specific issues</li> </ul>

# CEO Message

Dear stakeholders,

The current business landscape poses formidable challenges even to leading global enterprises amidst financial turmoil and unprecedented recession that began sweeping the world from late last year. However, LG Chem has stayed unperturbed, posting its highest earnings in 2008 and even joining the club of high-performers, recording KRW 1 trillion in net income.

Such performance excellence was driven by our consistent pursuit for Speed Management, but was fundamentally enabled by the warm interest and support of our stakeholders. In these times of hardship, we come to realize once again the importance of 'sustainability management' for ensuring continuity of businesses and as such, the sustainability report we are publishing this year brings renewed significance to all of us.

The year 2008 was the time of 'change' and 'take-off' for LG Chem- a time for us to adopt a proactive approach in addressing and resolving global environmental and energy concerns such as climate change and more rigorous controls on chemical materials.

For example, we are bringing 'change' as a leading supplier of rechargeable batteries for electrical vehicles- the green choice for next-generation automobiles- under a supply contract signed with GM for advanced automotive batteries in electrical vehicles. To drive a new 'take-off', we have built a platform to make inroads into the polysilicon business, a core material for solar cell substrates.

Looking ahead at the next 100 years and beyond of a sustainable future, we recognize contributing to environmental preservation as a key social responsibility and are thus accelerating the delivery of eco-friendly solutions. In particular, we completed the pre-registration of the substances LG Chem produces or sources to respond to REACH, a new regulatory regime of the EU governing chemical substances. Furthermore, we implemented a pilot in-house emission trading for climate change to set out on a journey towards 'Low Carbon, Green Growth'- a new vision the government has put forward for the future.

Moreover, LG Chem will continuously strive to find solutions to overcome the current economic hardship and build prosperity among ourselves and our stakeholders. We aim to tackle the difficulties without enforcing lay-offs or restricting new job opportunities, and promote win-win collaboration through extending financial assistance and reinforcing competitiveness of our business partners.

As a responsible corporate citizen, we will not neglect our duty to grow and progress together with our communities. In 2008, we took the initiative to reach out to our neighbors in need, to provide quality learning opportunities for the youth and to help our local communities. We set up a dedicated division for social contribution activities to embed a more systematic approach in community service and launched a social volunteer group comprising 5,000 volunteers who share a worthy cause. Our dedication is a reflection of our unchanging conviction that high spirit and consistent support are needed especially during hard times.

LG Chem will stay committed to sustainable prosperity of society through these endeavors. Viewing communication with the stakeholders as a critical tool for delivering continued growth, we have therefore put a strong emphasis on facilitating stakeholder communication and fully incorporating their needs in this year's report.

Dear stakeholders,

Building on last year's performance to emerge even stronger from the current crisis, we will continue to challenge ourselves to consolidate our leadership as a flagship chemical enterprise of Korea and raise our profile as a global shaper that is respected and trusted by our customers, shareholders as well as people of and beyond Korea, all through our unwavering pursuit for sustainability management. We ask for your continued support and encouragement in our endeavors.

Thank you.

*Bahn Suk Kim*

April 2009

Vice Chairman & CEO, LG Chem Bahn-Suk Kim





*+ Identify changes in the market, customers*  
*+ prepare plans ahead*

# ANTICIPATE CHANGES EARLY

Identifying changes in the marketplace early on and building responsive strategies and action plans by delivering new product offerings—such as highly functional, next-generation innovative materials, in order to stay ahead of competition.





# Early



Reduce the time to

# Fast



# ANTICIPATE + Focus on core tasks RESULTS FASTER + respond to customers

Improving the speed for decision-making through smooth organization and operation, upgrading the corporate culture of meetings and reports, and reducing our response time to customer inquiries, such tasks should include new product development, spec-in acceleration, quality and cost improvement.





*Check and review progress*

*Establish clear KPIs*

+

+

# FREQUENTLY EVALUATE

Checking and reviewing the status of implementation on a real-time basis to accelerate execution and performance creation, thereby achieving management objectives and materializing our vision

# Real Time



## Sustainability Communication

11\_ 2008 Sustainability Report

12\_ Materiality Test

13\_ Stakeholder Communication

14\_ 2008 Highlights

# SUSTAINABILITY COMMUNICATION

Communication with stakeholders is the most fundamental enabler of sustainability management. LG Chem will continue to engage with our stakeholders in the process of sustainability reporting as well as managing our business activities to advance our growth and help build a sustainable world.

# 2008 Sustainability Report

This is the third sustainability report issued by LG Chem. This report has enabled LG Chem to facilitate stakeholder communication and internally diagnose how much the company has progressed in sustainability management.

## Key Features

Through this sustainability report, LG Chem brings a transparent disclosure to its sustainability management activities and performance in accordance with the reporting guidelines of the Global Reporting Initiative (GRI). In particular, we formed the foundation of this report with the results of the materiality test we conducted to more faithfully incorporate stakeholder views in our report.

We have improved access to this report for the visually challenged readers via application of a text-to-speech engine called Voiceye. Also, we have published a summary version of the sustainability report (the Korean edition) containing key issues in economy, environment and society to improve readability.

## Scope

This report covers the period from January 1 to December 31, 2008. Performance data from 2006 and 2007 were also disclosed when it became necessary to show historical trends. The report covers our head office in Seoul, eight plants in Korea (Yeosu, Cheongju, Ochang, Ulsan, Gimcheon, Naju, Iksan, Daesan) and LG Chem Research Park (Daejeon). The Industrial Materials Group was spun off from LG Chem as of April 1, 2009. However, it was included in the reporting scope as this report discloses performance for the year 2008.

For the interest of the stakeholders, however, corporate-level revenue and operating profit do not include the results from discontinued Industrial Materials business.

## Guidelines and Publication

This report, prepared based on the G3 Guidelines of the GRI, is available in both Korean and English along with the Korean summary report. The report can also be viewed from our website at "<http://lgchem.co.kr>". (The 2007 Sustainability Report published in August 2008 is the most recent report of LG Chem.)

## Report Writing Process

To draw up this report, a sustainability report taskforce team was set up with relevant sectoral process owners. The taskforce conducted the materiality test and media research and organized a workshop to share the results and select what issues to include in the report.

This report has been assured by a third-party assurance provider to secure reliability in the information, data and processes contained in this report. You can review the assurance report in page 88-89 of this report.



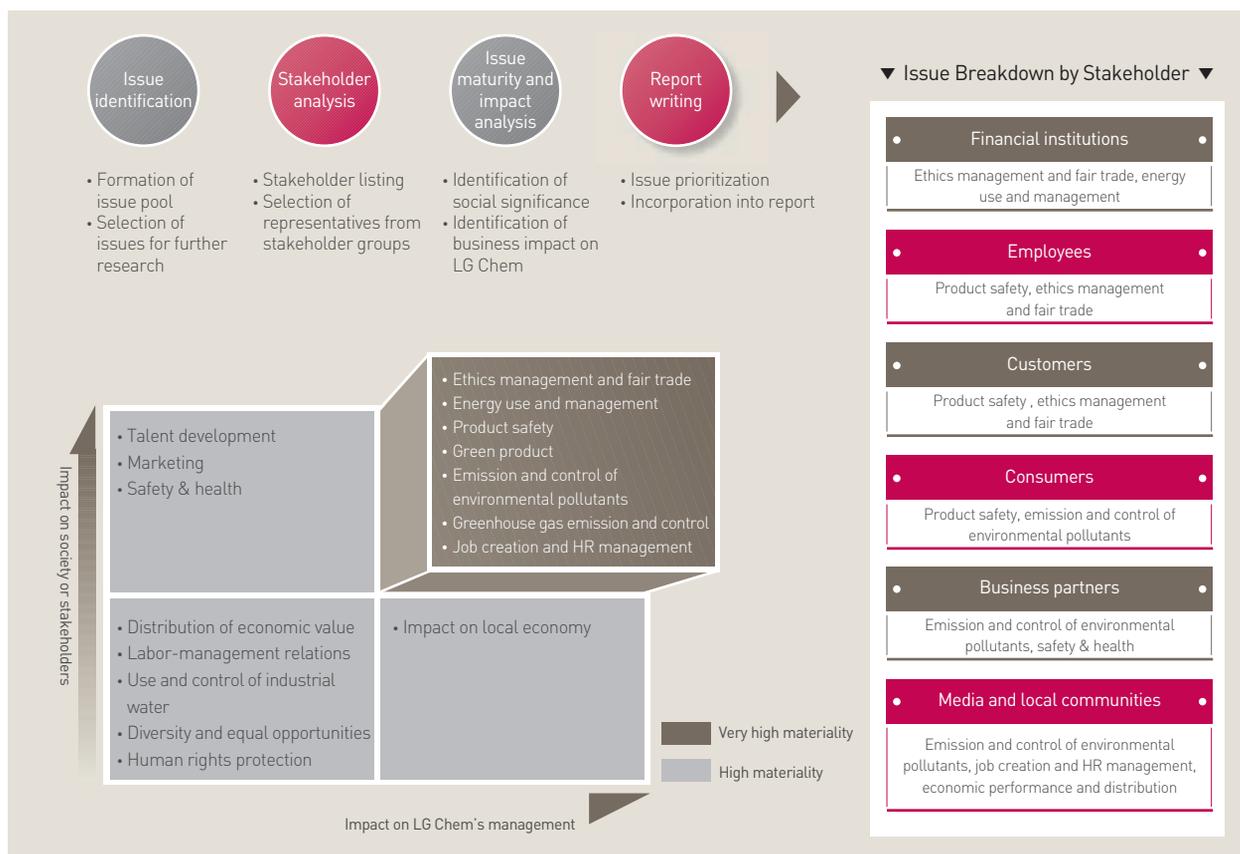
# Materiality Test

LG Chem conducted the materiality test to identify issues that are important to stakeholders, based on a belief that a sustainability report is the most valuable channel for facilitating communication with our stakeholders.

Materiality test was performed largely in four stages. In the first stage, we identified issues relevant to sustainability management. We formed a pool of sustainability issues using media research results and with reference to the guidelines of the GRI and the UN Global Compact. Then the taskforce team sorted out issues for further research through discussions. In the second stage, we performed a stakeholder analysis. After selecting key stakeholder groups of LG Chem, we carried out a research on our 3,639 stakeholders. In the

third stage, we engaged with our stakeholders to gauge social significance and business impact to LG Chem by issues to determine their priority. In the fourth stage, we incorporated key issues we have screened from the previous three stages in the report.

As a result of the materiality test, product safety, green product, environmental emission management, energy and greenhouse gas management, ethics management and fair trade were selected as our material issues. For this report, the reporting level and page volume for individual issues were determined in line with the outcomes of the materiality test. We plan to report issues online with relatively low materiality via our homepage once the materiality test process becomes fully entrenched.



# Stakeholder Communication

Stakeholder communication is a critical driver for LG Chem to grow sustainably through balanced pursuit of environmental, social and economic progress and contribute to building a sustainable society.

Communication with our stakeholders is a key to promoting sustainable development of LG Chem and of the wider society, while maintaining a focus on bringing balanced benefits in the triple bottom line, i.e., economic profitability, social responsibility and environmental soundness.

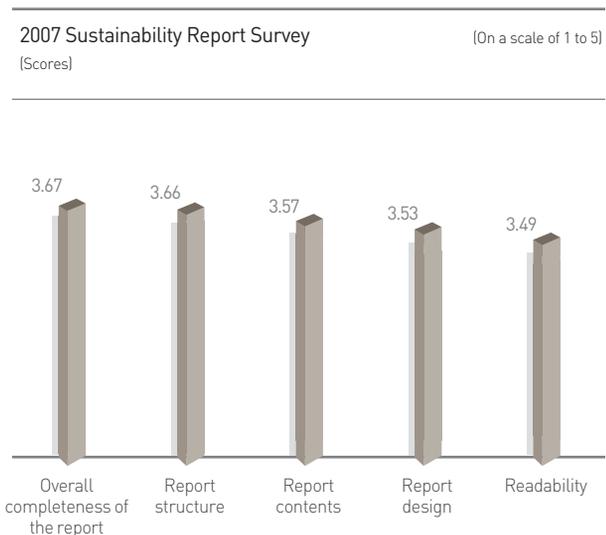
This emphasis has prompted LG Chem to broaden communication channels with stakeholders and increase engagement with each stakeholder group. For example, we have brought more rigors to employee satisfaction surveys and are involving consumers early on from the product development phase. We also make sure to engage with local communities to identify their needs before we roll out local community service programs. Sustainability reports are a valuable tool for stakeholder communication. Hence, we have further strengthened stakeholder surveys for this year's report compared to the past.

We surveyed a total of 3,639 stakeholders. By stakeholder group, there were 16 shareholders and investors, 2,763 executives and employees, 150 customers, 51 business partners, 29 from the media, local communities and the academia, 15 from the government and institutions and 615 from the general public. The number of samples taken varied by group, but equivalent weights were applied in evaluation considering the significance of each stakeholder group.

In the survey process, we listened to their voice on LG Chem's sustainability report and sustainability management activities. Overall satisfaction with the report was 3.67 points out of 5, with 3.57 points given for the report contents, 3.66 points for the structure and 3.49 points for readability. Based on the feedback, we aimed to improve overall satisfaction with the report, especially putting a focus on improving readability and expanded the size of tables and graphs for visibility.

## ▼ Stakeholder Communication ▼

Stakeholder	Activity
Shareholders/investors	Corporate IR
	Disclosure
	Credit evaluation
Employees	Labor-management council
	Customer satisfaction survey
Customers	VOC process
	Customer satisfaction survey
	Mystery shopping at LGIC PL monitoring
Local communities	Community outreach
Citizens	Website
	Company newsletter
Business partners	Briefings for business partners



# 2008 Highlights

## Reaching New Highs in Performance

In 2008, LG Chem posted revenue of KRW 12,645.0 billion and operating profit of KRW 1,344.3 billion (excluding discontinued business of Industrial Materials that was spun off on April 1, 2009). We reached new highs in our business performance, mainly enabled by sales growth from increased demands for synthetic resins such as synthetic rubber, acryl, Oxo-Alcohol, and PVC and new customer acquisition, volume growth in the sales of high value-added products, and aggressive cost saving initiatives in IT and Electronic Materials Company.

## Vice Chairman Bahn-Suk Kim, Winner of the Global CEO Award

Vice Chairman Bahn-Suk Kim won this year's Global CEO Award for his significant contributions to improving national competitiveness of Korea's petrochemical industry with his decisive pursuit for technology and overseas investment. This award is given by the Korean Academy of International Business to the top managers of the companies that have successfully built presence in foreign markets.

## Mass Production of Elastomers

For the first time in Korea, LG Chem successfully developed a high value-added synthetic resin called elastomer purely based on our proprietary technology and launched mass production in earnest. This marks a critical turning point as Korea can now localize production of elastomer which has been fully imported from abroad until now. As a polyethylene elastic polymer containing rubber and plastic properties, this highly elastic, value-added synthetic resin can replace synthetic rubber used in impact modifiers for automotive bumpers and in building soundproofing.



## Acquisition of Kolon SAP Business

LG Chem acquired a superabsorbent polymer business (SAP) from Kolon in June 2008 to sharpen our competitive edge in the petrochemical industry and secure a bridgehead in overseas markets through M&As. Capitalizing on our proprietary process technology at LG Chem, we aim to build global leadership by expanding production capacity by more than five times until 2015 and deepen our revenue in the acrylic acid and SAP business over KRW 1.5 trillion.

## Leading Supplier of Eco-Friendly Lithium-Polymer Batteries

Lithium-polymer batteries are next-generation, secondary batteries with superior stability and excellent energy efficiency for drastically lowering greenhouse gas emission. As a leading, socially responsible developer of lithium-polymer batteries with a goal to contribute to greenhouse gas reduction, LG Chem was selected by Hyundai Motor Company and Kia Motors Corporation as a lithium-polymer battery supplier for their hybrid automobile application. Moreover in February 2009, we became the sole battery supplier for Chevrolet Volt- a hybrid model produced by GM.

### Grand Prize Winner of Sustainability Report Award

We became the grand prize winner for our 2007 sustainability report for KMAR 2008 Global Green Management Awards in the sustainability report category. This award scheme, introduced in 2006, evaluates and selects winners based on the structure and completeness of the report, the quality of reporting and the effectiveness of communication

### Launch of Social Volunteer Group

LG Chem's Social Volunteer Group officially set sail with 240 executives and employees onboard. With Vice Chairman & CEO Bahn-Suk Kim taking the helm, this volunteer organization declares an enterprise-wide commitment to systematic and continuous social contribution activities. The voluntary began their service in July 2008 with 'The Classroom of Hope' project at a community service center in a local Seoul district.



### Pilot Implementation of In-house Emissions Trading

Under the MOU for internal emissions trading system signed with the Ministry of Knowledge Economy in February 2006, we set up an in-house emission trading framework in 2007 and introduced the pilot trading scheme for 5 production teams in the Cheongju plant. We plan to roll out this in-house emissions trading system across all sites in 2009.

### Three Consecutive Year Winner of the Korea Management Awards-HR Management Category

LG Chem won the top prize in the Korea Management Awards-HR management category given by the Korea Management Association Consulting for three years in a row. This award scheme aims at recognizing high-performing companies regarding talent management, corporate culture and great workplace and disseminating best practices. Our consecutive win comes as a result of our incessant endeavors in talent management and building global organizational competence, with the belief that the greatest asset of a company is people.

### Completion of the REACH Pre-Registration

LG Chem has completed pre-registration of 1,534 substances directly exported via our 200 parts suppliers at home and abroad and indirectly exported to the EU through our customers, in order to respond to the Registration, Evaluation, Authorization and restriction of Chemicals (known as REACH) that took effect as of June 1, 2007. With the pre-registration in place, the EU importers that use or formulate substances, polymers or preparations of LG Chem in their export to the EU are now recognized as the downstream users of LG Chem and can continue their EU exports under the REACH regulation. In order to complete the registration going forward, LG Chem plans to engage in interactive communication with our business partners and customers, and enhance internal competence to develop documentation required for the registration (such as Technical Dossier, Chemical Safety Report and Safety Data Sheet), and partake in the SIEF activities .

## Sustainability Management System

18\_ Sustainability Management Vision

20\_ Corporate Governance

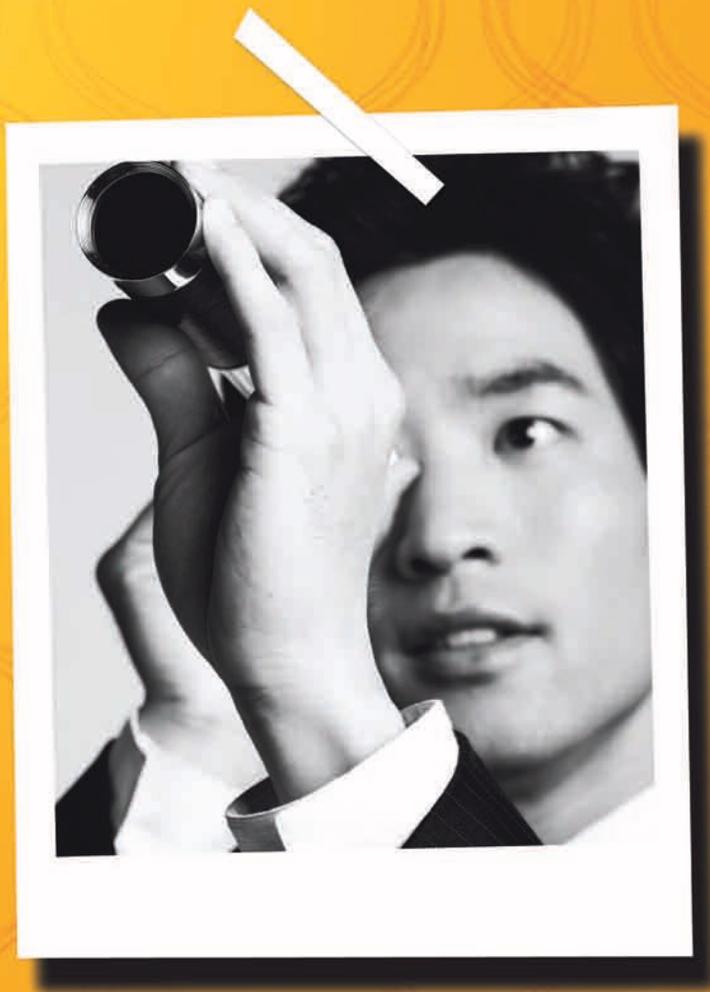
22\_ 'Jeong-Do' Management

24\_ Corporate Culture

26\_ Risk Management



# Sustainability



# Seeking the true way in LG Chem

LG Chem is consistently striving to become a global company that is trusted and acknowledged by customers, favored by investors, preferred by talent, and loved and respected by society.

# Sustainability Management Vision

LG Chem helps to build a sustainable world through balanced pursuit of environmental, social and economic progress.

## Vision

Our vision is to become a global leader that grows with its customers through delivery of innovative materials and solutions. Mutual growth with our customers is indeed the *raison d'être* of LG Chem and a force that propels us to become a world-class company. LG Chem will make dedicated endeavors to grow into a company that is trusted and acknowledged by customers, favored by investors, preferred by talent, and loved and respected by society.

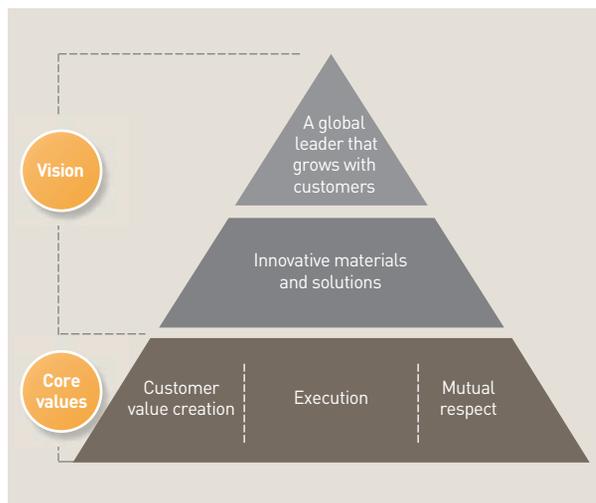
## Core Values

Core values set the standards of conduct and judgment that everyone at LG Chem shares to materialize the vision. 'Customer value creation', 'execution', and 'mutual respect' define the core values of LG Chem. More specifically, we drive 'customer value creation' based on deep insight in customers and market. We set clear goals and measures based on harsh reality check and attain the goals through systematic 'execution'. And finally, we pursue 'mutual respect' for acknowledging differences amongst our people to build trust and teamwork.

## Speed Management for Sustainable Growth

Speed Management enables acceleration of execution and organizational transformation with a focus on the market and customers to produce outstanding performance and realize our vision. There are three core Speed Management initiatives-reinforcing core business, innovating customer value and enhancing organizational capability-of which are executed through an 'early', 'fast' and 'real-time' approach.

### ▼ Significance of Vision ▼



### 【 Early 】

Being early means thinking and staying ahead of others-capturing market trends 'early' on and establishing targeted strategy and action plans- to launch new products such as high-function, next-generation materials ahead of competition.

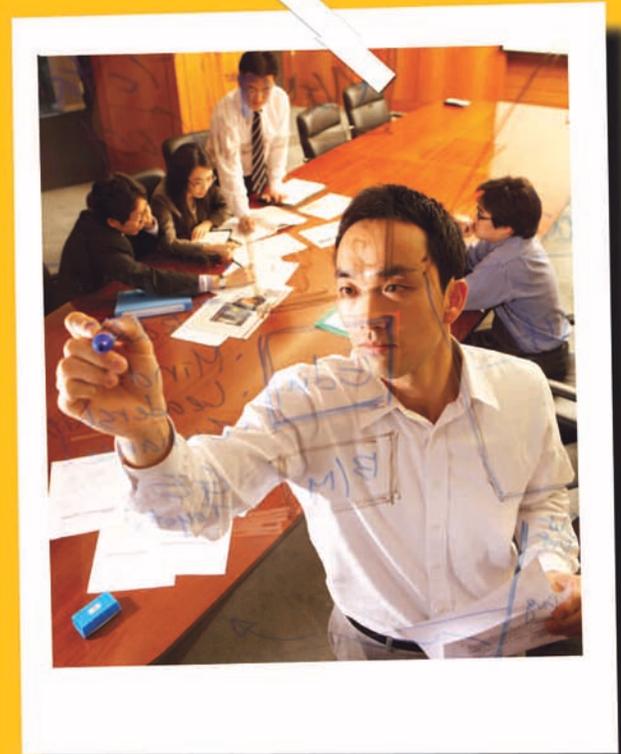
### 【 Fast 】

Being fast is about focusing on the core to accelerate performance creation. This is to increase the speed of decision making through streamlining organization and operation, and changing the corporate culture for reporting, meeting, and leaving the office at the end of day. The aim is to reduce our lead time in responding to customer needs, e.g., new product development, spec-in acceleration, quality and cost improvement.

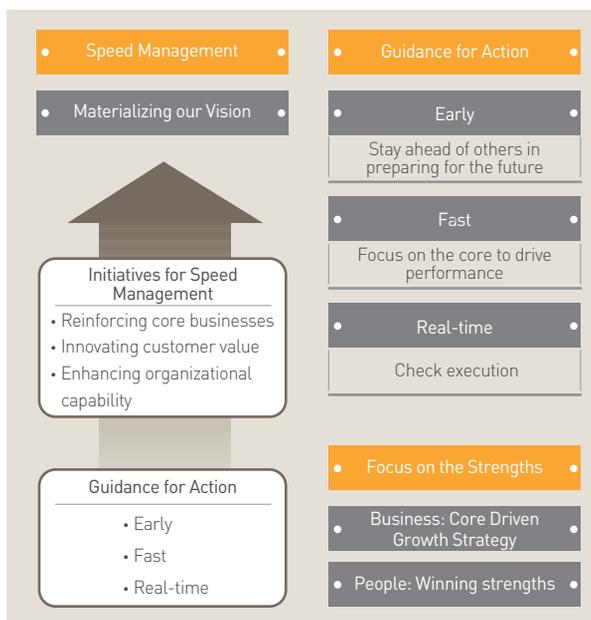
【 Real-time 】

Being real-time means checking our progress as frequently as possible to accelerate execution and performance generation with an ultimate goal of achieving management objectives and materializing our vision.

Speed Management requires us to concentrate on our core strengths to drive excellence in performance. In business management, we are deploying the 'Core Driven Growth Strategy' to focus our time and effort on our core, competitive business areas. In people management, we identify and further reinforce the winning strengths in our people. Such approach will enable LG Chem to drive sustained excellence in performance to position as a true global shaper in the marketplace.



▼ Speed Management for Excellence in Performance ▼



# Corporate Governance

We drive transparency in corporate governance to build a firm basis for sustainability management.

## Improvement in Corporate Governance

To ensure sustainability of LG Chem, we stress accountability of the management, impartiality of the board of directors and the audit committee, and transparency in information disclosure to establish efficient and transparent corporate governance.

The adoption of a holding company structure by LG Group in 2003 brought significant improvements as follows: removal of cross-shareholding; correction of distortions in the ownership structure caused by discrepancies in ownership interests and voting stock; reinforcement of internal and external checks and balances; and empowerment of minority shareholders. The holding company framework has helped eliminate the possible risk of a group-wide insolvency and deepened transparency in corporate governance. With Vice Chairman Bahn-Suk Kim at the helm of LG Chem since 2006, highly qualified, experienced outside directors have been additionally appointed with greater autonomy given to the board and the audit committee, which all has enabled enhancement of corporate governance as well as corporate and shareholder value.



▲ Board of Directors

## Board of Directors

There are a total of 8 directors presently sitting on the board at LG Chem, with five outside directors. Our independent directors come from various fields of expertise and experience, e.g., law, chemical science and finance, and take on a vital role for LG Chem. They monitor and check the management on key issues of corporate operation and present impartial views to ensure effectiveness in decision making.

Our board meets regularly according to prearranged annual plan and extraordinary meetings are also called to deal with urgent matters as they arise. A total of eight board meetings were held in 2008, with the average attendance rate of the directors at 93%. To support the board in undertaking their role as the highest decision-making body for LG Chem, we have placed the board secretariat directly under the legal team. The secretariat and relevant divisions directly report key management issues to the independent directors prior to the board meetings. This helps the directors make informed and comprehensive analyses and reviews and perform objective evaluation and supervision on major management issues.

In addition, our articles of incorporation and board regulations disallow directors to exercise voting rights if there is a potential conflict of interest.

Furthermore, the board members regularly visit our site facilities in Yeosu, Cheongju, Ochang of Korea as well as those in China to gain a hands-on perspective into company operations. Newly appointed directors are given chances to attend professional external trainings and seminars to improve their job skills associated with their roles and responsibilities.

### Corporate Management Committee

Our Corporate Management Committee meets every month to discuss and deliberate on key issues at the corporate level. The committee, chaired by the CEO, is seated by the CFO, CHO, key corporate staff executives, representatives from each Business Company and residential executives of the plants. It serves as a forum for sharing sector-specific management results and discussing key risk factors and mitigation measures. Company directions are discussed and agreed by the committee twice a year - for mid- to long-term strategies in the first half, and business plans in the coming half of the year. The members also address counter-measures for legal and institutional changes and corporate issues regarding system set-up and changes.

With a rising interest in environmental management and regulatory movements, the committee convened in 2008 to review our status in preparation, action plans and pre-registration for Registration, Evaluation and Authorization and restrictions of Chemicals (REACH) in the EU.

### Audit Committee

With a view to secure transparency and impartiality of the audit committee, all three of the committee seats are filled by outside directors including the committee chairperson Kon-Sik Kim. The committee meets on a quarterly basis to plan and implement internal audit plans, evaluate the results and improve the process in an independent manner. The committee is annually briefed on the settlement of accounts by an external auditor, receives external advice on internal monitoring mechanism to conduct objective evaluation and gets reported on plans for management audits. The committee indeed fulfills their function as a supervisory body as well as a watchdog for the management. External auditors go through a rigorous fit and proper test before they are appointed, with their expertise, impartiality and social reputation taken into consideration. Our internal control system is utilized to annually assess operational performance and future plans of the board and the audit committee to strengthen corporate governance.

### Nomination Committee for Independent Directors

LG Chem appoints outside directors with recommendations from the Nomination Committee for Independent Directors to guarantee their independence and autonomy. The Nomination Committee-comprising one inside and one outside directors-unanimously decides to recommend qualified candidates with expertise and impartiality to the general meeting of the shareholders for approval and formal appointment. Incumbent outside director is assured of his or her say in the nomination process for new outside directors.

#### ▼ Board Members ▼

Category	Name	Key career experience	Role
Inside director	Yu-Sig Kang	Vice Chairman & CEO of LG Corp. Director of LG Electronics Inc. Director of LG International Corp.	Chairperson of the BOD Chairperson of the Nomination Committee for Independent Directors
	Bahn-Suk Kim	Vice Chairman & CEO	CEO
	Suk-Jeh Cho	Vice President & CFO	CFO
Outside director	Ho-Soo Oh	Former Chairman of Korea Securities Dealers Association Outside Director of Redcaptour Corp. Senior Advisor, Shin & Kim Senior Advisor, Atinum Partners	Auditor
	Il-Jin Park	Former CEO of Dow Chemical Korea CEO of IJ International corp	
	Sang-Hyung Ahn	Professor, College of Business Administration, Seoul National University	Member of Nomination Committee for Independent Directors
	Kon-Sik Kim	Professor and Dean, School of law, Seoul National University	Chairperson of Audit Committee
	Young-Moo Lee	Professor, School of Chemical Engineering, Hanyang University	Auditor

# ‘Jeong-Do’ Management

LG's unique application of ethics through fair management practices and constantly developing our business skills.

## Our Milestones in 'Jeong-Do' Management

LG has continued to achieve significant milestones in its journey towards 'Jeong-Do' Management since officially declaring in 1995 a commitment to 'Jeong-Do' Management that embodies the spirit of ethical management. Our milestones include the adoption of a holding company system in 2003 and the declaration of LG Way in 2005.



## Resolute Commitment from the CEO

Everyone at LG Chem shares the CEO's firm commitment towards 'Jeong-Do' Management. Together we value integrity and a spirit of fair competition- especially during tough times that may tempt one to take shortcuts in attaining goals- and advocate highest ethical standards and Speed Management to drive sustainable performance and build global competitiveness.

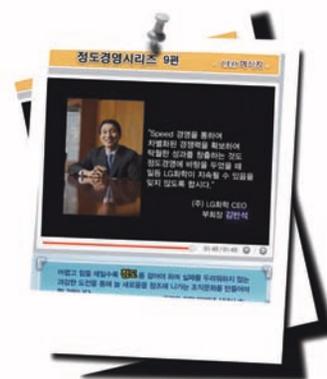
## Action Programs

【 Process Owner: Ethics Office 】

Reporting directly to the CEO, the Ethics Office is mandated to prevent irregularities and wrongdoing and to embed 'Jeong-Do' Management across organization through a violation reporting system (ethics hotline, gift receipt reporting system), trainings and promotional activities to educate our employees and business partners. Moreover, ethics offices are set up at each plant and business company to translate 'Jeong-Do' principles into practice- e.g., conducting tailored promotional and educational activities and identifying and addressing unfair business practices. In 2008, we installed the 'Q&A for Jeong-Do Management' on our company Intranet to help our executives and employees seek advice on their queries and ethical dilemma that they often come across in their daily work.

【 Education and Training 】

Online and offline trainings for 'Jeong-Do' Management are available to all executives and staff in domestic and overseas subsidiaries and offices. Theoretical courses and actual case studies of ethical violations are taught along with intensive trainings provided to remind people to comply with ethical rules that often get easily neglected in their duty. The trainings are designed to firmly entrench 'Jeong-Do' Management in our corporate culture and increase our ability for execution.



In particular, video trainings called Jeong-Do' Management Series of LG Chem- conducted a total 9 times via our Intranet- were proved to be very useful in improving the mindset and attitude of our people for 'Jeong-Do' Management.

We also organize regular gatherings with our business partners to share commitment to 'Jeong-Do' Management of LG Chem so as to encourage them to share the spirit and foster fair business practices.

## ▼ Training Records for 'Jeong-Do' Management ▼

[Off-line]

	2006	2007	2008
Employees & executives (persons)	842	1,426	2,068
Business partners (each)	146	262	520

【 Ethics Hotline 】

The Ethics Hotline, a reporting system for violations against 'Jeong-Do' Management, receives reports regarding those executives and employees that use their advantageous position to engage in wrongful business conduct and bribery, along with any violations to the LG Code of Ethics. Confidentiality of the informants is strictly protected however, if the informants should suffer any disadvantage as a result, then actions are taken to reinstate their positions or to offer due compensations. A total of 13 reports were filed to the Ethics Hotline in 2008.

▼ Number of Violations Received ▼

	2006	2007	2008
Number of cases received	23	21	13

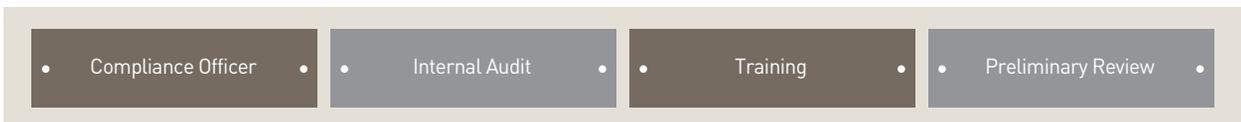
【 Gift Receipt Reporting System 】

No one at LG Chem is allowed to accept money or gifts from any stakeholders under any circumstances and is expected to politely refuse or return any gifts. If an employee finds it rude or practically impossible to return the gift, then he or she must voluntarily report the case to the Ethics office within 3 working days as per the reporting guidelines and submit the received gift to the company. Such reported goods are then converted into cash through internal auctions and donated to social welfare organizations for a worthy cause.

▼ Internal Auction of Reported Goods ▼

	2006	2007	2008
Number of auctions	2	2	1
Donations to welfare facilities (KRW 1,000)	3,020	2,000	950
Number of facilities supported	8	4	1

▼ Compliance Program ▼



**Fair Trade**

LG Chem rules out all possible expedient means for pursuing short-term results such as unfair business activities and violations of laws. We engage in fair trade to foster longer-term, sustainable competitiveness.

【 Compliance Program 】

The Compliance Program (CP) for fair trade is our internal system to ensure organizational compliance with fair trade laws and regulations. The program takes a preventive approach to violation through employee training and presenting guidelines on their conduct, as well as a proactive approach through regular audits to detect and redress violations.

【 Performance of the Compliance Program 】

LG Chem reports annual operational plans and performance of the CP to the board of directors every year. In 2008, internal audits and trainings pertaining to the Fair Trade Act and the Fair Subcontract Act were carried out across four business divisions and five plants at LG Chem. In particular, a special focus was placed on the prevention of cartel in the sales area. On the purchasing front, 'The Agreement on Fair Subcontract Transaction' was reached with small-and medium-sized suppliers to not only ensure conformity but also enable parallel partnership for mutual growth. All overseas sales teams based in Korea underwent internal audits and trainings to eradicate unfair business activities in exports. In addition, our worksites in China and Japan undertook trainings on anti-cartel and relevant local laws and regulations so as to build a fair business culture in international business deals.

▼ Compliance Program Activities ▼

	2006	2007	2008
Number of internal audits	6	7	6
Number of training sessions	4	7	10
Number of preliminary reviews	61	50	21

# Corporate Culture

Culture transformation of LG Chem is focused on internalizing ‘Speed Management’, which is based on LG Way. We are building a culture that emphasizes ingenuity and execution to enhance global organizational capability and performance.

## Corporate Culture Transformation

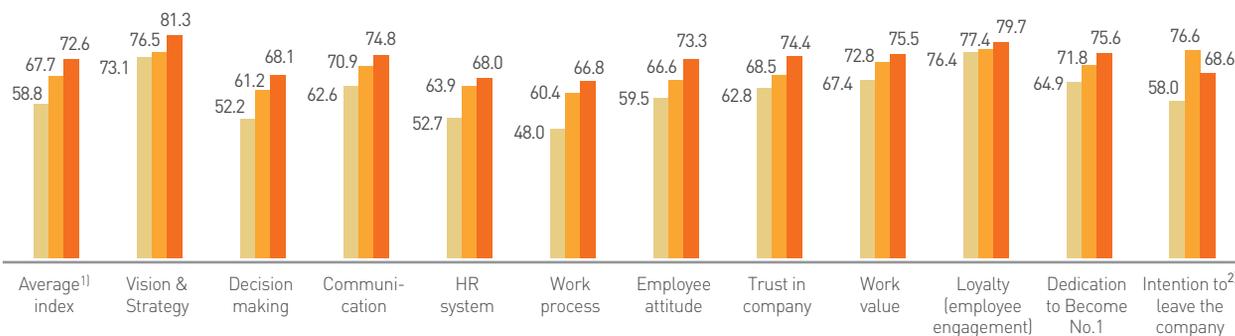
Based on LG’s core value of LG Way, LG Chem is stepping up efforts to redefine its corporate culture by internalizing ‘Speed Management’ (earlier than competitors, faster than competitors, more ‘real time’-ly than competitors). Through work value enhancement, employees have pride in their jobs and focus on core tasks that are related to customer value creation. The transformation of our infrastructure and corporate culture encourage talents to apply their capabilities to the maximum based on ‘ingenuity and autonomy’.

Our annual LG Chem Culture Survey, which began from 2006, continues to indicate an upward trend, with an average score of 72.6<sup>1)</sup> for 2008. Positive changes were noted in the following areas as a result of consistent communication: understanding of vision and strategy, trust in management and company, communication and employee attitude. Results were also encouraging for work value, employee engagement, and dedication to become No.1. However, opportunities for improvement were identified as follows: work process-requiring a systematic approach in improvement; leadership competence-achievable through ensuring fair evaluation and compensation; and employee retention-which calls for continued interest. Based on the research, we will continue to transform our corporate culture to enhance the abilities of our employees and produce strong business results going forward as well.

LG Chem Culture Survey

(Scores)

■ '08 (N: 4,578)  
 ■ '07 (N: 3,933)  
 ■ '06 (N: 3,663)



1) The average index of 72.6 is an average value of sub-level factors in each element.

2) Intention to leave the company

-Questions: ('06/'08) 'I have intentions to move to other companies if given a chance.' ('07) 'I wish to stay with our company.'

-Due to changes in the questions, the differential between '07 index and '08 index cannot be seen as a 'drop.' (comparison between '06/'08 indices points to an increase)

-The indices for negative questions are converted into positive indices. As such, the higher figure is better.

**LG Way-Based Speed Management Internalization**

Market and customer provide a basis for Speed Management, which is designed to enhance business competitiveness. The power of market-and customer-oriented execution can be attained by anticipating changes earlier than competitors, achieving results faster than competitors, reviewing progress more 'real time'-ly than competitors and creating values for customers through 'Solution Activities'.

We organize workshops for executives and team leaders (four times a year for executives, twice for team leaders) to check progress on Speed Management and to facilitate execution for performance generation by identifying and sharing best practices.

**Enhancing Organizational Capability based on Leadership**

Transformation of a corporate culture is driven by leaders including the CEO. Fortified by the CEO's firm commitment to organizational transformation, LG Chem supports for the improvement of leadership skills through periodic leadership surveys, coaching and leadership training programs. In addition, leadership workshops for executives and team leaders are offered to facilitate interactive communication in setting the direction of management policy, strategy and sharing important issues of LG Chem.

'Trust' is a key basis for redefining the corporate culture of LG Chem. Indeed, 'trust' is synonymous with 'mutual respect' - acknowledging differences and being considerate and respectful of each other. This core value is essential in enhancing performance and building 'Teamwork', that is one of unique strengths of LG Chem.

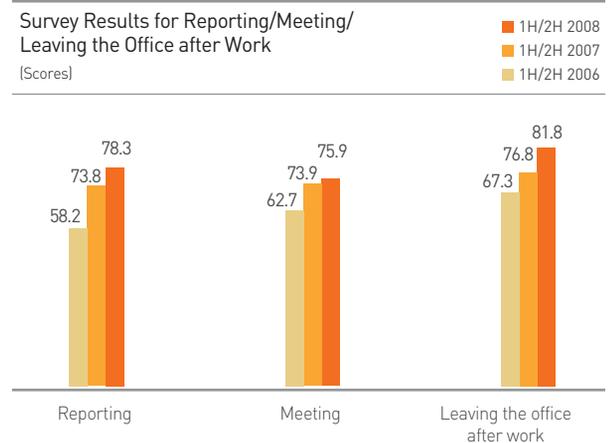
With a goal to cultivate trust-based leadership qualities, leadership training programs for team leaders have been conducted since 2006. Results of annual leadership and culture surveys are also reflected in the training curricula to improve relatively low skill areas and reinforce strong areas, with an aim to build a corporate culture of 'ingenuity and autonomy' based on the leadership of trust. (Themes of leadership trainings for team leaders - People Care for 2006, Fairness for 2007, Ingenuity for 2008).

**Focusing on Core Tasks and Enhancing Work Value**

Work value enhancement is the result of a focus on core tasks (by reporting/meeting/leaving the office culture transformation) based on the concept of 'faster than competitors' under Speed Management. Personal developments through work and the accumulation of work experience also contribute to higher work value, which in turn boost job satisfaction and spurs individual developments.

LG Chem periodically assesses the employees' views on work value through the LG Chem Culture Survey and theme-based surveys (reporting/meeting/leaving the office after work). We also lend support to promote diversity at our workplace using feedback from each business company. We are also working to streamline our business process by eliminating inefficiencies in the reporting and meeting process so that individuals can concentrate on their core tasks and increase their individual work value.

▼ Building a Corporate Culture of Ingenuity and Autonomy ▼



# Risk Management

We mitigate business uncertainties based on a stable risk management mechanism and are enhancing transparency through an internal control system.

## Progress in Risk Management

In the face of escalating uncertainties in the business landscape, incidents that undermine corporate value are often translated into disastrous outcomes for business management. Our Enterprise Risk Management (ERM) was introduced against this backdrop to proactively identify internal and external risk factors and predict and control their impact to maximize corporate value.

## Risk Management System

Our risk management system has three tiers- routine management by the risk owners (1st level), integrated management by the risk-managing organization (2nd level) and the supervisory function of the board of directors (3rd level).

## Risk Management for 2008

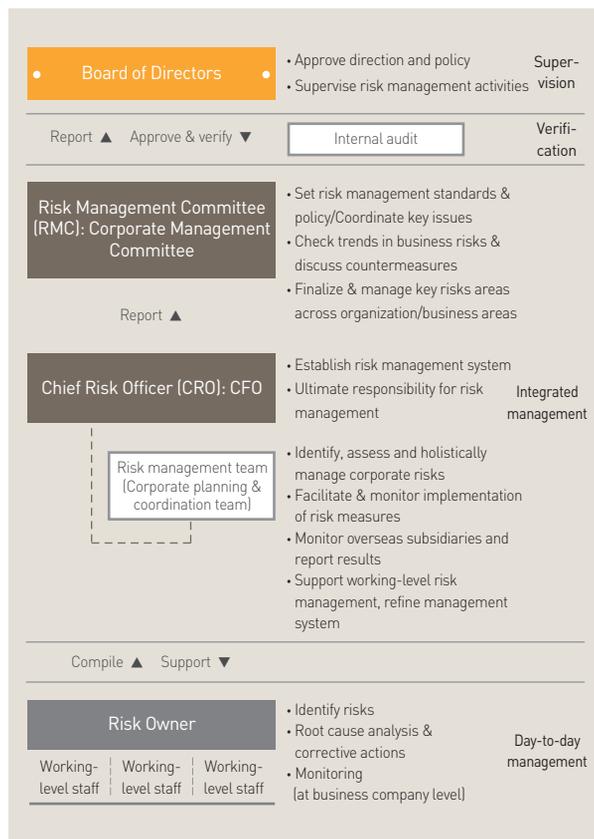
【 Key Issues for 2008 】

**Business Company Risks\_** Mainly referring to risks in sales and production. Sales risk included Economic recession both at home and abroad and subsequent decline in demand. Production risks were derived from cost pressure due to fluctuation in crude oil prices.

**Investment Risks\_** Operational risks were apparent from a decrease in cash flow as our capital expenditure went up on a sudden depreciation of the Won currency and an ensuing rise in equipment prices.

**Indirect Risks\_** There were valuation losses on foreign currency borrowings due to the Won depreciation despite earnings growth gained in business companies.

## ▼ Risk Management System ▼



## 【 Risk Monitoring 】

**Business Company Risks\_** We screen risks that may be triggered from changes in the business landscape and discuss relevant countermeasures when developing a mid-to long-term strategy (1H) and a business plan (2H). In particular, rigorous reviews on main index and forecast such as oil prices and exchange rates are

performed to develop scenario-based countermeasures. From a proactive standpoint, we conduct routine pre-monitoring when estimating 3 months rolling forecast for our monthly profit and loss. From a reactive perspective, we discuss product issues after the end-of-month closing of the accounts and hold business performance reviews (quarterly) and working capital reviews (as-needed basis) to address various issues in a more in-depth manner.

**Investment Risks\_** Progress from investment activities is reported to the Corporate Management Committee twice a year. Main investment initiatives that pass 6 months from the approval by the Corporate Capex Committee are evaluated against investment cost and Key Risk Indicators (KRI), and are classified into green, yellow or red. The evaluation results are used as an input for interim decision making including adjustment of investment timing. In addition, early involvement in the investment planning process for business divisions is ensured to improve efficiency in decision making for investment initiatives.

**Indirect Risks\_** In monthly corporate staff meetings, executives get together to formulate countermeasures to deal with exchange rate issues, interest rates, accounting standard changes as well as legal disputes. Indirect risks are also monitored at monthly manager meetings chaired by the CFO (CRO). In addition, liquidity issues were discussed through meetings targeted at improving financial structure once our business plans became finalized.



▲ Emergency drill for handling the inflow of hazardous chemicals into general drainage way

#### 【 Follow-up Activities for Risk Management 】

**Internal Audit\_** When a major risk occurs at a corporate level, we promptly conduct internal audits and take bold follow-up actions across the organization when deemed necessary, to prevent recurrence of similar risks in the future.

**Infrastructure Review\_** We have realigned R&R Chart (Role&Responsibilities) of domestic companies and overseas subsidiaries to clarify their operational responsibilities and authorities and raise efficiency. In addition, we have set up rules for receivable management for overseas subsidiaries to reinforce their working capital management.

**Investment Follow-Up\_** We check investment initiatives completed within the recent 3 years to gauge whether they are on track for revenue, income and CAPEX targets, and capture any deviating factors to enhance investment effectiveness. Such follow-up activities are currently in the process of roll out to all business divisions.

#### 【 Environmental & Safety Risk Management 】

We list up key potential environmental and safety risks of our worksites to establish a response process and perform periodic training and preventive drills to ensure effective emergency preparedness. LG Chem conducts emergency drills on its own as well as jointly with relevant organizations such as local fire departments.

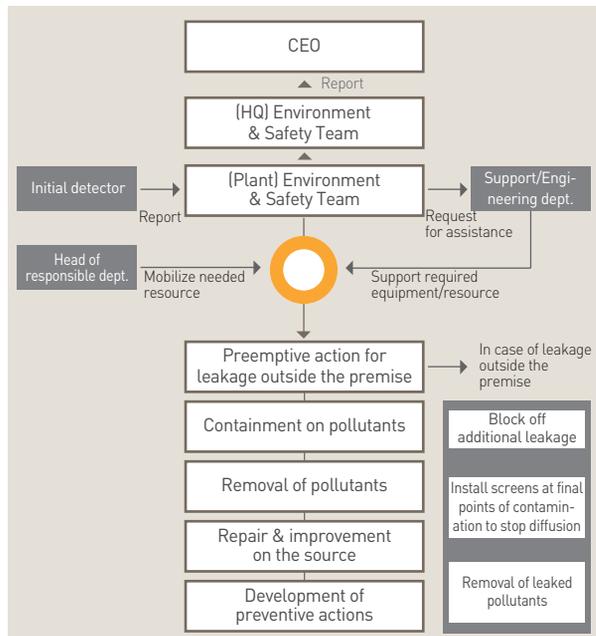
#### ▼ Addressing Key Environmental and Safety Risks ▼

Category	Key risks	Response process
Water quality	Influx of hazardous chemicals into general drainage way	Response process concerning emergency water storage tank
Air quality	Leakage of air pollutants and toxic gases	
Wastes	Leakage of designated wastes/ liquid wastes from worksites	Response process concerning leakage of hazardous chemical materials
Toxic materials	Toxic material spills	
Soil quality	Leakage of soil contaminating materials	
Severe safety accident	Fire, explosion and accidents resulting in casualty	Plant-specific contingency plans
Natural disasters	Accidents arising from natural disasters such as typhoons and earthquakes	

**TMS(Tele-Monitoring System)\_** Our Tele-Monitoring System (TMS) is placed at major pollutant outlets to check the conditions of key air pollution preventive facilities and wastewater treatment areas at the sites. It monitors the concentration of discharged pollutants on an on-going basis and helps prevent unforeseen environmental accidents from occurring. To ensure early control, pollutant concentration levels are automatically recorded and warning signals become activated when the levels exceed the thresholds. Moreover, discharge measurement data are transmitted online to major public agencies via the Control Center operated by Environmental Management Corporation (EMC).

**Accident Prevention\_** For immediate response in case of contingency, emergency handling scenarios are prepared for different contingency types and environmental & safety facilities. Each site and team exercise regular emergency drills based on the scenarios. In addition, we closely analyze the results of the drills and identify any shortcomings to formulate countermeasures, refine the scenarios and improve future emergency drills. Any accidents at the worksites can be promptly managed with highly trained emergency response organization and well-prepared disaster prevention equipment.

▼ Emergency Response Process for Toxic Chemical Leakages ▼



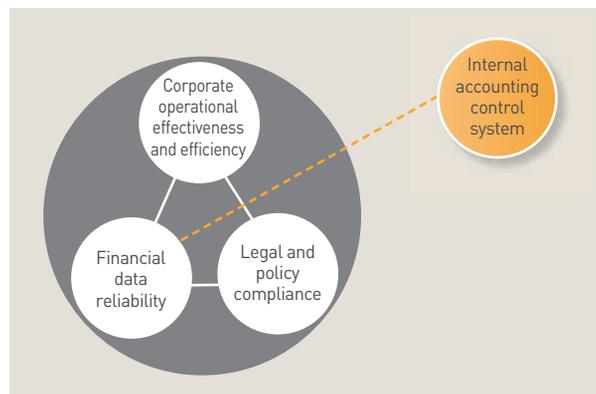
Given the traffic conditions in Korea, it is quite challenging to ensure a timely response to accidents that are highly likely to occur in the transportation process of chemicals. Accordingly, LG Chem is taking a systematic lifecycle approach to accident prevention and emergency preparedness from product shipment to delivery. We train and inform fleet drivers, check and maintain outgoing vehicles, run an emergency response organization and manage emergency contact networks.

**Internal Control System**

An internal control system refers to an organization-wide control to achieve the following three objectives: ensuring corporate operational effectiveness and efficiency; financial data reliability; and legal and policy compliance. It provides assurance on corporate financial statements to remove public distrust stemming from large accounting frauds and scandals, and elevate management accountability to earn confidence from investors.

The Securities and Exchange Act in Korea requires verification and signatures from the representative director and a reporting officer, and the Act on External Audit of Stock Companies stipulates for the operation of an internal accounting control system. Therefore, in accordance with the relevant acts, LG Chem ensures that the representative director and a reporting officer verify and sign off financial statements prior to quarterly disclosure. We continue to follow the best practice in internal accounting control system.

▼ The Purpose of Internal Control System ▼



**【 Internal Control System-Procedures and History 】**

Our CEO/CFO certification project and internal control evaluation system launched in 2004 are utilized to raise the reliability of financial reporting and capture opportunities for improving business process based on a constant emphasis on training and education.

**Comply('04~'05)**\_ We documented our internal process through CEO/CFO certification project in 2004 and brought our regulations on internal accounting control in alignment with a revised Act on External Audit of Stock Companies to perform corporate-wide assessments on internal control system.

**Improve('06~'07)**\_ The FAIR system, built as our internal control evaluation mechanism, was set up to enable online certification of the executives as well as continuous and efficient management of improvement opportunities following evaluation. In addition, internal controllers were trained intensively to upgrade their skills, and our executives and employees were educated periodically for awareness building. Audits on key business processes and follow-up initiatives for improvement were carried out as well.

**Transform('08 and onwards)**\_ To raise awareness of control amongst the employees, online training was rendered for all desk-job workers and control descriptions were upgraded to include detailed practicalities applicable to plants.

**▼ Establishment of Internal Control System in Phases ▼**



**【 Internal Control Process 】**

LG Chem appointed the CFO as our internal accounting controller and placed a dedicated department for internal control under an accounting officer. Following the regulations and operational guidelines on internal accounting control, evaluations are performed on a quarterly and as needed-basis across different job functions. After evaluations, relevant departments formulate action plans on their weaknesses and follow up on its implementation to drive operational excellence. Evaluation results are then reported to the BOD and the audit committee twice a year and get reviewed and certified by the audit committee and external auditors on an annual basis.

**▼ Organization ▼**

Organization	Roles & Responsibilities
BOD/Audit Committee/ Top management	<ul style="list-style-type: none"> <li>Foster an environment conducive to control, review and approve evaluation results</li> </ul>
Internal accounting controller	<ul style="list-style-type: none"> <li>CFO appointed as an internal accounting controller to operate internal accounting control system</li> </ul>
Frontline departments	<ul style="list-style-type: none"> <li>Conduct risk assessments in team activities, design control initiatives, self-diagnosis and improvement initiatives</li> </ul>
Internal control department	<ul style="list-style-type: none"> <li>Design &amp; operation of internal accounting management system</li> <li>Documentation &amp; testing of evaluation system</li> </ul>

**▼ Operational Regulations ▼**

External	Internal
Best-practice standards and guidelines for internal accounting control system	<ul style="list-style-type: none"> <li>Review standards and guidelines for internal accounting control system</li> </ul>
Internal accounting control regulations	<ul style="list-style-type: none"> <li>Operational guidelines for internal control evaluation system</li> </ul>

**▼ Follow-up Activities ▼**

Description	Details
Reporting	<ul style="list-style-type: none"> <li>Corporate Management Committee (quarterly), Audit Committee/BOD (semi-annual), external auditor/Jeong-Do Management TFT (annual)</li> </ul>
Feedback	<ul style="list-style-type: none"> <li>Feedback from evaluation to facilitate improvement activities at the working level</li> </ul>
Improvement	<ul style="list-style-type: none"> <li>Improvement plans and initiatives taken to follow up on the evaluation results</li> </ul>

## Economy

32 \_ Management Strategy and Innovation

35 \_ Economic Performance

38 \_ Customer Value

40 \_ Product Safety

42 \_ Eco-Products



# Economy



## Seeking the true values in life

LG Chem focuses on three strategic tasks- reinforcing core business, innovating customer value and enhancing organizational capability- to stay competitive in challenging times and continue to perform strong in 2009.

# Management Strategy and Innovation

To realize the vision of 'a global leader that grows together with its customers', LG Chem remains dedicated to honing the fundamentals to sustain growth even in challenging times.

## Management Goals and Strategy

【 Our Mid-to Long-term Roadmap for Growth 】

We drive sustainable development through profitable growth that goes far beyond quantitative growth. Our 'Core Driven Growth Strategy' is designed to achieve this objective through channeling our time and effort on our core business areas to sustain profitable growth.

Our 'Core Driven Growth Strategy' has the following three goals: First, driving growth to the full potential with our core business areas; second, leveraging this platform to move into adjacencies and solidify our market position early on; and third, developing and growing new business in promising frontiers where we already have core competence in or are able to secure the needed competency early on.

LG Chem aspires to emerge as a leading global player through this 'Core Driven Growth Strategy' on the foundation of Speed Management.

【 Direction for 2009 Strategy 】

At the global level, negative growth is forecasted for the US, Japan and Europe in 2009 due to full-fledged recession triggered by financial turmoil in the global economy. At the domestic level, the economy is expected to slide into severe recession, affecting both exports and domestic demand. In particular, we expect a significant slowdown in the Chinese economy, which is a key market for LG Chem.

In the chemical industry, there are escalating concerns over oversupply due to a decline in demand from the global business recession, coupled with full-fledged capacity expansion and utilization in the petrochemical facilities in China. The prospect for the chemical industry is going to turn more unfavorable, especially owing to a combination of downside factors-slowing demand in IT



To rise to such challenges in the business landscape and sustain performance excellence in 2009 as well, we aim to drive three strategic tasks of 'reinforcing core business', 'innovating customer value' and 'enhancing organizational capability'.

**Reinforcing Core Business\_** To reinforce core business, we will work to strengthen cost competitiveness of our key products and build a unique competitive edge for our products to further consolidate our cost, product and market leadership. For cost competitiveness, we will drive process re-engineering and enhance the efficiency of raw materials in the chemicals and polymers business to raise productivity. We will continue to concentrate on energy savings initiatives in the utilities sector to further bring down our cost of goods sold. In the IT and electronic materials business, we will pursue process innovation for optical products to raise production efficiency and internalize key materials to improve bottom line.

To ensure distinctive product competitiveness, we plan to continue with increasing the added value of general-purpose products in the petrochemical area. We will focus on materials innovation for highly functional materials, IT and electronic materials as well as green products. In the IT and electronic materials business, we aim to sharpen our edge in polarizers and photo sensitive products to broaden our market, and press ahead with activities to further stabilize our battery products to deliver higher customer value.

**Innovating Customer Value\_** We want to become a solution partner for our customers - helping our customers solve their issues to drive stronger results and success. Our proprietary model for customer value creation will be expanded to cover core customer groups beyond individual customers, overseas customers beyond domestic customers. In addition, we are aggressively driving technology innovation to continue to deliver customer value that is different from our competitors. To that end, our frontline operators will lead the development of proprietary process technology. Also, we plan to pursue the expansion of R&D investment and technology licensing to allow for necessary product development capabilities. We stay committed to delivering unique customer value as we go forward as well. We will consistently deepen investment in R&D, aggressively introduce new technologies and recruit experts to upgrade our abilities to develop uniquely differentiated products. Moreover, to increase value for our customers, we will capitalize on our technological competence to solidify our key technology platform and explore stable yet winning opportunities in new business frontiers, e.g., green and clean energy, next-generation batteries and IT.

**Enhancing organizational capability\_** We want to grow sustainably through reinforcing core business and innovating customer value. That is why LG Chem devotes itself to human capital development. Moreover, we will enhance the global networking capability of our people and accelerate the localization of overseas operations, as a means to advance LG Chem's unique model for globalization. Furthermore, we aim to embed the principles of LG Way and Speed Management in people and create a great workplace full of self-initiative and creativity.

### Innovation Activities

#### 【 Speed Management that Builds Fundamental Competitiveness 】

The Speed Management paradigm accelerates strategy execution and corporate culture transformation based on a market- and customer-oriented approach to produce faster results to achieve management goals and vision. To that end, we will maintain a thorough focus in implementing Speed Management initiatives-reinforcing core business, innovating customer value and enhancing organizational capability. (For more detailed information on Speed Management, please refer to page 18~19 in this report.)

#### 【 Innovation for a Winning Edge 】

Our on-site innovation initiatives such as Quality Control (QC) and Total Productive Maintenance (TPM) implemented since 1993 have helped build a systematic facility management mechanism across our plants, resulting in maximum productivity and minimum defects to deliver products with world-class quality. We deployed Six Sigma across organization to secure product leadership in 1999, so that we could proactively and flexibly adapt to increasingly sophisticated and changing customer needs. Our Six Sigma program brings in the best and the brightest from different areas of the company to solve problems. We challenge our people to push themselves further for aspirational goals and drive stronger execution in our Six Sigma initiatives, with real impact on our bottom line



**Research & Development**

【 Winning through Technology 】

The objective of research and development at LG Chem is to reinforce existing businesses in chemicals and polymers, industrial materials, and IT & electronic materials and to generate new businesses for the future. Through R&D, our existing business structure centered on petrochemicals and industrial materials has diversified to cover IT and electronic materials, e.g., polarizers and rechargeable batteries. LG Chem is presently focusing its research on environment/bio and clean energy to address oil scarcity and environmental challenges of the future. As of the end of 2008, there are total 1,791 researcher and developers, with KRW 256.1 billion in investment made for R&D during the year. We are bringing stability to industrial material business and IT & electronic material business such as technology-intensive batteries and photo sensitive materials, as researchers that had led the relevant R&D activities are now directly involved with the frontline production after their research ideas were translated into commercialization.

【 New Growth Drivers for the Future 】

To drive sustainable growth, LG Chem channeled 28% of annual 2008 R&D budget into new future businesses and generated tangible results in advanced automotive batteries and solar cell materials in the clean energy domain, as well as OLED and LED materials in the next-generation display domain. We are pursuing open innovation in new business segments through strategic alliance, JV and outsourcing. The "New Business Planning Department" established in 2007 is exploring new business frontiers identifying a new business area that capitalizes on our core strengths and as a result, in 2008 LG Chem decided to make inroads into a polysilicon business, a key material for solar cells. By 2012, we plan to increase the size of R&D investment for new growth up to 35%

【 Bioplastics 】

In the face of rising challenges of toughening environmental regulations and oil shortage, we are expanding our research on using biomass-based polymer materials and biodegradable polymers instead of conventional oil-based polymers. We are presently focusing on widening its product applications, e.g., exterior housings of existing electrical & electronic products, safe food packaging, automotive materials and interior materials. Drawing on our knowledge of polymer products, we plan to explore new market knowledge of application expansion in bioplastics.

【 Safety Enhanced Separator 】

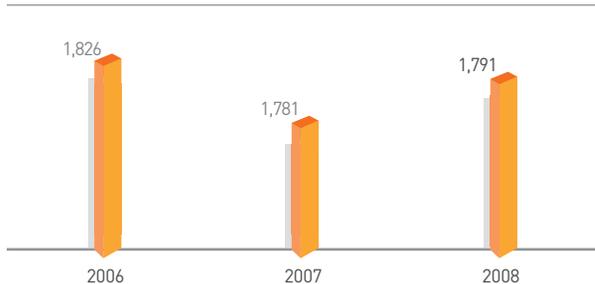
LG Chem developed 'safety enhanced separator' - a next generation separator designed to bring fundamental solutions to electrical short circuit issues. Composed of new conceptual nanostructure and compounds, this innovative separator outperforms conventional polyolefin separators in terms of thermal and mechanical properties as well as safety features against internal and external shocks. This technological breakthrough is expected to enable development of a wide variety of batteries, e.g., high-capacity batteries and advanced automotive batteries for hybrid electric vehicle[HEV], as they have been considered off-limits to the researchers due to safety concerns over lithium secondary batteries.



▲ Safety Enhanced Separator

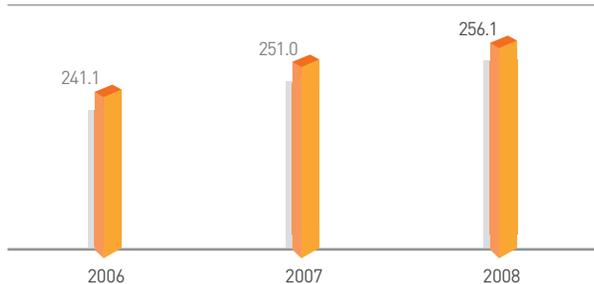
**Research staff**

(persons)



**R&D investment**

(KRW billion)



# Economic Performance

The year 2008 was a time of turbulence. Companies had to navigate their way through stormy waters that the sub-prime mortgage turmoil had set off-sailing against the wind of a severe global recession and financial instabilities, oil price fluctuations and domestic economic slump.

The business landscape for 2008 was fraught with challenges and uncertainties. Companies struggled in the aftermath of the sub-prime mortgage crisis as it brought with it a global economic downturn, currency and financial instabilities, oil price fluctuations and domestic business slowdown. In this time of difficulties, we look to Speed Management - our unique management innovation paradigm for 'Early, Fast, and Real-Time'- to become an LG Chem that is recognized by the market and customers for its distinctive competitiveness and performance excellence. Differentiated competitiveness enables us to outperform our competitors even during the downturn, and is gained only by shifting the focus from general-purpose products to more high value-added and specialty products. In particular, we have secured robust competitiveness through productivity enhancement and internalization of raw materials in the IT and electronic materials business. We have also dramatically deepened our customer base for our battery business. In particular, we have aggressively driven R&D activities to secure new growth drivers, and are now ready to make a full-fledged entry into the HEV battery market. LG Chem stays dedicated to implementing the 'Core Driven Growth Strategy' and exploring our winning strengths to sustain our growth into the future.

## 2008 Operating Performance

Our operating performance for the year 2008 has shown significant improvements from the previous year, with KRW 12.645 trillion in revenue and approximately KRW 1.344 trillion in operating profit. Major enablers include earnings improvement in Petrochemicals such as synthetic rubber, acryl, Oxo-Alcohol and PVC and healthy performance in IT and Electronic Materials company driven by growth in electronic materials, e.g., rechargeable batteries and polarizers. [Results of the now spun-off Industrial Materials are separately shown as income from discontinued operation and are thus excluded from corporate-level revenue and operating profit.]

On the revenue front, the Petrochemicals Company saw dramatic growth year-on-year boosted by higher revenues from the merger of LG Petrochemical and sales growth from increased demands for synthetic resins such as synthetic rubber, acryl, Ox-Alcohol and PVC. The IT and Electronic Materials Company also enjoyed stronger sales from the previous year, driven by a rise in demand for notebook PCs and mobile phone batteries, new customer acquisition and volume growth in polarizers. Operating profit showed a year-on-year growth for the petrochemical side despite downside risks such as drastic pricing fluctuations in naphtha and end-products, thanks to offsetting factors, i.e., synergies from the merger of LG Petrochemical and healthy and profitable product line-ups such as synthetic rubber, acryl, Ox-Alcohol and PVC. The IT & Electronic Materials showed impressive performance in operating profit attributable to a multitude of factors, e.g., an improved rate of returns from continuous development of top global customers, raw materials internalization and stabilization, as well as sales growth in polarizers and cost innovation efforts.

## ▼ Summary of Financial Performance ▼

	2006	2007	2008
Revenue	7,224.9	8,899.6	12,645.0
Operating profit	215.6	662.3	1,344.3
Income from continuing operation	196.7	621.4	945.8
Net income	316.0	686.2	1,002.6

\* The results of the now spun-off Industrial Materials are separately shown as income from discontinued operation and are thus excluded from revenue, operating profit and income from continuing operation.

## ▼ Stability ▼

	2006	2007	2008
Current ratio (%)	104.1	141.0	153.4
Debt-to-equity ratio (%)	121.3	81.8	64.4
Dependence on borrowings (%)	27.3	19.3	17.4

\* Excluding operating profit from Industrial Materials

## ▼ Profitability ▼

	2006	2007	2008
Operating profit margin (%)	2.9	7.4	10.6
New income margin (%)	4.2	7.7	7.9
ROA (%)	5.5	10.7	13.2
ROE (%)	12.5	21.1	22.9

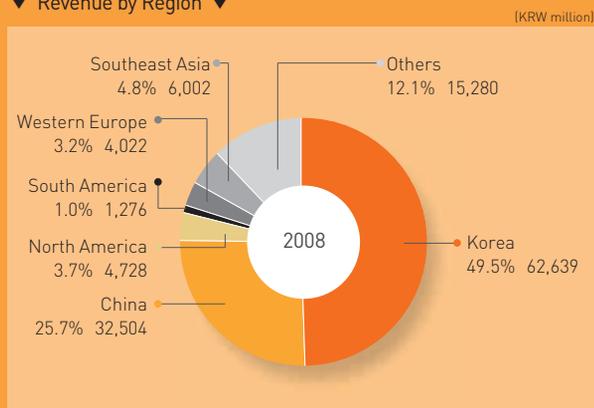
\* Excluding operating profit from Industrial Materials

## ▼ Growth and Turnover ▼

	2006	2007	2008
Sales growth (%)	2.9	23.2	42.1
Operating profit growth (%)	12.7	207.2	103.0
Net income growth (%)	-21.7	117.2	46.1
Total assets growth (%)	3.8	21.4	14.0

\* Excluding revenue and operating profit from Industrial Materials

## ▼ Revenue by Region ▼



\* Excluding Revenue from Industrial Materials

## Performance by Business

## 【 Petrochemicals 】

Downside risks to management persisted due to drastic oil price fluctuations and ensuing instabilities in commodity prices such as naphtha, but the NCC/PO business continues to tap into synergies created from the merger of LG Petrochemical to ride out difficulties, such as through cutting cost and leveraging bargaining power as a volume buyer. Profits continue to flow in for the Oxo-Alcohol business as demand continues to exceed supply, and synthetic resins fared well on the back of appreciation in natural rubber price and demand growth in the automobile markets in China and India.

## 【 IT &amp; Electronic Materials 】

Profitability improved for our battery business as a result of our consistent focus on development of top global customers, raw material internalization and stabilization. In optical materials, internal cost saving initiatives and a strong growth in LCD demand led to improved revenue and operating profit.

The prospect for the battery business is optimistic with a steady improvement in earnings. Increased supply volume to our key clients (HP, Dell, Nokia and Motorola), productivity enhancement and cost reduction initiatives are all expected to bear tangible fruit. Leveraging our technological prowess, we are now bracing ourselves to embark on a battery business for hybrid vehicles, a future growth business area. On the other hand, our optical material business is expected to face downward pressures on pricing from frontline companies, but forecasts sustained profitability through a recovery in LCD demand, volume growth for key customers and consistent innovation drive.

## 【 Industrial Materials 】

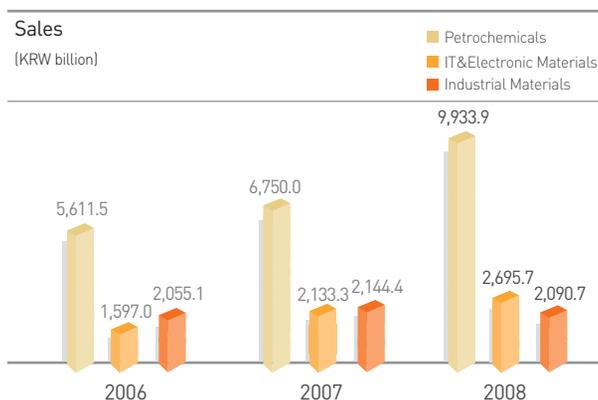
Instabilities continue to persist as domestic demand is slow to regain its strength against business recession. Nevertheless, the industrial materials business is looking to cost innovation and highly value-added products as a way out of difficulties. We plan to make intensive investments and pursue management rationalization through spin-off to stay at the top of the competition in Korea.

## ▼ Revenue and Operating Profit by Business Company ▼

(KRW billion)

	2006		2007		2008	
	Revenue	Operating profit	Revenue	Operating profit	Revenue	Operating profit
Petrochemicals	5,611.5	169.9	6,750.0	511.2	9,933.9	903.3
IT & Electronic Materials	1,597.0	48.3	2,133.3	153.4	2,695.7	451.5
Others	16.4	-2.6	16.3	-2.3	15.4	-10.4
Total	7,224.9	215.6	8,899.6	662.3	12,645.0	1,344.4
Industrial Materials	2,055.1	120.7	2,144.4	94.1	2,090.7	85.3

\* Results of discontinued Industrial Materials business have been included as a reference for the investors.



### Distribution of Economic Value

#### 【 Dividend 】

LG Chem takes a holistic view of the size of the profit, investment plans for future growth and the financial structure when determining dividend payout. For fiscal year 2008, we declared a dividend of KRW 2,500 per common stock (dividend ratio of 50% based on par value), a 25% increase year-on-year for common stocks after considering various factors in a comprehensive manner—a dramatic growth in profit from the previous year, CAPEX requirements, R&D investments and our debt-to-equity ratio targets.

Committed to delivering stronger shareholder value, we will continue to generate profit through honing our competitiveness and distribute portions of such profit to the shareholders.

#### 【 Interest Expenses 】

There was a significant drop in interest expense. It fell by KRW 42.6 billion from KRW 81.8 billion in 2007 to KRW 39.2 billion in 2008, thanks to the deleveraging driven by improved cash flow from performance enhancement.

### ▼ Purchasing Cost ▼

Business company	Type of purchase	Items	Application	Amount ('08)	Ratio	Remarks (seller)
Petrochemicals	Raw materials	Naphtha, EDC, benzene	Feedstock for PVC/PE, plasticizers, acrylic, ABS, PS	6,534,690	81.4%	GS Caltex OXY/DOW Chem
IT & Electronic Materials	Raw materials	TAC, PVA, etc.	Raw materials for polarizers	1,458,034	18.1%	Fuji, etc.
Others	Subsidiary materials	Antioxidants	Improvement of physical product properties	38,373	0.5%	Others
Total				8,031,097	100%	
Industrial Materials	Raw materials	PVC S/T resin Plasticizer, EPs Resins	Feedstock for flooring Raw materials for automotive parts	226,509		In-house, etc.

\* Operating results of the Industrial Materials, now a discontinued business, have been provided for the convenience of the stakeholders.

### ▼ Dividends ▼

	2006	2007	2008
Net income (KRW billion)	316.0	686.2	1,002.6
Earnings per share (KRW)	4,354	9,264	12,022
Dividend ratio (Par value, %)	20	40	50
Total dividend (KRW billion)	72.9	167.0	209.2
Dividend payout (%)	23.1	24.3	20.9
Dividend yield (%)	2.3	2.2	3.5

### ▼ Labor Costs ▼

	2006		2007		2008	
	Total annual payroll	Average per capita payroll	Total annual payroll	Average per capita payroll	Total annual payroll	Average per capita payroll
Male	487,486	52	577,855	60	649,485	66
Female	34,883	31	38,810	36	38,535	38
Total	522,349	50	616,665	57	688,020	64

### ▼ Contributions ▼

	2006	2007	2008
Charitable contributions	2,235	2,000	2,113
HR development	1,585	950	1,118
Community contributions	2,693	5,251	5,531
Total	6,513	8,201	8,762

### ▼ Corporate Income Taxes ▼

	2006	2007	2008
Income tax expenses from continuing operations	58,228	105,743	299,665

\* Excluding discontinued business of Industrial Materials

# Customer Value

Our vision of 'Growing with Customers' defines the raison d'être of LG Chem. It guides our endeavors in delivering uniquely differentiated materials and solutions for our customers.

## Defining the Way We Work- a Focus on Market and Customer

We strive to bring a customer and market focus in the way we think and work. That is why we first try to identify what value it is that our customers desire to have. In other words, our technology and product solutions may not necessarily guarantee the right value proposition if customer needs are not fully captured from the beginning. Indeed, customer value enhancement begins with understanding the customers- the environment they are in, the issues they find difficult to solve by themselves and the value they seek to have. Such customer insights can clearly guide us in developing and delivering differentiated materials and solutions that reflect customer value. This customer-oriented approach helps us bring success in customer business and gain their trust for our value offerings.

## Our Unique Value Proposition

Various units at LG Chem, from sales, R&D, sales to tech service, are brought together as one team to create greater value for customers. Such consolidated team structure enables a broad and in-depth understanding of customer issues and needs, and thus ensures effective and timely solutions for customer value creation.

We deliver unique material solutions for our customers along with a wide variety of added services and troubleshooting solutions to meet their sophisticated and critical business needs. With a strong customer focus in place, our business companies interact directly with the customers to identify their current requirements as well as to explore latent needs.

## 【 Solution Partner 】

Our customer value innovation is driven by our strong pursuit of 'Solution Partner Initiatives'. They are designed and capture current business needs of the customers and bring products, service and knowledge together as an integrated value offering. The solution partner initiatives aim to discover solutions for our customers, enhance their performance, and promote growth for both LG Chem and the customers.

As part of such solution partner initiatives in 2008, we embarked on 56 projects targeting to help key customers of our business companies. The projects contributed to product development, productivity enhancement and cost innovation of our customers, resulting in their revenue growth of KRW 490 billion.

### Example of solution partner initiatives

Development of engineering plastic, used as a high-glossy material for notebook computer application

The existing high-glossy materials our customers used had a high defect ratio during product forming and often damaged the surface of the mold. LG Chem, after countless experiments and trials and errors, finally succeeded in developing a new high-glossy material with a lower defect ratio and saved more than 15% cost for the customers.

Moreover, the existing production process had productivity issues, as the molds would have to be heated and cooled again to gain a glossy effect. We successfully developed a new engineering method for achieving a glossy effect at a consistent temperature, resulting in enhanced productivity in the customer process with more than 40% reduction in the cost of goods sold.

**Customer-Oriented Marketing Drive**

To move beyond customer satisfaction and achieve customer delight, LG Chem is striving to incorporate customer needs in all phases of product development to marketing.

**【 Z:ENNE - Our Homemaker Consultants 】**

LG Chem is constantly open to the views of our customers and utilizes female homemakers as our Z:ENNE consultants to engage them in our quality, design and marketing activities. Feedback and input from the homemaker consultants are fully reflected in our product launch and marketing strategy.



**【 Launch of the Z:IN Homepage - Renewal with Customer Input 】**

The renewal project for Z:IN homepage was carried out to build a homepage for the customers and by the customers. We first compiled views and complaints from the existing website users to set a direction for contents management. The renewal process then went through a continuous cycle of checks and reviews to enhance user friendliness. As such, the Z:IN homepage is now viewed as a place where consumers can easily access useful information, engage in interactive communication and learn about a variety of event programs. The membership and re-visit rate are on the rise as a result. As of 2008, membership increased 30% from the previous year and re-visit rate rose to 36%.



▲ Z:IN Wallcovering Art Culture in the Palace-The Andre Kim fashion show



▲ Z:IN Wallcovering, Art Symphony-Sympathy

**【 Art Marketing for Z:IN Wallcovering 】**

With the emergence of emotional consumption, customers are increasingly drawn to not only product functions but also sensory design and image associated with the products. Catching such changes in the consumer appetite, Z:IN wallcovering embarked on an art marketing drive from 2007 for the first time in the industry to deliver greater value for the lives of customers.

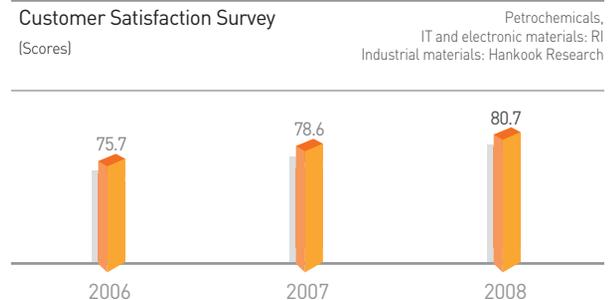
Our new product launched in 2007 called 'Gallery' is a natural fabric-woven wall covering designed to satisfy the needs of customers who wish to personally own art works of famous artists. With the works of renowned Korean artists directly applied to the products, the customers can create a gallery-like atmosphere in their own homes.

Moreover, diverse art marketing activities have been carried out combining Z:IN wallcovering with a touch of art. Garments with a motif drawn from wallcovering patterns were made for the first time in the fashion industry and some 30 dresses inspired by Z:IN wallcovering patterns were also introduced at a fashion show.

Such art marketing drives led to excellent performance of this rather young brand with only a 3-year history. The 2008 TNS research found that top of mind brand awareness of Z:IN as an interior brand was 48%, with consumers recognizing superior attributes in its premium image, design attributes and popularity appeals vis-à-vis competing products.

**Customer Satisfaction Survey**

LG Chem annually surveys and evaluates our customers on their satisfaction with our customer interface activities and reflects the results into our policy making. The customer satisfaction survey is commissioned to a specialized research firm which performs annual surveys for each business company.



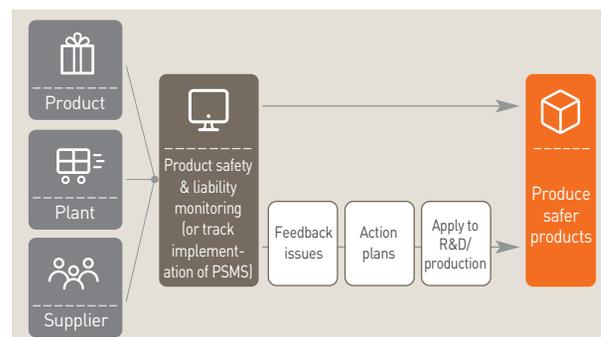
# Product Safety

One of the top priorities of LG Chem is to produce quality and safe products and protect our consumers. With the enforcement of the Product Liability Act from July 1, 2002, we set up a product safety management system (PSMS) to imbed safety in our production.

## Product Safety

**【 Product Safety and Product Liability Monitoring 】**  
 Consumers have become more empowered since the 'Consumer Protection Law' was partially revised into 'Consumer Basic Law' on March 28, 2007. Corporations are now asked to take stronger responsibilities for their product safety. In particular, consumers have grown very conscious of the safety of products especially after the Melamine scare swept the world in 2008.

Against this backdrop, LG Chem monitors existing as well as new products, new plants and suppliers for product safety and liability in order to ensure delivery of safe products to our customers. Monitoring is conducted on selected products or plants to track implementation of PSMS and to feedback any deficiencies to relevant process owners. Results of monitoring are translated into action plans and applied to product development and production to manufacture safer products for our customers.



**【 Training for Product Safety and Product Liability 】**  
 Action plans identified from monitoring on product safety (PS) and product liability (PL) are shared among relevant staff, sales, production and research center and are reflected into training programs. In particular, training programs are structured and segmented into basic and practitioner courses for supporting personnel, and advanced courses for production and research staff.

### ▼ PL Monitoring ▼

Description	Trainee	Course materials (response to manufacturing, design and labeling defects)	Frequency
Industrial Materials	DSQUARE CMU (Category Management Unit) (PM/MD/designer)	<ul style="list-style-type: none"> <li>• Check for PS/PL regarding product planning &amp; selection, construction, contract and product display</li> <li>• Conformity review for product catalogues, specifications, warning labels</li> </ul>	Annual
Petro-chemicals	Daesan plant (synthetic rubber) (research/production QA/purchasing/logistics)	<ul style="list-style-type: none"> <li>• Hazardous materials, property control, RoHS and REACH response</li> <li>• MSDS control &amp; packaging conformity</li> <li>• Purchasing contract (to include PL clauses), record control</li> </ul>	Annual
Suppliers	Heesung Chemical (Research/production/sales)	<ul style="list-style-type: none"> <li>• Check for PS/PL regarding customer claims, product risk analysis, manufacturing process</li> <li>• Conformity review for product catalogues, specifications and packaging materials</li> </ul>	Annual

【 PL Website 】

The PL website was set up in January 2002 and has since been in operation for sharing the latest information on PS and PL across the organization. The PL website is largely categorized into bulletin, relevant acts, cases and precedents and references. Up-to-date information on consumers and PL is offered on the bulletin, including policy developments of government and consumer advocacy groups, latest domestic and global news and our company initiatives. Some 300 entries of references were provided in 2008.

To inform details of product safety initiatives on the organization and raise awareness of product safety, we have been distributing quarterly PL reports to the headquarters and other LG Chem workplaces since 2004. Initial editions of our PL reports mostly covered news trends in PS/PL, but in 2008, more relevant information was included, e.g., LG Chem's PS/PL status, improvement initiatives from monitoring, along with product safety incidents and precedents. The PL report is utilized for PS/PL training for annual ISO audits.

【 Product Safety Review Practices 】

Our commitment to product safety is reflected in in-depth research on consumer usage behavior, benchmarking and proactive regulatory compliance. On top of product quality checks, exhaustive product safety reviews are performed for design, manufacturing, cataloguing and user manual production.

**Customer Privacy Protection**

With an increasing volume of personal customer information collected both online and offline, LG Chem is implementing technological and administrative actions to ensure customer privacy. Our information security policy underwent a major revision process in October 2006 after its enactment in December 2003. Customer data is currently classified and managed as confidential information along with key business information regarding management and technology. To prevent leakage of private information, we conduct audits and diagnoses to discover our weaknesses and take follow-up actions to realign our policies and practices against applicable laws and regulations.

We educate everyone in the organization once a year to raise awareness of information security. Training programs are targeted at highlighting the importance of safeguarding confidential information including customer information and provide methods of protection.

▼ Information Security Training ▼

Description	Targets	Subjects	Note
Online training	All departments	Importance of information security LG Chem's policy for information security	Annual
Group training	Site-specific group training	Importance of information security LG Chem's policy for information security	Annual/ each site
	New employee training	LG Chem's policy for information security	As needed basis

▼ Security System ▼



# Eco-Products

With the aspiration to become a global leader committed to protecting the environment, LG Chem is focusing its business competence on delivering greener products for all.

## Eco-Product Development

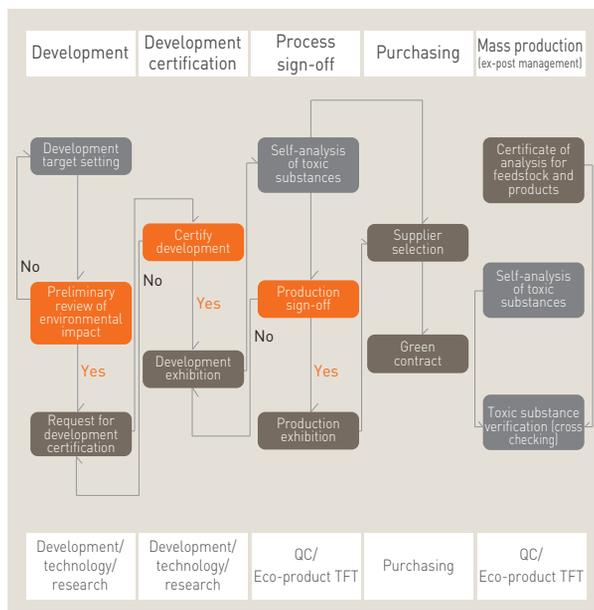
LG Chem is actively engaged in endeavors to preserve nature and ensure safety to build a basis for environmental management. We are also consistently driving technological development and innovation to deliver greener products to our customers and proactively respond to global product and environmental regulations.

## Eco-Design Process

Our eco-design process enables us to analyze and understand environmental impacts of our products throughout its entire life cycle—from development, raw material purchase to production, use and disposal. For example, internal regulations on eco-product development and environmental certification of our suppliers help us identify regulated materials and check for legal conformity in the procurement phase. In addition, our production processes have been designed to minimize environmental pollutants and maximize energy and resource efficiency. Furthermore, our R&D is focused on non-toxic, durable products to reduce the environmental load during use and our disposal phase is built for improving reusability and recyclability.



### ▼ Eco-Product Development Process ▼



**Eco-friendly Certification System**

We adopt a proactive approach in responding to product and environmental regulations at home and abroad including RoHS directives (Restriction of Hazardous Substances: ban on use of six hazardous materials including mercury, lead and cadmium) and REACH (Registration, Evaluation, Authorization and restriction of Chemicals). As such, we drew up guidelines for an eco-friendly supply chain in 2005 and put in place an eco-friendly certification system in 2006. Our focus is placed on preemptively blocking inclusion of toxic contents in the raw materials we source from our suppliers-hence, we request for certificates of analysis and warranties on the raw materials from the suppliers and evaluate their environmental soundness. In line with the implementation of REACH, we now only approve the purchase of those materials pre-registered with the European Chemicals Agency when we buy new or replace materials. Moreover, we share eco-product information and the results of regulatory trend analyses internally as well as with our material suppliers to deal with product and environmental regulations in an active manner.

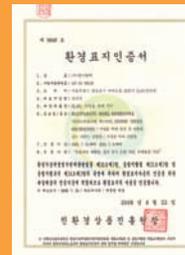
**Eco Products**

【 Z:IN (Zenith Interior for LOHAS) 】

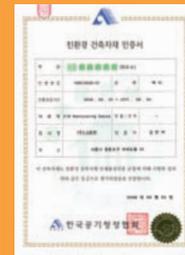
Z:IN is a total home solution brand that LG Chem launched ambitiously for the first time in Korea back in 2006 - covering a range of premium interior materials in windows, wallpapers, flooring materials, kitchen furniture and doors. Zenith Interior for LOHAS (Lifestyles Of Health And Sustainability), abbreviated as Z:IN, signifies nature and people(地人), or learning to know people(知人). In other words, Z:IN encompasses a philosophy of an interior brand that values nature and people. LG Chem is dedicated to delivering total solutions for eco-friendliness, expertise and reliability in space management, thus enriching the living space and creating optimal customer value.

【 Eco-Labeling 】

LG Chem makes dedicated endeavors for pollutant reduction, energy conservation and resource efficiency across product lifecycle and translates our green thinking into a marketing strategy. We have obtained Eco-Labels from the Korea Eco-Products Institute for our PVC flooring materials and decorative sheets, to assure our customers of objectivity and reliability in our eco-products. Our wooden floors, wall papers and artificial marbles have been certified to the Healthy Building (HB) mark (top grade)-known for its strict emission thresholds for indoor air pollutants (less than 0.1mg/m<sup>2</sup>h for TVOC and less than 0.015mg/m<sup>2</sup>h for formaldehyde) in Korea. So far, LG Chem has received 54 Eco-Labels and 34 HB marks as of Dec. 31, 2008 as well as Energy Star certification for 11 window products for their energy efficiency.



▲ Eco -Label



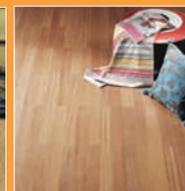
▲ HB mark



▲ Energy Star



▲ Residential PVC floors



▲ Wooden floors



▲ Room windows



▲ Industrial PVC floors



▲ Wallpapers



▲ Balcony windows



▲ Decorative sheets



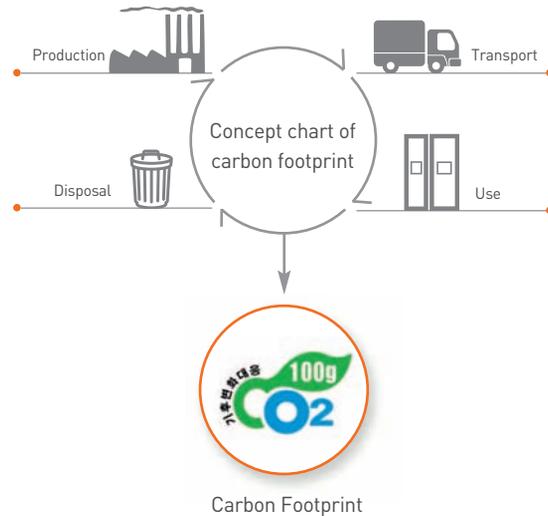
▲ Artificial marbles



▲ System windows

【 Carbon Footprint Certification 】

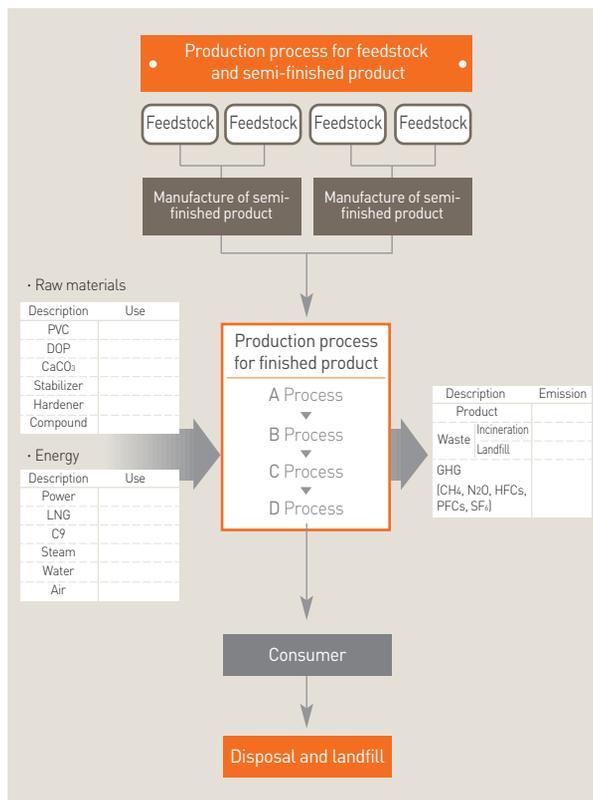
LG Chem is presently in the process of gaining carbon footprint certification - a scheme designed for manufacturers to calculate their greenhouse gas emissions across product lifecycle and indicate and disclose their carbon information on product labels. To that end, we organized information sharing sessions between our suppliers and our relevant teams from LG Chem (environment, energy, technology and production) in 2008 to define the scope and methods of collecting data on the consumption levels of raw materials and energy to understand our carbon footprint. We plan to obtain certification in the first half of 2009 when the certification scheme is scheduled to commence officially. In the context of the government's vision for Low Carbon, Green Growth and escalating pressures on GHG reduction, the carbon footprint system is expected to become a valuable tool for inducing our abatement drive including raw materials substitution, process innovation and packaging improvement.



▼ Carbon Footprint Certification Procedures ▼



▼ Scope of Data Collection ▼



【 Z:IN Wallcovering Nature- The Product of the Year by VIP ASIA 2008 】  
 Z:IN wallcovering Nature, a premium environment-friendly wallpaper of LG Chem, was selected as the product of the year by VIP ASIA 2008 of AVING News. Every year, AVING reviews news coverage and chooses Very Important Products (VIP) from those products loved by consumers and/or recommended by buyers or news editors. As the name signifies, Z:IN wallcovering Nature embraces a concept of environmental friendliness and a healthy lifestyle. Made of non-toxic materials, this wallcovering is designed to cater to the needs of the eco-conscious consumers who care about wellness and LOHAS. The Nature earned the Eco-Label and the HB mark (top grade) for its use of water-based ink to lower TVOC and formaldehyde emissions, often produced from the printed layers of wall papers. Also, its use of environmental fabric minimizes emission of hazardous gases discharged during combustion.

▼ Z:IN Wallcovering Nature- The Product of the Year ▼



【 Customer Solution Support 】

LG Chem extends troubleshooting support to our customers. As consumers grow more conscious of indoor air quality and relevant regulations become more stringent than ever, many interior materials providers have been injecting huge investment into feedstock improvement and process re-engineering to bring down emissions of TVOC and formaldehyde. Against this backdrop, LG Chem offers technical consulting services to our customers to reduce TVOC emissions, and helps with TVOC and formaldehyde analyses based on our analysis system. Such customer support is aimed at enhancing competitiveness of our customers and promoting win-win partnership. In 2009, we plan to expand the range of our customer support beyond TVOC and formaldehyde analyses to offer advisory service for standards review and documentation when customers apply for Eco-Label, HB mark and Carbon Footprint certification.



## Environment

48 \_ Environmental Management and Performance

56 \_ Responding to Energy and Climate Change

60 \_ Responding to REACH



# Environment



## Seeking the true joy in mother nature

LG Chem dedicates itself to preserving the environment as guided by our management philosophies. We are continuously pursuing a balance between our business activities and environmental values to benefit both nature and humankind.

# Environmental Management and Performance

We share a belief that preserving our planet is a key to sustainability. We practice environmental management that seeks harmony between our business activities and the environment.

## Environmental Vision

### 【 Environmental Management Philosophy 】

Based on our management values of 'creating value for customers' and 'respecting human dignity', we have adopted environmental preservation as one of our top management agenda. We are committed to environmental management that benefits our nature and people through harmony between our business activities and the environment

- LG accepts its roles and responsibilities as a corporate citizen and commits itself to business practices that keep and deepen free market economy, promote growth of local communities and preserve the environment. (Section 4, Article 1 of LG Management Charter)
- LG devotes itself to preventing environmental pollution and protecting nature to pass down a clean environment to posterity. (Section 4, Chapter 6 of LG Code of Ethics)

## ▼ Environmental Management Philosophy ▼



### 【 Environmental Management Strategy 】

We want to help build a sustainable future through our mid- to long-term strategies formulated to respond to environmental, safety and energy concerns. To ensure compliance with stringent product environmental regulations such as REACH and other environmental standards in the developed markets such as the EU, we put in place an eco-product taskforce team to address specific issues by each product group. In addition, a Climate change/energy part was set up amidst rising concerns over weather abnormalities and global warming caused by greenhouse gases. The team develops strategic initiatives and action plans and implements them in phase.

## ▼ Environmental Management Strategy ▼

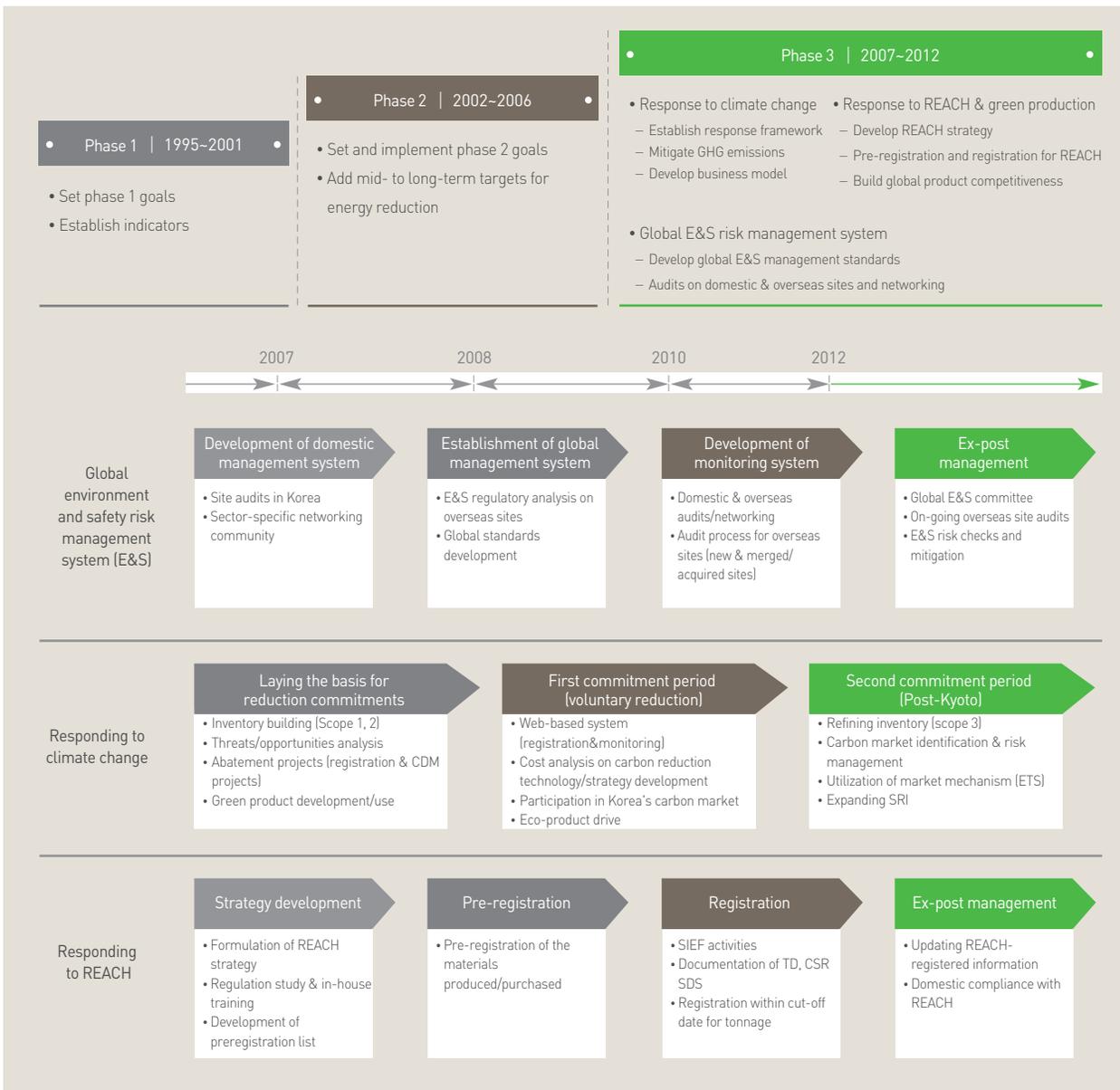
Strategy	Building competitiveness in environmental and safety management	Enhancing execution for environment, safety and health	Energy conservation and responding to climate change
Action Plan	<ul style="list-style-type: none"> <li>• Response to product and environmental regulations (RoHS, REACH, GHS, Eco-label)</li> <li>• Capacity building for E&amp;S personnel (Sector-specific expert networks, meetings)</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental and safety audits on domestic and overseas plants</li> <li>• Performance improvement using environmental KPI</li> <li>• Support mechanism for E&amp;S management at overseas plants</li> </ul>	<ul style="list-style-type: none"> <li>• Energy cost savings (energy saving theme, energy audit, technical training)</li> <li>• IT system for GHG control</li> <li>• Greenhouse gas inventory verification</li> <li>• Registration at the National Registry and implementation of national policy project</li> </ul>

【 Environmental Goal 】

Under a declarative environmental goal established in 1995 for achieving 'Pollutants Emission Zero', we formulated and implemented the first phase (1995-2001) and the second phase (2002-2006) mid- to long-term master plans for waste and wastewater reduction. Starting 2007, our sites have been taking voluntary initiatives to lower emission of pollutants. To be a

proactive, leading global company that responds to the changes in the global landscape, LG Chem introduced 3-phased master plans to ensure an organizational response for Climate Change and REACH. We are also pressing ahead with making all product line-ups greener through the eco-design process. Moreover, we are drawing up and executing action plans in phases at overseas operations to build a risk management system for environment and safety.

▼ Environmental Management Roadmap ▼



【 Environmental Management System 】

We have built our environmental and safety management systems based on Responsible Care (RC) and are maintaining certification to ISO 14001 environmental management system and OHSAS 18001/KOSHA 18001 for occupation health and safety management. We are designated by the Ministry of Environment as the Environmentally Friendly Company, with the Yeosu VCM plant and the SM plant re-designated as such in July 2008. Furthermore, we are working to bring continuous improvement across environment, safety, health and energy through Voluntary Agreement (VA) initiatives.

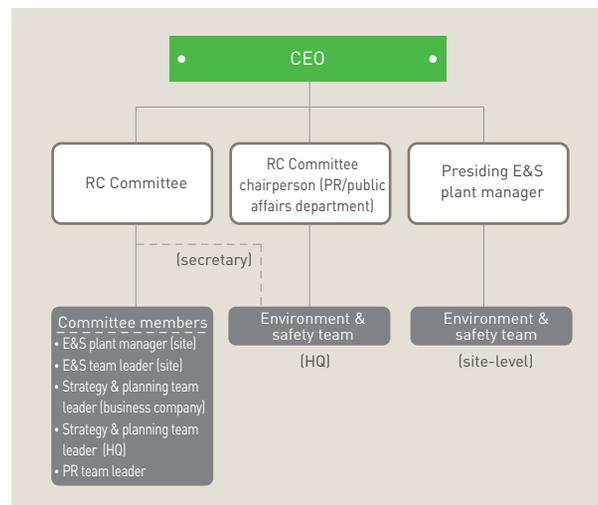
In 1991, LG Chem launched the 'Environment & Safety Committee' to systematically manage our business across customers, business and the environment, and is now aggressively driving Responsible Care across organization. To raise awareness of the environmental and safety management amongst our people, we have brought activities of the Environment & Safety committee into 'Responsible Care(RC) Committee' that engages representatives from our sites, business companies and support functions in discussing E&S agenda.

▼ Certification/Designation for Environment and Safety Management ▼

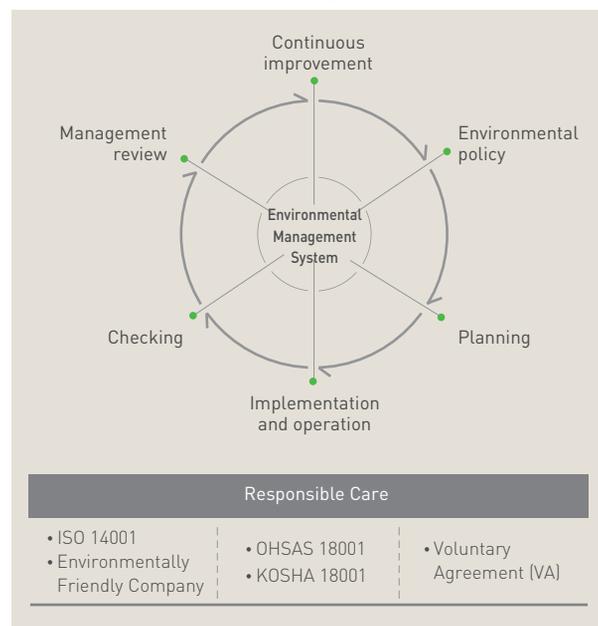
Description	Standards	Date of acquisition
Yeosu	ISO 14001	1996.12
	OHSAS 18001	2000.12
	Environmentally Friendly Company	1995.12
Cheongju	ISO 14001	1999.11
	OHSAS 18001	1999.12
	Environmentally Friendly Company	1995.12
Ochang	ISO 14001	2004.11
	OHSAS 18001	2004.11
	Environmentally Friendly Company	2006.12
Ulsan	ISO 14001	1996.12
	KOSHA 18001	2000.11
	Environmentally Friendly Company	1995.12
Naju	ISO 14001	1997.08
	KOSHA 18001	2000.09
	Environmentally Friendly Company	1998.04
Iksan	ISO 14001	2004.12
	KOSHA 18001	2001.11
	Environmentally Friendly Company	1996.05
Daesan	ISO 14001	2006.05
Daejeon Research Park	ISO 14001	2005.09
	K-OHSMS 18001	2006.11

Apart from the corporate-level RC committee convened twice a year, each plant operates a site-level RC committee to bring together various consultative channels for E&S issues. The RC Committee serves as the central force for E&S management at LG Chem and ensures proactive management of our environmental, safety and energy agendas.

▼ Responsible Care Committee ▼

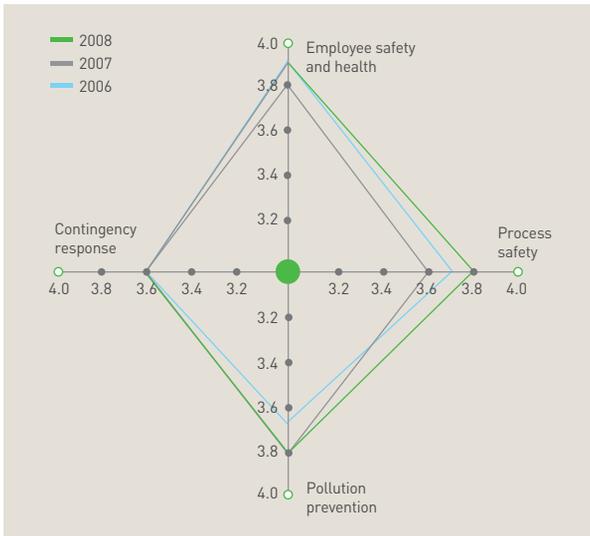


▼ The Flow of Environmental Management System ▼



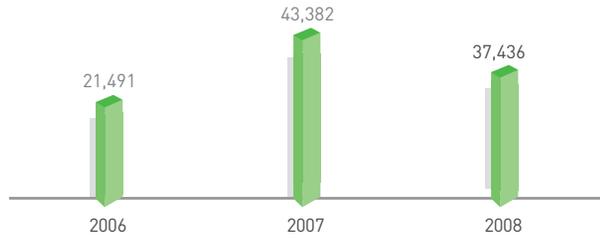
Responsibilities for the RC Committee include devising key policies on environment, safety, health and energy, analyzing and assessing RC performance, sharing relevant concerns, information and best practice. Since 2002, we have been evaluating Responsible Care codes - comprising four areas of employee health and safety, process safety, pollution prevention and contingency response - on their conformity and implementation effectiveness against site-specific assessment criteria. The results are used to drive continual improvement. The self-assessment score for 2008 were in the range of 3.6 to 3.9 points, indicating that relevant action guidelines are now embedded in our daily practice (practice-in-place or PP).

▼ RC Self-Assessment Results ▼



Environmental Investments

(KRW million)



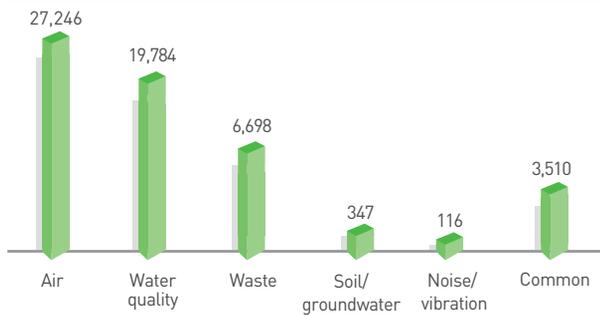
Breakdown of Environmental Investments (2008)

(KRW million)



Breakdown of Environmental Costs (2008)

(KRW million)



▼ Site Improvement Initiatives on Wastes ▼

[KRW million]

Site	Improvement initiatives	Invest-ments	Impact
Ulsan	Installation of a storage for recyclable scrap wastes	98	Efficient waste management
Yeosu	Improvement of a salt circulator gear box	80	Reduce waste generation
	Installation of a smoke-tube boiler at CTI incinerator	60	Reduce waste generation
Iksan	Reduction in particulate wastes from improved yields in toner manufacturing process	-	Recycling rate: 67% → 77%

Waste Treatment Methods (2008)



Waste Recycling Rate

(%)



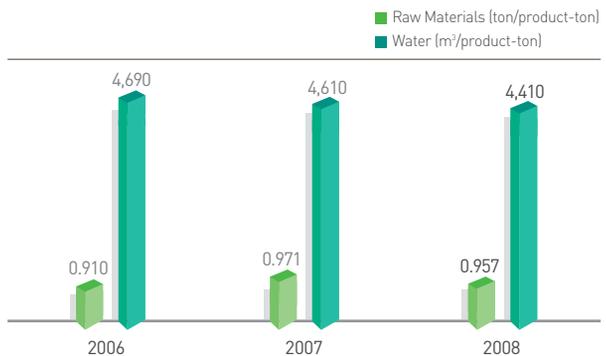
Environmental Management Performance

We drive to boost our environmental performance through aggressive initiatives designed to improve resource recycling, waste and toxic chemical management and air, water, soil quality control.

【 Resource/Recycling 】

LG Chem adopts a lifecycle management approach towards pollutant prevention from feedstock to production. We bring improvements to our products and manufacturing processes and reuse or recycle the wastes to use less resource.

Basic Unit of Raw Materials and Water

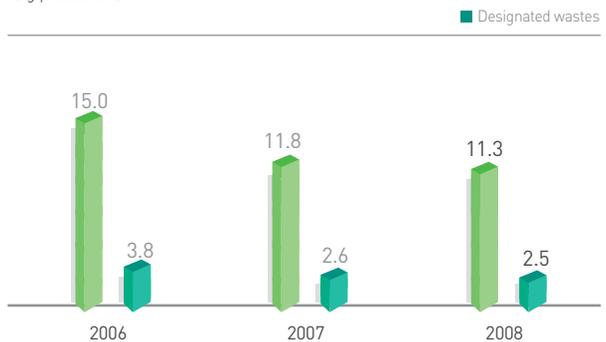


【 Wastes 】

Our end-to-end process from waste discharge from the sites to their final treatment is checked real-time via 'Wastes Manifest System', a website operated by Korea Environment and Resources Corporation. We audit and manage our waste treatment and recycling contractors throughout the year to treat wastes in a proper and transparent manner, and follow up with improvement initiatives to reduce waste generation from the source of origin.

Basic Unit of Wastes Generated (2008)

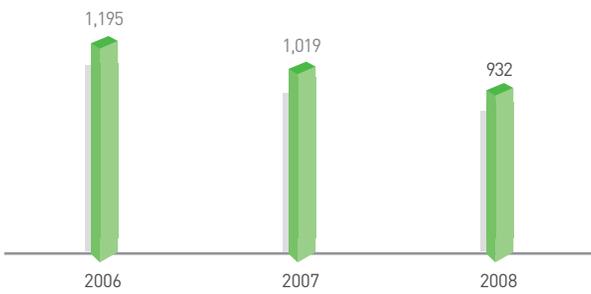
(kg/product-ton)



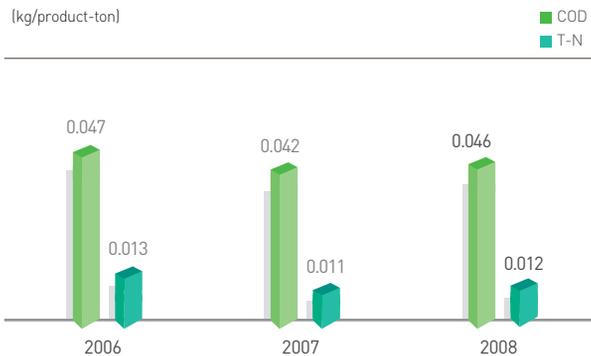
【 Water Quality 】

Our wastewater goes through initial treatment at a wastewater treatment facility at each site and is discharged afterwards to a nearby river or retreated in the wastewater treatment areas. Sewage is sent separately to the wastewater treatment areas to prevent mixing with wastewater in the process. Many initiatives are taken to generate less wastewater and water pollutants. The basic unit of COD/T-N generated has risen from the previous year as a result of the commencement of operation of the BPA plant that discharges high concentration of COD/T-N.

Basic Unit of Wastewater Generated  
(kg/product-ton)



Basic Unit of COD/T-N  
(kg/product-ton)



▲ Water Quality Control Room

▼ Improvement Initiatives for Water Quality ▼

(KRW million)

Site	Improvement initiatives	Investments	Impact
Ochang	Capacity expansion at wastewater treatment facilities	5,120	Prevention of environmental accidents
	Capacity expansion of ozone treatment equipment for treatment efficiency	1,270	Reduction in water pollutants
	System linkage between new wastewater treatment areas	140	Prevention of environmental accidents
Yeosu	Installation of GEF for reducing pollutants	350	Reduction of SS in discharged wastewater from 30 to 10 ppm
	Enhancement of wastewater recycling with PT-5900 capacity expansion	300	Reduction of 262 tons/year in wastewater generated
	Replacement of condensate stripper with highly efficient trays	100	Reduction in wastewater generation
Naju	Application of fiber filtering technology at water quality control units	180	80% reduction in suspended solids (SS)
Daesan	Efficiency enhancement in high-temperature wastewater treatment	77	Reduction in water contaminants

【 Air Quality 】

LG Chem is focused on reducing air pollutants from the source of origin through process re-engineering and materials improvement. Pollutants generated from our production processes are treated in pollution preventive facilities. Periodic inspections and checks are performed on the preventive facilities with checklists to maintain the facilities in optimal conditions. We plan to continue with inspections and replace existing and aging equipment with more efficient, optimized machines. Tele-Monitoring Systems (TMS) installed in major pollutant outlets screen the level of air pollutants on a real-time basis and transmit the data to the Control Center operated by the EMC. To prevent leakage of pollutants from non-point pollution sources, portable detectors are used to measure leakage and immediate repair or replacement work follows if problems are found. The basic unit of dust discharged shows a rise compared to the previous year due to changes in the controlled pollutants (gaseous materials to dust)

▼ Improvement Initiatives for Air Quality ▼

Site	Improvement initiatives	Investments	Impact
Ochang	Installation of highly efficient air pollution prevention units (RTO)	1,929	Reduced pollutants and feedstock use
Ulsan	Improvement of preventive facilities for printing units (RTO)	932	Reduced VOC emissions (6.5ton/year)
	Exhaust duct improvement in foam units & additional preventive facilities (electrostatic precipitator)	300	Reduced pollutants
	Dry lamination RTO overhaul	192	Reduced pollutions
	Establishment of monitoring system for air pollution prevention	41	Shortened response lead time
	Installation of covers for wastewater treatment facilities	38	Reduced odor
Cheongju	Installation of 3rd RTO	800	Air pollution prevention (Reduce malodorous density by 100 times)
Yeosu	Installation of CTI quench cooler	300	Reduced air pollutants (200m <sup>3</sup> /hr)
	Expansion of RTO treatment capacity	200	Reduced odor and VOC density
	Installation of external steam supply system	150	Reduced air pollutants and energy use
	Improvement of scrubbers for efficiency enhancement	100	Reduced dust emission with scrubber efficiency
Iksan	Replacement of coolant for cooling units	100	Reduced GHG emissions
	Enhancement of RTO system	64	Reduced odor
Daesan	Improvement of dust collecting equipment	43	Reduced dust emissions
	Addition of LDAR Inventory	21	Improved non-point pollution sources

(KRW million)

Basic Unit of Dust/SOx/NOx Emissions (2008)

(kg/product-ton)

Dust  
SOx  
NOx



【 Soil Quality 】

LG Chem maintains rigor in managing soil-contaminating facilities from its installation to decommissioning in line with our internal guidelines on soil pollution control. Before we install the facilities vulnerable to soil contamination, we make sure thorough reviews are performed by the relevant departments in advance. We take extra care to prevent the pollutants from permeating into the soil by paving the facility areas with concrete and waterproofing them. Also, bund walls are placed and regularly inspected to block the outflow of pollutants into the surface and protect soil from leakage of stored materials. Annual surveys on soil conditions show that the pollution levels in the vicinities of the polluting facilities are controlled within the legal thresholds set forth by the Soil Environment Conservation Act of Korea.

▼ Flow Chart for Soil Quality Management ▼



【 Toxic Chemicals 】

Toxic chemicals are controlled with maximum rigor at LG Chem from their warehousing to disposal. To prevent leakage accidents, monthly maintenance checks are conducted at all sensors and interceptors installed in warehouses along with protective gears kept for use in case of contingency. Emergency drills are performed on a regular basis as well. Moreover, LG Chem takes a scientific approach to managing the emission levels through Toxic Release Inventory (TRI) to bring down the use of toxic chemicals and substances every year. The basic unit of toxic chemicals discharged in 2008 went up due to a volume growth of the products that use toxic chemicals as its feedstock. LG Chem signed a voluntary agreement on reducing toxic release (known as 30/50 program) with the Ministry of Environment at a site level. We also introduced Leak Detection and Repair (LDAR) system in 2004 to bring down the levels of toxic chemicals emitted to the air through non-point pollution sources, e.g., pumps, valves and flanges. Under the system, we identify non-point pollution sources in our processes and carry out regular repairs and maintenance work.

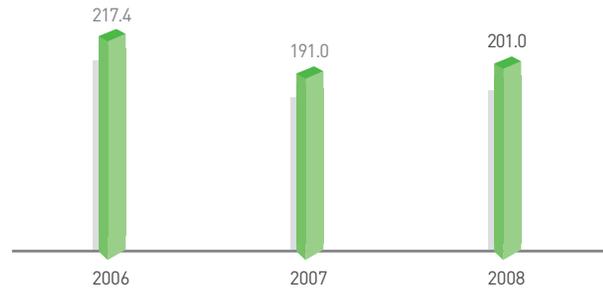
In response to the Ministry of Environment's pilot disclosure on toxic release in 2008, LG Chem set up a webpage and disclosed TRI data from five major sites along with their mitigation plans.

▼ Improvement Initiatives for Hazardous Chemicals Control ▼

Site	Improvement initiatives	Investments	Impact
Naju	Installation of a reverse osmosis at water treatment units to reduce use of toxic substances	585	Reduced toxic substances (hydrochloric acid) 1.8 → 0.1kg/day
Yeosu	Optimization of pH in electrolytic cells to reduce hydrochloric acid	5	Reduced usage
Daesan	Improvement of loading cases in disaster prevention vehicles	4.5	Enhanced emergency preparedness
Ulsan	Installation of contingency signboards and advanced preventive equipment	4	Improved emergency response
Cheongju	Standardization of TRI	-	49% reduction in non-point air pollutants

Basic Unit of Toxic Chemicals Usage

[kg/product-ton]



▲ TRI Disclosure Webpage

# Responding to Energy and Climate Change

Reducing greenhouse gas and energy use is a top management priority for LG Chem.

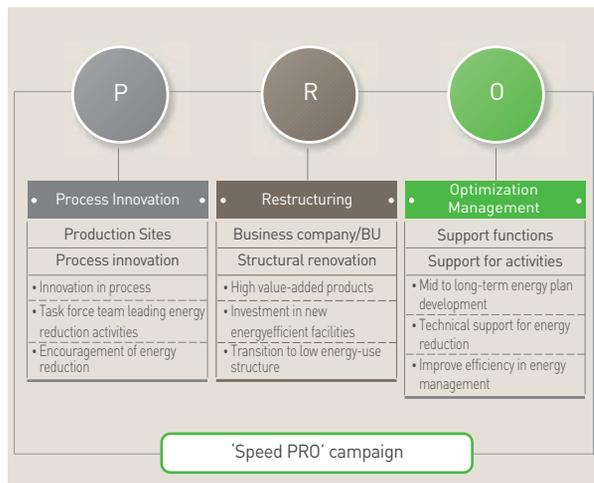
We are proactively responding to Climate Change and strongly driving environmental management to minimize impact from changes in the global energy landscape.

## Energy

### 【 Energy Vision 】

Our energy strategy is designed to build an environmentally sound production process through energy innovation, with a focus on the following three areas: structural transition to low-energy consumption; maximization of energy efficiency; and enhancement of energy management technologies. LG Chem is going all out to develop energy saving technology and facilitate information exchange with clear role sharing between the head office and the sites. To drive energy innovation, we developed mid-to long-term plans by phase (the first phase for 2000-2005 and the second phase for 2006-2010). Our first-phase plan resulted in overall energy reduction of KRW 75.4 billion, overachieving the target of KRW 63.7 billion by KRW 11.7 billion. Under the second-phase plan, we have so far cut KRW 177.4 billion in energy cost by 2008. Energy savings are calculated based on the reductions gained from energy saving projects in a given year.

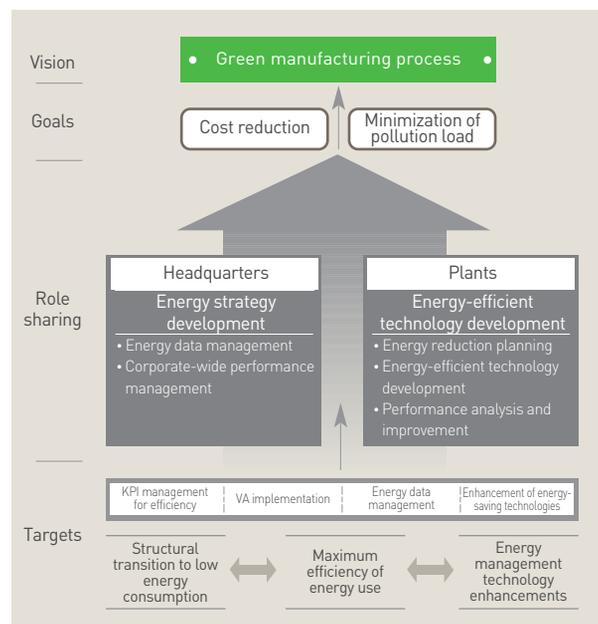
### ▼ Speed PRO Campaign Overview ▼



As part of energy saving programs, all our employees are engaged in the 'Speed PRO' drive aimed at process innovation of the sites, energy restructuring of the business divisions and optimization through involvement of support functions.

At the end of every year, our company holds energy innovation forum to share success cases and motivate people towards energy reduction. We assess our progress in annual energy reduction efforts and roll out best practices across all sites.

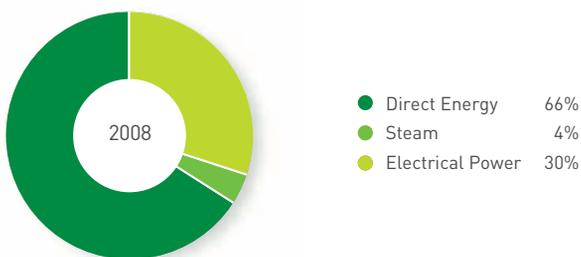
### ▼ Energy Management System ▼



【 Our Energy Use 】

LG Chem sets and pushes ahead with the energy reduction targets every year and mid- and long-term targets. The Ton of Oil Equivalent (TOE) went up by 2% year-on-year in 2008 due to acquisition of the Gimcheon Plant. By energy source, indirect energy sources represent 34% (30% for electricity & 4% for steam) and direct sources take up 66% of the TOE.

Energy by Source



【 Energy Saving Projects and Outcomes 】

Every year, LG Chem selects energy saving projects and monitors its implementation to bring down energy cost. We held energy innovation forum every year to share energy technologies and performances across our sites.

▼ Energy Innovation Projects in 2008 ▼

Yeosu NCC	Suspension of RTO operation through VOC gas boiler combustion
Yeosu BPA	BPA energy optimization through process simulation
Yeosu SM	Securing SM competitiveness through low-cost energy source
Yeosu VCM	Integrated operation of EDC refinery process through process destruction
Naju Octanol	Energy innovation through next-generation process development
Cheonju Energy	Facilitation of energy reduction through unit cost differentiation

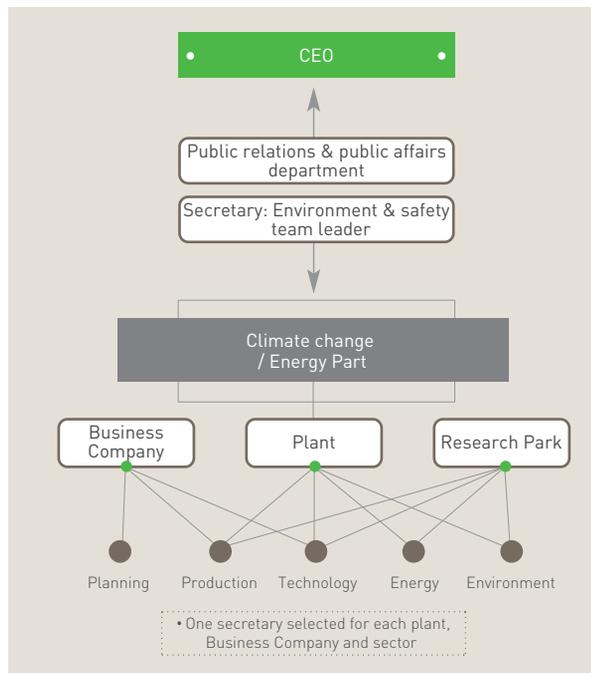
Responding to Climate Change

We are phasing in response measures for Climate Change and implementing GHG mitigation projects continuously to mitigate global warming.

【 Organization Structure for Responding to Climate Change 】

LG Chem has operated the Climate TFT since its launch in December 2004 to address issues of climate change. Starting 2009, the responsibility has been undertaken by the Climate Change/Energy Part staffed with four personnel from the HQ and representatives from 10 sites (It sits in the Environment & Safety team under PR/Public Affairs Department at the head office). Site representatives are charged with collecting, maintaining and reporting information and data on GHG emission sources and reduction activities at their plants along with developing GHG abatement projects. The head office takes on a more comprehensive role for global trend analysis, government interface, data collection, training and long-term strategy development.

▼ Responding to Climate Change-Organization Chart ▼



【 Greenhouse Gas Management 】

To lay a platform for responding to climate change, LG Chem has phased in GHG inventory development, GHG inventory verification and GHG management system.

We finished our first phase in developing GHG inventory in 2005 and are currently in the process of developing GHG inventory for the former LG Daesan Petrochemicals and LG Petrochemical which were merged in 2006 and 2007 respectively.

Greenhouse gas inventory contains direct emissions from stationary combustion facilities, transportation, process and fugitive sources as well as indirect emissions including power and steam. The inventory is built on and managed with internationally credible guidelines such as the guidelines of Intergovernmental Panel on Climate Change (IPCC) and GHG protocol of the World Resource Institute (WRI).

We get independent verification on our GHG inventory from the GHG Certification Office under Korea Energy Management Corporation (KEMCO)-a UN designated verification & certification entity for clean development mechanism (CDM). Inventory verification was completed for Cheongju and Ulsan plants in 2006, with Ochang Techno Park and Yeosu (VCM) plant following suit in 2007. We plan to expand inventory verification to cover other sites in 2009.

**【 Greenhouse Gas Emissions 】**

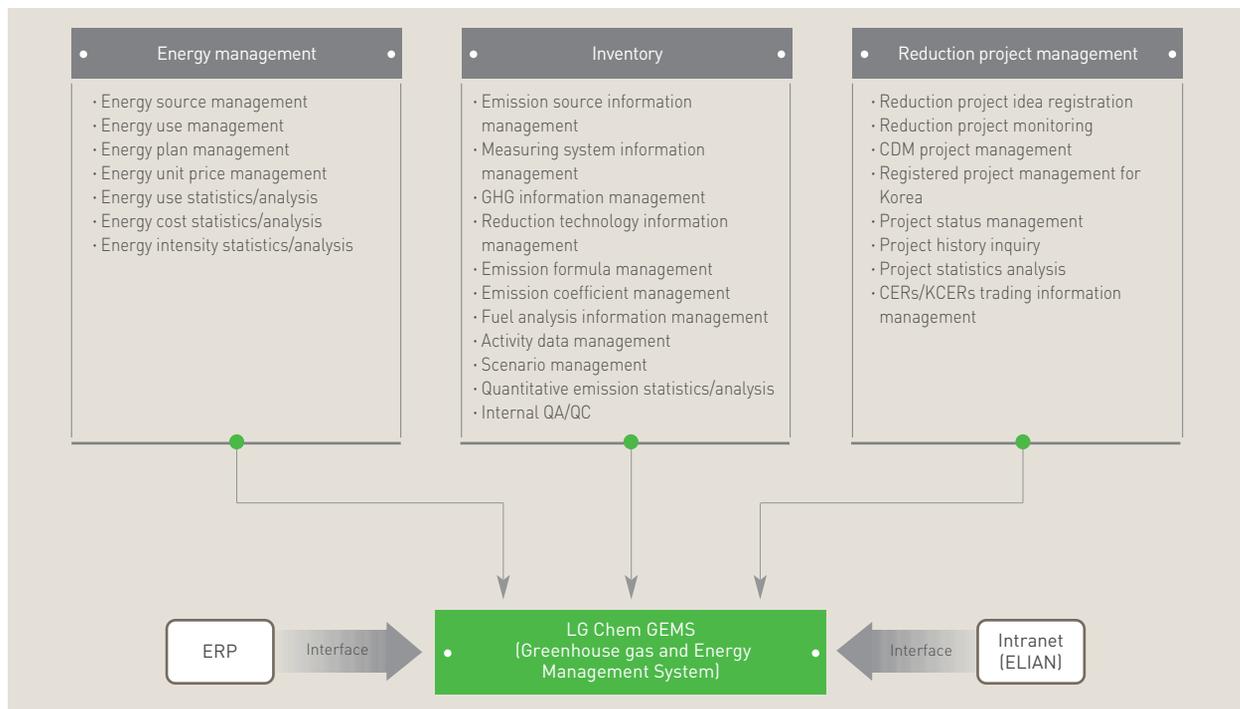
Based on our experience, LG Chem has built a web-based GHG management system and performed tests in 2007 and 2008. The web system is configured with three modules-energy management, inventory and reduction project management. In 2008, we finished entering historical process data into the system for those sites already verified for their GHG inventories and will bring data into the system for all other sites in 2009.

**▼ Greenhouse Gas Emissions ▼**

[Sites verified by third party]

Site	GHG Emissions (tCO <sub>2</sub> )	Year
Cheongju	149,343	2005
Ulsan	119,074	2005
Yeosu VCM	479,600	2006
Ochang	94,834	2006

**▼ Greenhouse Gas Management System ▼**



【 Greenhouse Gas Reduction Projects and Performance 】  
We carry out GHG reduction projects and register resulting reduction performance with the National Registry. The registered projects then get annually monitored and independently verified to be managed as certified emission reductions (CER). The Climate change/energy part at the headquarters work as a training and administrative secretariat for developing project design document (PDD). Process owners at each site are responsible for developing PDD, validation, monitoring report and verification.

There are a total of 21 projects registered with the National Registry - 9 projects in 2006, 7 in 2007 and 5 in 2008. For the 10 registered projects independently verified in 2007, we have gained a total 91,752 tCO<sub>2</sub> in CERs and 156,678 tCO<sub>2</sub> in CERs for 14 projects from the government in 2008.

【 Pilot Implementation of In-house Emissions Trading 】  
Under the MOU for internal emissions trading signed with the Ministry of Knowledge Economy in February 2006, we are carrying out the first phase (2007-2009) of an in-house emission trading system. After building a framework for the emissions trading in 2007, we introduced a pilot trading scheme for 5 production teams in the Cheongju Plant (Optical, circuitry materials, decorative materials, batteries and window materials) and plan to apply this internal scheme across all sites in 2009.

▼ Projects Registered in the Greenhouse Gas Registry ▼

Plant	Project	Emission reductions (tCO <sub>2</sub> )	Year
Yeosu(NPG)	Enhancement of NPG refining method	20,638	2006
	Fuel switch for steam boiler (B-C → LNG)	18,587	2006
Naju	MVR application to isomer separation process	10,637	2006
	Efficiency improvement for W.O.U filtered water treatment	1,151	2007
	High-temperature type heat recovery system for VCM quenching process	19,189	2006
Yeosu(VCM)	Heat recovery for condensate	3,605	2008
	Stack heat recovery for pyrolysis	4,667	2007
	Heat recovery from quench water and condensed water from NCC	32,045	2006
	Fuel switch for EDC pyrolysis furnace (pentane→methane)	6,972	2006
Daesan	Recovery of re-evaporated steam using TVR	3,612	2007
	Heat recovery system for BRU De C9 tower process	5,715	2007
	Heat recovery for #2 GHT reactor at BRU plant	7,030	2007
	Switch to cleaner fuel for foaming process (C9+→LNG)	2,348	2006
Ulsan	Switch to cleaner fuel for in-process steam boiler (C9+→LNG)	10,908	2008
	Switch to cleaner fuel for in-process heat transfer medium boiler (C9+→LNG)	2,090	2008
	Installation of steam super-heater economizer at SM reaction process	1,587	2006
Yeosu(SM)	Reduction of fuel-based manufacturing steam use	50,952	2007
	Heat recovery for vaporization tower	32,544	2008
Cheongju	Installation of heat recovery boiler at thermal oxidizer (TO)	963	2006
Yeosu	Rationalization of instrument air (IARI) supply	673	2007
Yeosu(NCC)	Installation of feeding heat exchanger for de-ethanizer tower at NCC plant	12,186	2008
	Total	248,099	

# Responding to REACH

LG Chem has completed the pre-registration process through active communication and cooperation with the suppliers and customers. We plan to respond effectively to the REACH regulations by further consolidating our joint response across supply chain, to become the true solution provider for our customers.

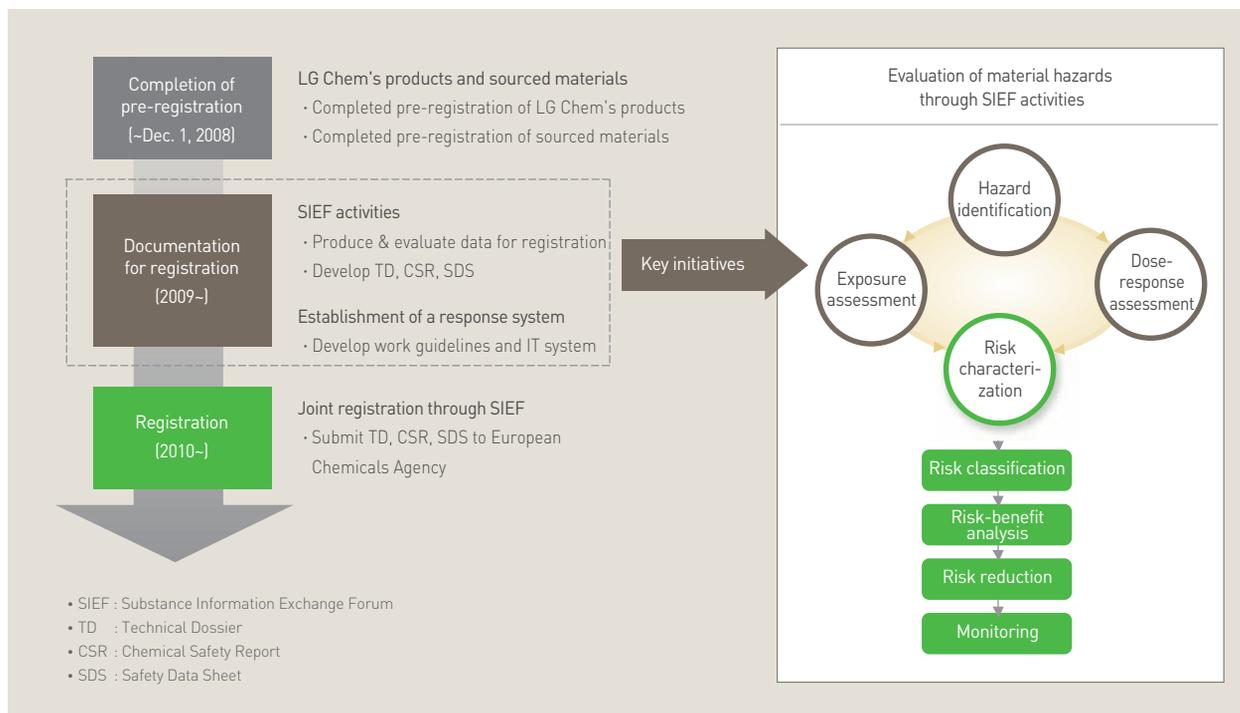
## Completion of the Pre-registration

The REACH regulations are a set of new regulations governing registration, evaluation, authorization and restriction of phase-in substances manufactured and imported into the EU region with over one tonnage in volume per year, based on their quantity of production, import and hazard levels. As the REACH regulations took effect as of June 1, 2007, companies that have failed to pre-register during June 1 and December 1, 2008 are no longer allowed to export chemical materials to the EU region unless they complete registration.

## Completion of the Pre-registration through Supply Chain Collaboration

Starting with internal trainings in 2006, LG Chem further organized REACH conferences and supported the pre-registration process of our materials suppliers to jointly respond to the regulations. Also, we identified our indirect export volume to the EU region through our customers and included the amount in the pre-registration volume, thereby delivering solutions to help our customers handle their business securely in the EU markets.

### ▼ Timeline for REACH Response ▼

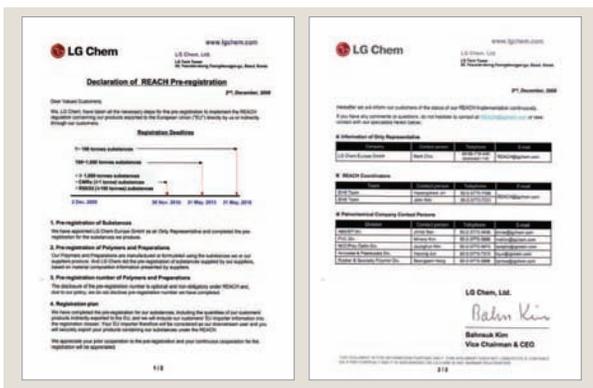


### Information Sharing and Customer Value Creation

LG Chem has pre-registered 1,534 substances directly or indirectly exported to the EU and is sharing the results of the pre-registration with our customers through the Pre-registration Declaration.

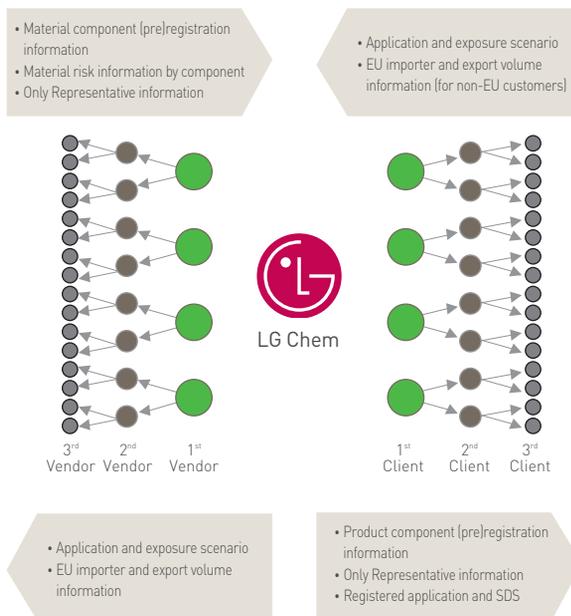
The pre-registration for the REACH has enabled continued export to the EU region as the EU importers who work with companies that directly export or formulate substances, polymers or preparations manufactured by LG Chem are now recognized as the downstream users of LG Chem.

#### ▼ Pre-registration Declaration ▼



### Supply Chain Communication for Registration

Collaboration across the supply chain and engagement in the Substance Information Exchange Forum (SIEF) are critical in developing documentation for registration. As such, we will actively partake in the SIEF activities for each of the substances subject to registration, and facilitate seamless collaboration and communication with our materials suppliers and customers.



### Plan for Registration

To register for REACH, we have to prepare technical dossier (TD), chemical safety report (CSR) and safety data sheet (SDS) for the substances and submit the documentation to the European Chemical Agency (ECHA) within a defined period of time as per their EU export volume and risk levels.

#### ▼ REACH Registration Schedules ▼



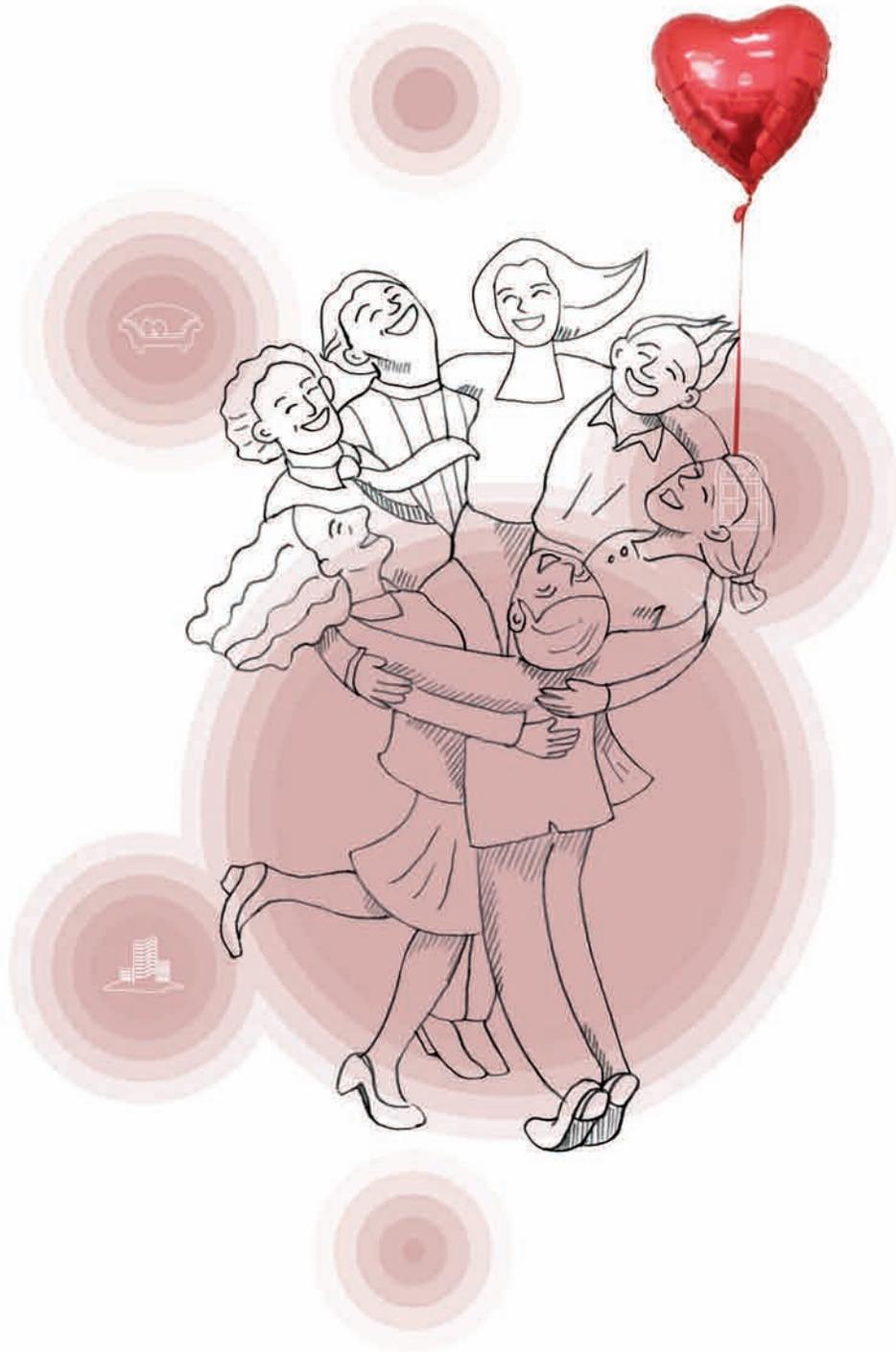
## Society

64 \_ Talent Management and Labor Management Collaboration

70 \_ Safety & Health

72 \_ Business Partners

74 \_ Social Contribution



Society v



# Seeking the true heart in human nature

Society-where people live together

A healthy and strong society thrives on the warmth and love of people.

Making a difference to the world with a spirit to care for others is what inspires everyone at LG Chem.

# Talent Management and Labor-Management Collaboration

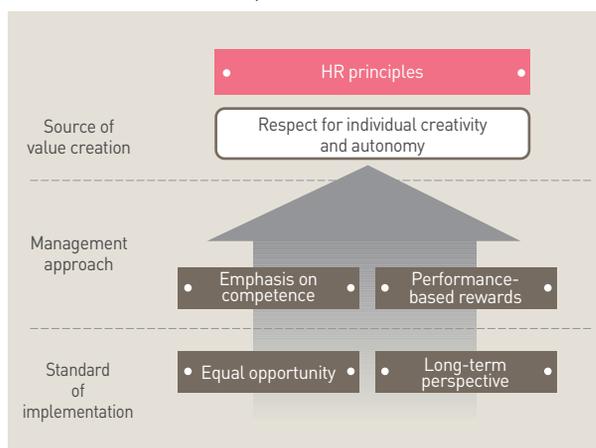
## Talent Management

LG Chem respects individual creativity and autonomy and values their capabilities. We foster well-balanced people equipped with both professional and emotional competencies. Moreover, we believe in a horizontal relation between our labor union and management and seek to build a community-type labor management relations that promotes mutual respect and equality between the union and the company.

### 【 Human Resource Principles 】

We manage our human resource in a way that upholds 'respecting human dignity - as it forms the very foundation of LG Way that guides management principle of LG. Our HR principles, used as indicators of personnel and organizational management, are designed to promote creativity and autonomy in people and support them to develop and realize their individual capabilities to the fullest extent possible through performance management.

### ▼ Human Resource Principles ▼



### 【 Our People 】

We value people with professional and emotional excellence. We employ and nurture people who are team players embracing the core values as well as have strengths in knowledge, skills and language needed to perform their jobs effectively.

Our People

**Are Loyal to their Principles**

- Having a commendable character and attitude to realize principles of the 'Jeong-Do' Management
- Ready to proactively respond to changes in the global market landscape

**Are Exceptionally Creative**

- Leading the change with unique individuality and ideas for self-innovation
- Creative and entrepreneurial, capable of leading the change and exploring future

**Have Integrity in Values**

- A positive thinker and team player that strives to realize the vision
- Having ownership in their decisions, actions and consequences of their actions

**Challenge the Limits of Excellence**

- Dedicated to continuous self-development in pursuit of global excellence
- Competent talent with the right potentials and skills to win in the global business competition

### 【 HR Development Program 】

**Nurturing Core Talent\_** Our High Potential Individual (HPI) program and next-generation global business leader program are designed to ensure early discovery and systematic development of next-generation entrepreneurs. This core talent goes through systematic learning for business management, language and leadership skills and individually establishes and implements Career Development Program (CDP) for job competency development. We also send our best brains to diploma courses at home and abroad to build them into truly global talent. In 2008, we sent one employee to a top MBA course overseas and two more employees to Korean MBA programs.

In addition, we have in place the 'Regional Specialist Program' to nurture competent workers that will lead in globally strategic regions. In 2008, 12 regional specialists were selected and dispatched to China, Russia, Brazil and the Middle East.

**Succession Planning\_** Our succession plan ensures early identification and development of successors in key positions of business operation and secures continuity in leadership. Two or three candidates are selected every year for each position, taking into account global skills such as leadership, management and linguistic ability along with job specialty required. The HR Committee discusses plans and methods for nurturing the candidates and renders tailored support for their individual development.

**Education Program\_** The focus of our HR development programs in 2008 was placed on nurturing entrepreneurs for global business operation and specialists with expertise in functional areas. Business management skill trainings for HPI were conducted in collaboration with overseas business schools and growth strategy trainings were delivered for next-generation global business leaders. Moreover, regional specialists were selected and dispatched to our key strategic business regions to deepen their knowledge in a given geography to lead global business activities. Under the framework for function-specific education, professional job training courses were offered to cultivate job specialists equipped with global expertise.

### 【 Workforce Status 】

As of 2008, we employ 10,737 people (full-time basis) of which 80.8% are working at worksites the head office. There is 9,727 male and 1,010 female employees working at LG Chem.

Total 490 people retired in 2008, with a male-to-female ratio at 78.6% : 21.4%. By age bracket, retirement under the age of 30 was 17.8%, those in the 30s at 46.9%, 40s at 14.3% and over the age of 50 at 21.0%. Our area breakdown shows 44.9% retirees came from the head office, 23.3% from the Research Park and 31.8% from plants.

#### ▼ Employees by Area ▼

		(person)		
Category		2006	2007	2008
Plants		6,999	7,701	7,623
		(65.7%)	(71.5%)	(71.0%)
Research Park		1,330	1,140	1,057
		(12.5%)	(10.6%)	(9.8%)
Head office		2,325	1,923	2,057
		(21.8%)	(17.9%)	(19.2%)
Total		10,654	10,764	10,737
		(100%)	(100%)	(100%)

#### ▼ Employees by Age ▼

		(person)		
Category		2006	2007	2008
50 years of age or above		855	985	1,125
		(8.0%)	(9.2%)	(10.5%)
40 to 49		2,848	3,219	3,282
		(26.7%)	(29.9%)	(30.6%)
30 to 39		4,609	4,737	4,792
		(43.3%)	(44.0%)	(44.6%)
Under 30		2,342	1,823	1,538
		(22.0%)	(16.9%)	(14.3%)

▼ Overseas Workforce Status ▼

(person)

	Total	Local hires	Ratio
Overseas workforce	5,517	5,347	96.9%
Managerial levels or above	185	88	47.5%



**Global Talent Recruitment & Development**

LG Chem aggressively attracts and develops competent human resources abroad to accelerate localization of overseas business operation. We are currently in the process of localizing major posts, especially around the Chinese region, to facilitate localization of our overseas operations. As of the end of 2008, LG Chem has presence in 15 countries across the world (China, Taiwan, India, Vietnam, Thailand, Indonesia, Singapore, Japan, U.S., Brazil, Germany, Switzerland, Poland, Turkey and Russia), operating a total of 29 overseas subsidiaries and representative offices.

We employ 5,517 people abroad, of which 5,347 are local hires (96.9%). Among them, 4,378 people are based in the Chinese region, accounting for 79.4% of total overseas workforce, including 4,263 that are locally hired. Moreover, post localization rate for part leaders or above represented 76%, or a 6%p rise from 2007. In India, there are a total of 342 people working in the region, taking up 6.2% of total overseas workforce. In addition, we are continuing with our initiatives to foster local workers who can competently lead local operations in place of expatriates from the head office. We implement a wide range of programs to proactively upgrade capability of the local hires, such as local Chinese HPI programs, HQ trainings, HR/finance workshops and other function-specific workshops as well as LG Way dissemination & internalization training.

Taking a closer look at our local hiring process, we organize regular on-campus recruiting tours twice a year at major Chinese universities to pick about 100 entry-level staff with humanity/engineering backgrounds. We also carry out unscheduled recruiting throughout the year to bring experienced human capital on board with a required set of business skills for successful local operation.

LG Chem India brings in interns from local industrial training institutes or Polytechnic College for the statutory period of internship and leverages them as an additional pool of technicians should there be a need for staffing in the future. In Europe, experienced workers with sales/marketing expertise are mostly hired. Multilingual skills are preferred in recruitment given the multicultural characteristics of the region.

**Welfare**

LG Chem provides a wide range of welfare benefits for our people to lead healthy and secure lives. Our commitment to competitive welfare instills a stronger sense of pride in themselves and the company and promotes a great workplace.

**【 Employee Benefits 】**

Our welfare system is built on three different schemes—a basic benefit scheme and a flexible benefit scheme on top of the statutory social security scheme (four insurances required by the State.) Taking a closer look at the two schemes offered by the company, the basic benefit plan covers housing support for increased security, livelihood assistance (e.g., healthcare, tuition/group insurance, funerals and congratulatory supports) and leisure support for vacation homes and recreational facilities. The flexible benefit plan gives a broad range of options for individuals to cater to their specific needs and lifestyles, with a view to promote work & life balance (WLB) of our people. The scheme is designed to support personal leisure and self-development of the recipients.

LG Chem annually publishes welfare guidebooks and invites employee feedback to continuously enhance and refine the welfare system, thereby improving employee satisfaction.

**▼ Flexible Benefit Plan ▼**



▲ Internal Website for Welfare

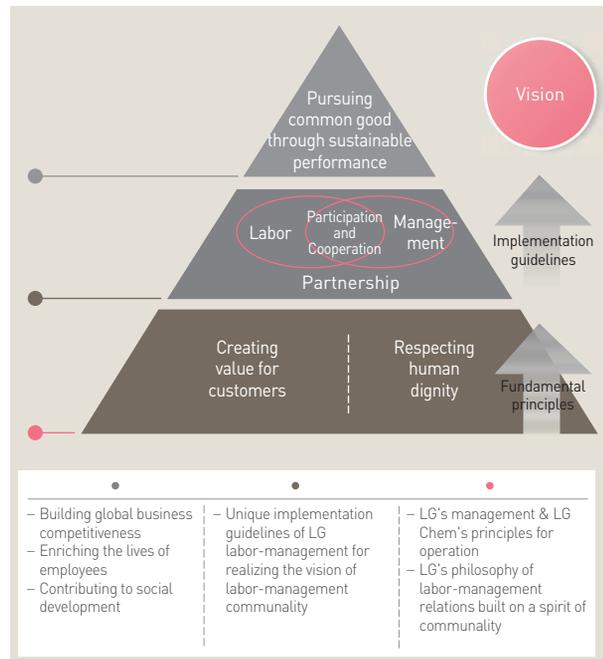
**Labor-Management Cooperation**

We believe in horizontal labor and management relations based on mutual respect, putting the union and the Company on an equal footing.

**【 Vision for Labor-Management Partnership 】**

Embracing our guiding principles of 'creating value for customers' and 'respecting human dignity', LG Chem envisions a labor-management partnership of participation and cooperation to drive sustainable performance in pursuit of common good.

**▼ Vision for Labor-Management Partnership ▼**



【 Three- Dimensional Model for Labor and Management 】

LG Chem aims to build a partnership between labor and management on a genuine sense of communality. We have therefore put in place a unique model for collaboration that facilitates interactive participation and cooperation from three different dimensions interlinked with labor-management relations- corporate management, field operations and collective bargaining.

The direction of cooperation between the labor and the management is defined as follows: to enhance the value of the company and employees through transparent and open management in the corporate management dimension; to maximize productivity through strong teamwork and innovation in the field operation dimension; and to establish a business-oriented labor-management relation on the basis of rational labor-management practices and a productive negotiation culture in the collective bargaining dimension.

▼ Three-Dimensional Model for Labor-Management Cooperation ▼



【 Major Examples of Labor-Management Collaboration 】

**Corporate Management Dimension\_** LG Chem ensures a stronger field-driven management of top managers through the CEO's 'Dialogues with Employees' and the CHO's 'HR Networking.' Effective communication with the management is facilitated through 12 employee councils at each business unit. In addition, we measure how much trust our employees have in management activities and identify opportunities for improvement through annual satisfaction surveys.

**Field Operation Dimension\_** We run a wide range of team building programs and empower frontline managers in handling complaints and grievances to ensure field-driven personnel management. We are also dedicated to promoting a more decent workplace through operating a joint labor-management committee on industrial safety and health, and provide our employees with overseas industrial field trip opportunities to expand their horizon and gain insight into global business environment.

**Collective Bargaining Dimension\_** We share results of management activities and discuss key pertinent agendas through labor-management council held on a quarterly basis. We also run a joint labor-management taskforce team when there is a need to improve our HR/welfare system. In addition, we discuss ways to seek mutual growth between the labor and the management via joint workshops prior to annual collective wage bargaining and form a working-level committee during such negotiations to promote a productive culture for negotiation.

▼ Key Issues of the Labor-Management Council, 2008 ▼

Description	Details
Incentives	<ul style="list-style-type: none"> <li>• Sharing the criteria for incentive payment</li> <li>• Discussing the scale of incentive payment</li> </ul>
Staffing	<ul style="list-style-type: none"> <li>• Discussing staffing plans for key sites</li> <li>• Discussing manning for key sites</li> </ul>
Welfare facilities	<ul style="list-style-type: none"> <li>• Operation of in-house childcare facilities</li> <li>• Repairs for aging welfare facilities within worksites</li> <li>• Maintenance/repairs for company housing and dormitories</li> <li>• Route management of shuttle bus services</li> <li>• Canteen facilities and operation</li> </ul>
Others	<ul style="list-style-type: none"> <li>• Sharing key timelines on the company calendar</li> <li>• Coordination of joint scheduling</li> </ul>

### Visible Accomplishments from Labor-Management Collaboration\_

LG Chem successfully concluded collective wage bargaining negotiations amongst major sites unionized under the Korean Confederation of Trade Unions in 2008, utilizing our 'three dimensional model for labor-management cooperation' for participation and cooperation. In addition, 'Labor-management agreement for job security and investment attraction' was reached to promote collaborative growth through ensuring employment security and inducing investment. These accomplishments have become the source of competitiveness for the company, contributed to favorable working conditions and welfare for our people, and have in turn given LG Chem recognition for its significant contribution to labor-management stability in Korea

### Ensuring Human Rights

**Freedom of Association and Collective Bargaining\_** LG Chem recognizes the labor union as a partner for dialogue and engages in negotiation with the union for wage and collective bargaining agreement. We faithfully respond to the demands for collective bargaining and respect the union's right of collective bargaining by stipulating in the collective agreement that 'the Company engages in collective bargaining on an equal footing with the labor union.'

Moreover, the company ensures the freedom of unionization through non-intervention in the union activities and by not disadvantaging unionized workers on grounds of their participation in union activities.

**Prohibiting Child and Forced Labor\_** LG Chem complies with the rules for prohibiting the use of labor by children less than 15 years of age and the rules for forbidding labor against the free will of the workers, as defined by the Labor Standards Act.



▲ Joint Labor-Management Workshop, 2008



▲ Joint Labor-Management Overseas Industrial Field Trip, 2008



▲ Signing Ceremony for Wage and Collective Agreement, 2008

# Safety & Health

Safety & health of all our stakeholders constitute a critical component of LG Chem's management principles. We are committed to continual improvement across production, purchase, sales and service.

## Safety & Health Management System

Under our management principles and corporate safety management regulations, each plant develops their own policies for safety and health at workplace and embeds safety and health in management. We have adopted Process Safety Management (PSM) to ensure legal compliance and have implemented a safety and health management system such as OHSAS 18001 and KOSHA 18001. We have also integrated various safety and health systems into Responsible Care—a voluntary, sustainable initiative of chemical companies to bring increased efficiency and performance.

### ▼ Safety and Health Management System ▼

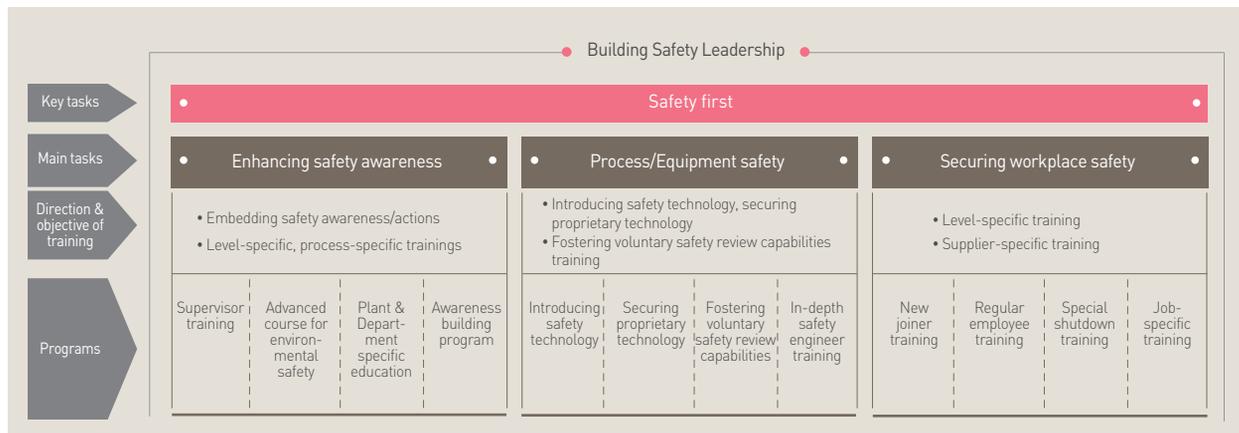


## Industrial Accident Prevention

Safety policies and objectives are established at each individual site and safety audits, training and education are provided to prevent industrial accidents and remove risks. There are largely site-specific safety audits and corporate-level safety audits with external agencies providing expertise when needed. The Yeosu plant established their internal technical standards for 15 main, high-risk facilities for accident prevention and performed inspections with experts from the Korea Occupational Safety & Health Agency for flare stacks. Training and education is fundamental to ensuring a safe workplace. As such, LG Chem is moving away from large group trainings to more practical training courses that are more relevant for the workers. For example, departments or shifts get trained on danger anticipation or share instances of near miss.

Each plant develops and runs their own safety training programs customized to meet their specific needs. In 2007, the Yeosu plant developed a safety leadership curriculum to enable the site leaders to improve their safety mind and philosophy, embrace safety theories and facilitate safety communication. The training was launched in 2008 and continues to date.

### ▼ Safety Leadership Curriculum ▼



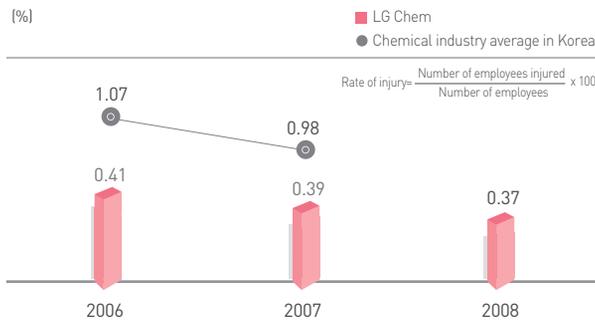
At LG Chem, our pursuit for safety goes well beyond our workplaces to extend to our business partners. That is why we have in place a process for rigorous evaluation and extensive support. Qualified suppliers who have been screened, selected and registered receive technical and educational assistance as well as equipment inspections, followed by evaluation. The suppliers with high evaluation scores become qualified to gain a preferential position for bidding in supply contracts.

### Industrial Accidents

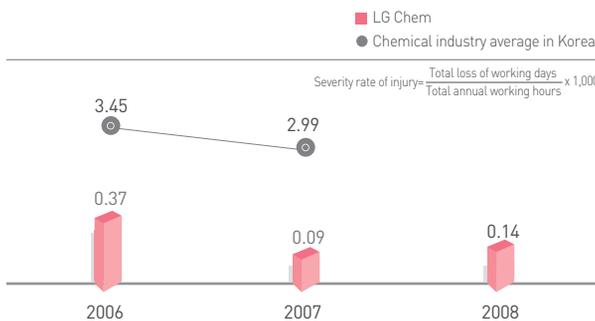
Industrial accidents are measured by the rate of injury, the injury rate per thousand men, the frequency rate of injury and the severity rate of injury, etc. LG Chem uses the rate of injury that indicates the frequency of disaster occurrence and the severity rate of injury which shows the scale of disasters as our performance indicators for accident prevention.

There has been a continued downward trend in industrial disasters. In 2008, off-site accidents accounted for 10.0% of total industrial accidents and accidents with lost work days exceeding 90 days represented 42.5% - an increase from 20.9% in 2007, but nevertheless the severity rate of injury remained very low against industry average.

#### The Rate of Injury



#### The Severity Rate of Injury



#### ▼ 2008 Industrial Disasters ▼

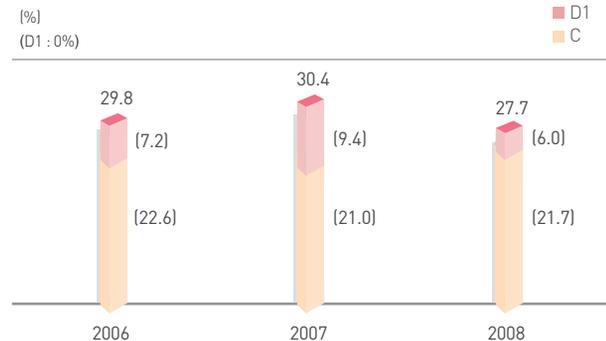
Scale of disaster (work day loss)	On-Site		Off-Site			Occupational disease	Total
	On-Job	Off-Job	Picnic/Sports day	Out-side Duty	Etc		
Under 90 Days	50.0	-	7.5	-	-	-	57.5
Over 90 days	35.0	-	2.5	-	-	-	42.5
Death	-	-	-	-	-	-	-
<b>Total</b>	<b>90.0</b>			<b>10.0</b>		<b>-</b>	<b>100</b>

On-site: At the workplace  
On-job: On-duty  
Off-site: Outside of the workplace  
Off-job: Off-duty(break-time, etc.)

### Health Promotion Activities

LG Chem has in place a variety of health care programs for our people. They include onsite medical visits to prevent general and occupational illnesses, delivery of health information and physical therapy to protect against musculoskeletal diseases. There are also preventive activities jointly organized with external experts for noise-induced hearing loss, found common in manufacturing factories and yet difficult to treat. Diseases attributed by a poor working environment and conditions are almost non-existent among the LG Chem employees. However, there is a societal need for addressing the issue of adult diseases that affect many workers due to a westernized diet, lack of exercise, and smoking. Against this backdrop, LG Chem provides more physical fitness checkup facilities, workout facilities and physical therapy services, stages non-smoking and non-drinking campaigns and offers medical consultations for adult diseases. Our Cheongju plant deployed six sigma techniques and tools to build a risk-based prevention and management mechanism for cardiovascular disease. In addition, the plant hands out promotional booklets, puts up health promotion signboards and gives out blood pressure cuffs to help the employees live healthier lives.

#### The Rate of Prevalence



1. C (Concern): Workers who need to be tracked and observed due to concerns for potential disease
2. D1 (Diagnosed 1): Workers who need follow-up management as they are diagnosed with occupational disease
3. D2 (Diagnosed 2): Workers who need follow-up management as they are diagnosed with general disease

# Business Partners

LG Chem stays committed to parallel growth with customers and business partners through joint technology development, backed by a wide variety of development and support initiatives.

Guided by 'Jeong-Do' Management, we ensure fair opportunities to uphold the principle of free competition and build mutual trust and partnership for collaborative prosperity.

## Supporting Environmental Management of Business Partners

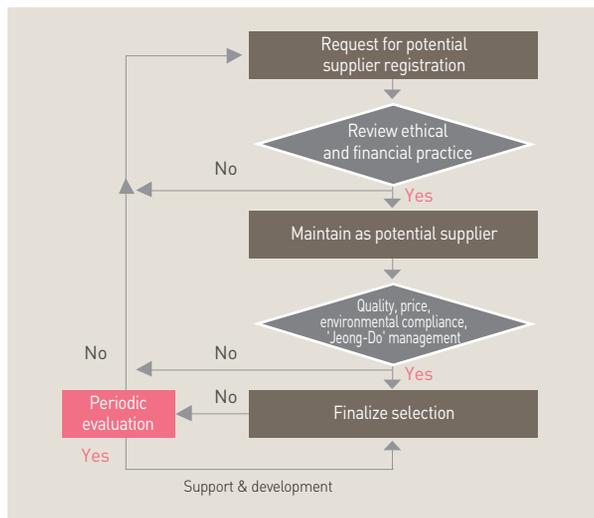
We believe that we can have a positive impact on environmental management practices of our supply chain by helping the business partners prevent potential environmental problems and minimize environmental impact. To encourage our partner companies to advocate environmental stewardship in their operation, we have put forth regulations on supplier management and guidelines for environmental management of the suppliers. In addition, we operated a purchasing taskforce to strengthen support for the suppliers in the pre-registration process for REACH at both domestic and overseas sites. The taskforce visited four overseas joint ventures including LG DAGU to educate suppliers and relevant process owners abroad.

## Selection and Evaluation of Business Partners

Our purchasing department registers and evaluates potential suppliers before it selects and formally approves as our business partners. During a preliminary evaluation, the applicants are reviewed for their ethical practices and financial stability before they can qualify as potential suppliers.

Once the potential suppliers engage in formal transactions with LG Chem, they can become shortlisted as our business partners when they satisfy our stringent standards for quality and price, fully comply with environmental regulations such as Restriction of Hazardous Substances (RoHS) and REACH and practice 'Jeong-Do' Management in their operations. We periodically track their performance afterwards to decide whether to support, develop or exit the suppliers. Supplier evaluations are performed and its results are checked via supplier evaluation system to encourage the vendors to identify areas for improvement and thus build needed capability.

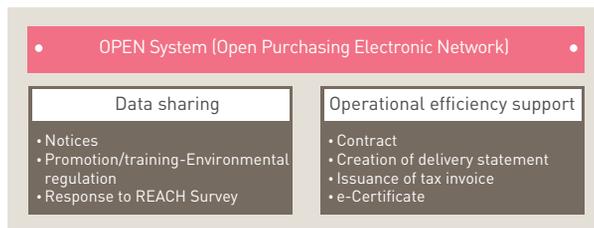
### ▼ Supplier Selection & Evaluation Process ▼



## Online Purchasing System

Open Purchasing Electronic Network (OPEN) system is LG Chem's integrated purchasing management system to bring transparency in transactions and facilitate communication across the supply chain. The OPEN system is designed to promote convenience and operational efficiency of our business partners as it supports data sharing, online contract, creation of delivery statement, online issuance of tax invoice and e-certification.

### ▼ Integrated Purchasing Management System-OPEN ▼



### Collaborative Partnership with Business Partners

In consideration of our business partners that are experiencing cash flow difficulties due to global financial crisis, LG Chem has broadened the scope of financial assistance through direct loan extension from the win-win partnership fund as well as indirect loan service through financial institutions. Such financing arrangements were extended to alleviate management uncertainties of the suppliers and build a model of mutually sustainable prosperity.

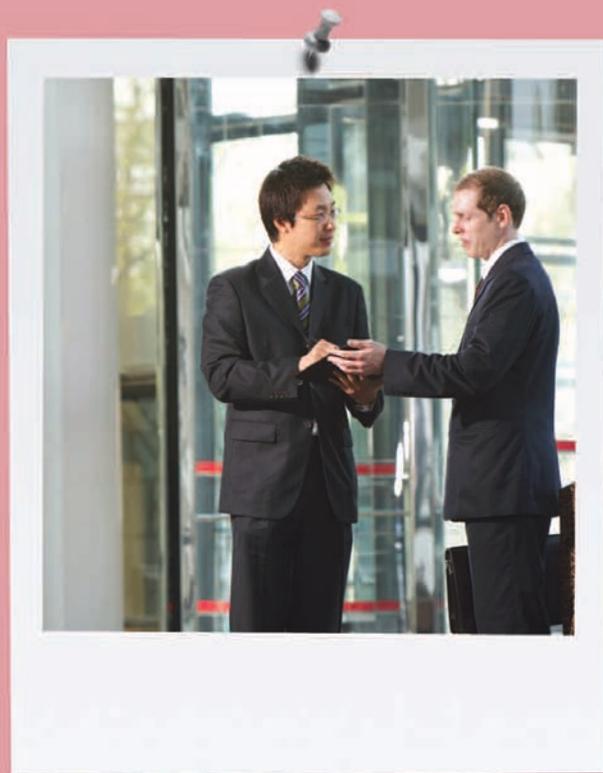
To promote fair trade, LG Chem adopted the following three guidelines - fair contract, fair supplier selection & operation and prevention of unfair trade - as the key principles of win-win management. On top of this, a support mechanism for enabling win-win partnership was set up to deliver assistance in five areas of financing, payment terms, quality control and technology development, HR & training and management innovation.

#### ▼ Framework for Collaborative Partnership with Business Partners ▼



### Helping our Business Partners for Management Innovation

We are working to build competitiveness across our supply chain to stay at the top of competition. Shifting away from rather passive initiatives such as productivity enhancement and materials cost savings implemented in isolation at our sites, we are now pressing ahead with 'Supplier Partnership Initiatives' to identify those vendors in need of development and support, and to carry out joint action plans. We stand by our suppliers in their effort to upgrade their productivity and quality to sharpen their competitiveness as our business partners.



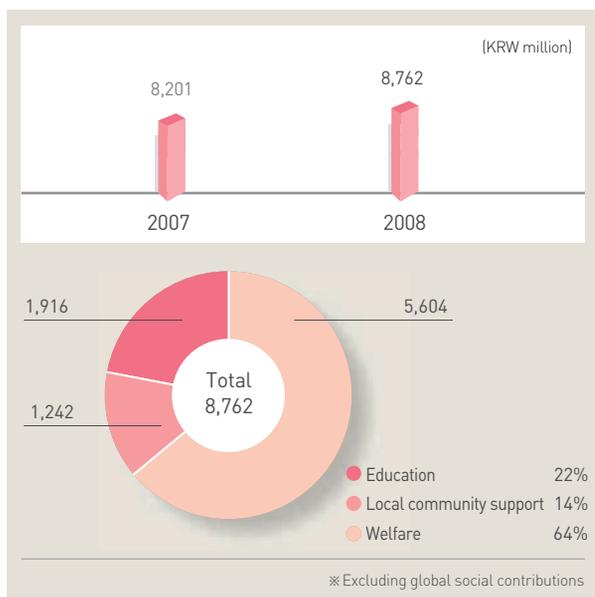
# Social Contribution

## Our Perspective

'Creative capitalism' is what we envision to build our management practices on to serve our society as a responsible corporate citizen. Moving beyond our existing management practices rooted in 'market-driven capitalism' and contributing to the growth of the national economy as a leading chemical company, we pursue 'creative capitalism'<sup>1)</sup> to reach out to our neighbors in need through social contribution efforts.

1) Creative capitalism: A term first used and popularized by the founder of Microsoft Bill Gates in his acceptance speech for receiving an honorary diploma from Harvard University in 2007 and during his speech at the World Economic Forum in Davos in 2008. The ideology calls for a new form of capitalism that goes beyond traditional giving and charity. Creative capitalism works both to generate profits and solve the world's inequities, using market forces to better address the needs of the poor.

### ▼ Our Social Contributions-Total and Breakdown ▼



## Theme (Areas)

Education, welfare, local community support and global social contribution were chosen as the four key themes that LG Chem needs to focus on to deliver more structured and targeted social contribution activities.

We have a firm belief that the future of Korea will be shaped by the youth - however, the reality is that they are often left marginalized in welfare projects relative to other groups. That is why LG Chem offers various targeted 'education' programs for the young people to build a more inclusive society for all.

As one of the four priority themes, we selected 'welfare' for relatively underprivileged people to help ease the ever-deepening economic polarization and make a better world for all.

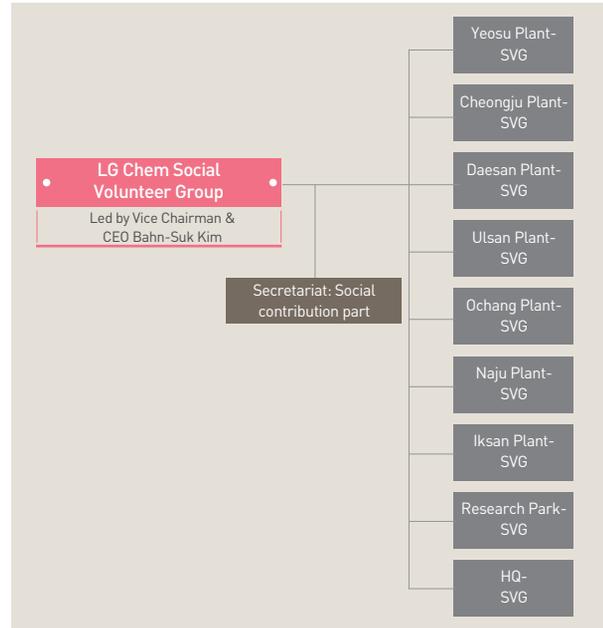
The German city of Leverkusen, nowadays known as a pleasant, high-quality industrial city, grew side by side with Bayer AG during the past 100 years. LG Chem also seeks sustainable growth with the local communities in which we operate, as we have a nationwide presence with 8 plants and one Research Park. Our commitment to mutual growth has led us to define 'local community support' as another critical theme of our social contribution and engage in various activities for local communities.

To LG Chem, the communities where our overseas subsidiaries operate in do not mean just another base for manufacturing or marketing. As our presence now spreads out to every corner of the world including China, India and the US, we are undertaking meaningful social contribution activities as a sustainable company devoted to fulfilling its social responsibility as a global enterprise.

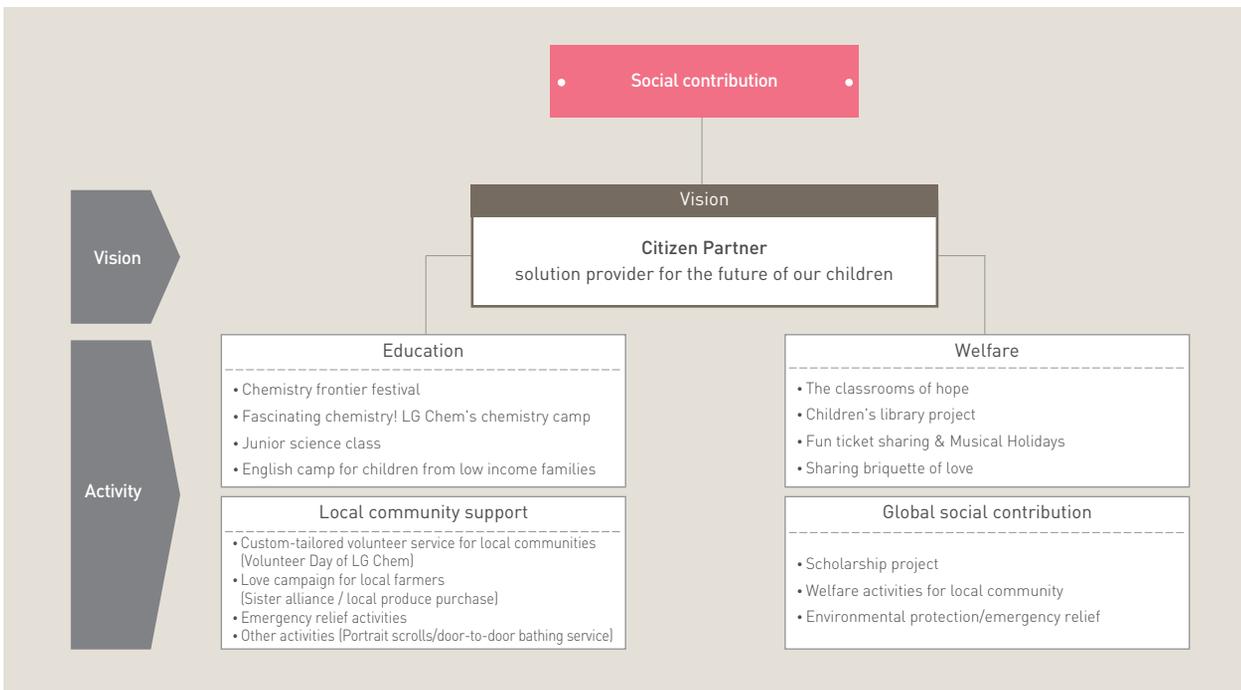
**Organization for Social Contribution Activities**

Guided by a corporate culture that stresses autonomy and creativity, LG Chem first began its social contribution effort by supporting the employees with their voluntary group gatherings and volunteer service. In 2004, a new milestone was reached in social contribution activities with the launch of 'Twin Angel Fund' - a matching grant system for donation. In May 2008, we set up a dedicated division for planning and managing social contribution and staffed new full-time hires to make our social contribution efforts more organized and systematic. Following in July, we officially founded the LG Chem Social Volunteer Group with 5 thousand employees under the leadership of the CEO, by integrating individual social volunteer groups from 8 plants in Korea.

▼ Organizational Chart for Social Volunteer Group ▼



▼ Social Contribution Strategy ▼



### Operational Methodology

Our social contribution activities are largely classified as follows: 'LG Chem social contribution projects' directly run by the dedicated organization; 'designated donations' funded by donations; and 'social volunteer group activities' financed and run by the Twin Angel Fund based on voluntary employee participation and their volunteer work.

'LG Chem social contribution projects' are directly planned and run by LG Chem mainly for youth education and welfare support. Chemistry frontier festivals and LG Chem chemistry camps are our outreach programs that reflect our identity as a chemical company. Through these projects, we provide talented yet underprivileged young students with unique learning opportunities in science and welfare benefits to discover and deepen their potentials as the leaders of tomorrow while promoting science and technology advancement.

#### ▼ Activities of LG Chem Social Volunteer Group ▼

	Number of volunteers participated	Total volunteer hours	Total number of activities conducted	Volunteer groups
2007	7,423	4,306	782	82 groups
2008	9,511	5,056	1,175	

'Designated donations' are funded by LG Chem's donations, with a view to build social safety network for the disadvantaged people. Every year, LG Chem entrusts the Community Chest of Korea with more than KRW 2 billion and one half of that donation (KRW 1 billion) is set aside for 'designated donations', such as 'children's library assistance', 'English camp for children from low-income families', 'musical holiday'. We are maximizing the impact of the projects by matching the beneficiaries with those business operators who can deliver real benefits.

Social volunteer group activities are consisted of voluntary fund raising and volunteer service for local community care, led by some 5,000 social volunteers of LG Chem.

On top of corporate-level donation, LG Chem has also been taking part in the LG Chem Twin Angel Fund scheme since 2005 - an advanced initiative driven by voluntary involvement of our employees and executives. It is a matching grant fund whereby the company matches employees' contributions. As a baseline, executives can set 1% of the base salary and employees KRW 2,008 (2xKRW 1,004) per account and request donations be deducted from their monthly checks up to 10 accounts. As of 2008, 4,728 people or roughly a 50% of our headcount in Korea have put money into the Fund and annual accumulation of KRW 560 million is used up for different volunteer causes.

#### ▼ Employee Fund Raising for Twin Angel Fund ▼

	Yeosu	Cheongju	Ochang	Naju	Iksan	Research Park	Subtotal
Time of adoption	2005.5	2005.7	2005.4	2007.5	2005.10	2005.5	
2006	95,387	51,598	32,186	-	8,574	28,366	216,111
2007	99,715	48,676	38,240	7,347	12,500	34,285	240,765
2008	117,068	42,000	39,964	4,457	13,325	37,000	253,814
Participation rate (person)	97% (2,013)	54% (861)	53% (783)	100% (210)	66% (162)	29% (255)	Total 4,284 persons

[KRW 1,000]

#### ▼ The Number of Participants for Chemistry Frontier Festivals ▼

	1st Festival ('04)		2nd Festival ('05)		3rd Festival ('06)		4th Festival ('07)		5th Festival ('08)	
	No. of schools	No. of proposals								
Science	15	139	17	249	18	302	19	341	20	370
Foreign language	5	44	4	15	5	101	6	14	8	132
General	194	401	133	220	167	308	125	260	208	499
Total	214	584	154	484	190	711	150	615	236	1,001

Every year, there are more than 1,000 social volunteer group activities led by a total of 82 social volunteer groups, set up at each unit organization in our 7 plants and one Research Park across Korea. They contribute 5,000 hours of their volunteer time for different causes. Their major volunteer services include 'The classrooms of hope', 'junior science class' and 'LG Chem volunteer day.'

#### 【 Education 】

**Chemistry Frontier Festival\_** LG Chem organizes 'chemistry frontier festival' in Korea every year - a chemistry competition targeted at high school students to cultivate future talent in science and technology and raise their interest in chemistry. During the past 5 festivals starting with the first competition in 2004, a total 3,395 teams (of 6,790 students) so far have participated and the number continues to grow. Indeed, the festival is now taking root as the best and biggest competition for the high school students.

The chemistry frontier festival is jointly sponsored by LG Chem, the Ministry of Education, Science and Technology, Hanwha Chemical, SK Energy and Honam Petrochemical Corp., and organized by the Korea Advanced institute of Science and Technology (KAIST). Applications for competition are submitted during April and May of each year and around 50 teams are shortlisted after a preliminary round in June. The contestants then move onto the final round and present the results of their science study at KAIST in September. The winners are announced and awarded in the following month. The winners in the top rank are given various benefits including a chance to get overseas training as well as special employment privileges if they join the co-hosting company.

**Fascinating Chemistry! LG Chem's Chemistry Camp\_** Our annual summer and winter chemistry camps are targeted at middle school students to increase relevance and familiarity of chemistry through various chemistry experiments and camp activities.

'Fascinating chemistry-LG Chem's chemistry camp' was first introduced in 2005 through our outreach programs that reflect our identity as a chemical company. The camps are held four to five times a year, participated by some 700 middle school students. To date, a total of 3,000 students have spent time at the camps.



▲ Chemistry Frontier Festival



▲ Fascinating Chemistry! LG Chem's Chemistry Camp



▲ Junior Science Class

This 3-day event offers opportunities to enjoy and learn at the same time. There are exciting chemistry experiments and spectacular magic shows for educational purposes, as well as other programs such as UCC contests and the King of Study to help the students with their lives at school and as part of a group. Such combination of programs has indeed fascinated the participants in the chemistry camps.

**Junior Science Class\_** The junior science class is a program for elementary school students to help them experience what science is really like through experiments and practice sessions as they mostly learn the subject only from textbooks at school. Our researchers working at the Daejeon Research Park volunteer as instructors for the class. There is a difference between these programs. The chemistry frontier festival and the chemistry camps are designed for ordinary middle and high school students, whereas the junior science class is specifically targeted at students who belong to welfare centers and facilities. Through junior science classes, LG Chem tries to expand learning and development opportunities for those students interested in science but with limited access to science education as they are on welfare.

Junior science classes are held roughly 20 times a year, resulting in more than 100 classes to date since 2004. The program is increasingly being perceived as a professional social contribution activity as it draws on expertise and competence of our highly qualified researchers (with either master's degree or doctorate) at the Deajeon Research Park in all areas of the program from planning to operation.

**English Camp for Children from Low-Income Families\_** The 'English camp for children from low-income families' is a five-day program organized in the Incheon English Village for the 4th to 6th graders in the elementary schools who are recommended by community welfare centers across the country. In 2008, three rounds of English camps were held for some 800 students from low-income households.

A participant survey has shown that 86% of the students were very satisfied with the camp and 87% wished to come back to the camp again. The surveys also showed positive responses for the quality of education offered and satisfaction of the participants. The camps are seen as a project that has given hope and vision for children from poorer families.



▲ English Camp for Children from Low-Income Families



▲ The Classrooms of Hope

**Welfare**

**The Classrooms of Hope\_** In July 2008, we launched a corporate-level social volunteer group that integrates and systematizes our volunteering work spread out across the headquarters and local plants. One of the accomplishments achieved after the launch is the implementation of a program called 'The classrooms of hope.' 'The classrooms of hope' is intended to renovate youth and children facilities within the community welfare centers, given the fact that welfare arrangements for this socially marginalized group are relatively inferior to those set up for the elderly or the disabled. Volunteers from our Design Center drew wall paintings to inspire the youth with emotional development and the workers from the Industrial Materials group tapped into their skills and know-how in interior design to make the youth facilities a better learning environment. The volunteers as well as the beneficiaries of the program have expressed deep fulfillment with the volunteer service that utilized individual's job competency.

The second plate-hanging ceremony for 'The classrooms of hope' was held at Sangdo community welfare center in November, following the Youngdeungpo center in July 2008. We plan to pick two community welfare centers every year from applications to continue the spirit of this project.

**Library Project for Children in Remote Areas\_** We run a 'children's library project' as part of designated donations to encourage young people to read more books and to provide them with a cultural space to help nurture them into the leaders of tomorrow. The library project which began in 2007 runs on an annual budget of KRW 300 million and has resulted in the establishment of several libraries for children at elementary schools around the nation. Two libraries were set up in 2007 (Mipyong and Hwayang elementary schools in the Yeosu area), followed by three more in 2008 in different parts of Korea (Naju, Seosan Daejin and Iksan Seokam elementary schools) and all have gained enthusiastic responses and feedback from the students, parents as well as the local communities.

LG Chem has allied with Citizen Action for Reading Culture-famous for its Miracle Library projects-as our business partner to break the stereotypical image of a library with just long rows of tables and hard chairs and instead turn it into a multi-purpose cultural learning space. Adopting a user-friendly approach from design to construction, we have equipped the libraries with a variety of recreational facilities and audio-visual aids, and used environment-friendly finishing materials for the students.



▲ Library Project for Children in Remote Areas

▼ Children's Library Projects ▼

Name of elementary school	Geography	Number of students (plus affiliated pre-schoolers)	Surface area of the library (m <sup>2</sup> )
Yeosu Mipyong	Yeosu, Jeonnam Province	1,206 (+34)	193.8 (59 pyeong)
Yeosu Hwayang	Yeosu, Jeonnam Province	72 (+11)	92.5 (29 pyeong)
Seosan Daejean	Seosan, Choong-nam Province	427 (+46)	186.0 (57 pyeong)
Iri Seokam	Iksan, Jeonbuk Province	64 (+17)	90.3 (28 pyeong)
Naju	Naju, Jeonnam Province	1,579 (+0)	194.1 (59 pyeong)
Five schools in 4 regions		3,348 (+138)	756.7 (232 pyeong)

▼ Musical Holiday Performances ▼

Region	Venue	Date	Turnout (persons)
Suwon	Pilsung training center at the 10th air force combat wing	June 16	550
Changwon	Jeongbyeong-gwan, the 39th Infantry Division	June 18	550
Jinhae	Training center, Navy Training Command	June 20	1,200
Churlwon	Gangbyeong-gwan, The 3rd Infantry Division	July 2	500
Goseong	Gosung House of Culture, The 22nd Infantry Division	July 8	400
Daejeon	Main auditorium, Military Staff College	July 10	1,300
Yeonchon	Yeonchon soldier service center, the 5th Infantry Division	July 15	500
			5,000



▲ Musical Holiday



▲ Sharing Briquette of Love

'Fun Ticket Sharing' and 'Musical Holiday'\_ LG Chem is engaged in a variety of Mecenat programs to broaden access to arts and culture for the underprivileged people. An example of such programs is a 'fun ticket sharing' project which started in 2006. In 2008 alone, we offered cultural and artistic opportunities to 9,321 young students from low-income families to emotionally enrich their lives and help them build their dreams as artists.

We reach out to military servicemen with a limited access to cultural events as they often get overlooked in social contribution activities. We have been organizing 'Musical holiday' programs with the fusion musical troupe 'Taru' since 2007. Total 7,860 people in the army came to watch 10 musical performances organized in 2007. An original production called 'Man who sells time' was performed a total seven times in 2008 for servicemen in the army as well as the navy and the air force, resulting in 5,000 soldiers watching the shows.

Sharing Briquette of Love\_ To lend a helping hand to our neighbors who are feeling the impact of economic slowdown and rising prices, our Yeosu plant drew into a fund raised by the employees to buy 20,000 sheets of briquettes (worth KRW 12 million) and delivered them to 100 families on welfare that live in remote places on hilly areas. This volunteer activity called 'sharing briquette of love' was undertaken by 100 people from 13 volunteer groups at the Yeosu plant. LG Chem plans to continue with this initiative during winter time every year.

### Local Community Support

**LG Chem Volunteer Day\_** Designating September 26th as the 'Volunteer Day of LG Chem', volunteers from the Yeosu plant visited a fishing village in the local Yeosu area to render 'custom-tailored volunteer service'. Our volunteers visit the communities with poor social infrastructure such as islands or those with high concentration of low-income families to identify in advance what community support would actually be needed for the local residents before delivering customized service to the local communities simultaneously. During the Volunteer Day, 200 volunteers from 13 community support groups took part along with their families and 100 local volunteers from the Yeosu City were invited to share their specific expertise in cosmetics and beauty. Different community groups leveraged their diverse skills in home repairs, electrical work, flooring and wallpaper replacements, photo-taking for the elders for portrait scrolls, beach clean-up and consolatory performances.



▲ LG Chem Volunteer Day

**Sister Alliance for Villages and Streams\_** Our Cheongju plant supports the Hwagye Village based on a sister alliance- the plant assists the village during the annual rice-planting season, builds community shelters and organizes village picnics. The Ulsan plant designated the local stream called the Hyeoya River as part of this sister alliance program to carry on with water quality tests and stream clean-up activities.



▲ Sister Alliance with Villages

**Emergency Relief Work\_** In response to a massive oil spill in the western area from oil tanker submergence at the end of 2007, a large group of volunteers from the Daesan plant were dispatched immediately after the spill to carry out a comprehensive disaster control and at the same time to provide warm meals for volunteers from other regions. Such prompt emergency relief work earned the volunteer groups a plaque of appreciation from the affected community. We at LG Chem make sure to mobilize our regional social volunteer groups as swiftly as possible to ensure an effective response and relief for emergency.

**'Love Campaign for Local Farmers' through Local Produce Purchase\_** We offer a wider range of assistance to farming communities every year. The Ulsan plant buys local produce every year through 'Love Campaign for Local Farmers' to help rural communities revitalize their economy. Following potato purchase in 2007, volunteer purchase drive was conducted in May 2008 to buy pears from the growers in the Ulsan and Ulju area as they were overstocked with this local specialty.

**Other Local Community Contributions\_** We provide a range of community services based on sister alliances. For example, 'vitamin volunteer project', 'battery sharing project' 'optical love sharing project', initiated by the Ochang Techno Park, are rendered under a sister alliance formed with social welfare facilities in each region. The volunteers contribute their time for Kimchi-making, sponsor goods and perform renovation work. The Naju plant has sister ties with the needy neighbors in the community to give them basic commodities and living expenses. In addition, the Iksan plant grants scholarship to high-performing students from low-income brackets and deploys mountain-climbing volunteer programs for the physically challenged. Our plants across Korea are actively engaged with the local communities to grow and prosper together.



▲ Kimchi-Making Service

set sail in 1996, first with Beijing University and Tsinghua University in China and were expanded in 2008 to Tianjin, Nankai, Sun Yat-Sen University and South China University of Technology where our five overseas subsidiaries are located. Approximately 150 students are awarded with scholarship of 500,000 RMB (or KRW 100 million) each year. Starting 2008, our subsidiary in Taiwan LGCE TP has given out KRW 25 million in scholarship assistance to 20 low-income, honor students from high schools as part of 'LG Love' drive. We plan to further broaden the scope of recipients in the future.

**Local Communities** \_ LG Yongxing - our ABS manufacturing subsidiary in Ningbo, China - is solidifying its presence as a global yet local business that grows together with the local community through 'I Love Ningbo' campaign since 2003. LG Yongxing employees visited senior homes during special Chinese holidays such as the Lunar New year and Thanksgiving and delivered goods and money to the senior citizens. The employees donated computers and other educational equipment to nearby schools as well. LG Yonxing is also an advocate of volunteer service led by the charity council of the Zhenhai district. Our employees support a variety of social, cultural and sports events such as installing and operating the D-Day tower for the Beijing Olympics to become valuable members in the local community.

Our Guangzhou manufacturing subsidiary LGCE GZ in China built a library for a local primary school in 2007 and has been donating books and school supplies every year. Moreover, the employees take the initiative in reaching out to orphanages and senior homes every year and provide them with basic commodities.

**Environmental Campaign/Emergency Relief**\_ LG Dagu Chemical - our manufacturing subsidiary in Tianjin has been planting trees for a forestry park in Tanggu since 2006. LGCE BJ, located in Beijing, plants trees every spring and continues with a city clean-up campaign.

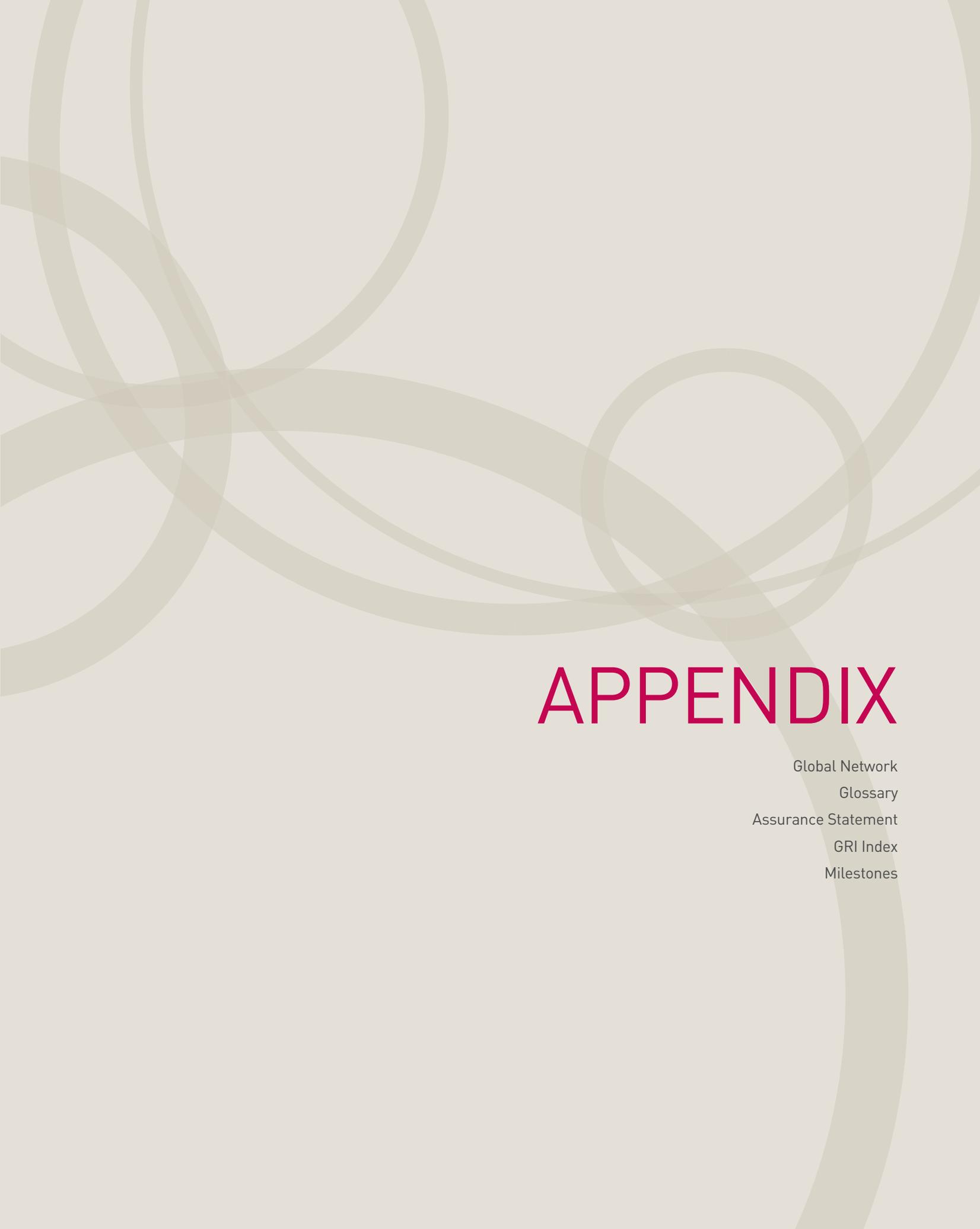
In the aftermath of the earthquakes in Sichuan in May of 2008, the LG Chem subsidiaries in China gave relief money at the corporate level as well as raised relief fund at the individual level through the community partnership body and contributed their time for volunteer service.

▼ Main Social Contribution Activities by Overseas Subsidiary ▼

Subsidiary	Main social contribution activities
LG DAGU	<ul style="list-style-type: none"> <li>• Scholarship (Tianjin, Nankai University)</li> <li>• Urban landscaping support (Street lights, safety devices)</li> <li>• Environmental preservation (Tree planting event at a forestry park in Tanggu)</li> <li>• PR activities for fire-protection safety</li> </ul>
LG YX	<ul style="list-style-type: none"> <li>• I Love Ningbo - consolatory visits to nursing homes &amp; library construction</li> <li>• Public facility construction (Goryeo History Pavilion)</li> <li>• Sports and culture events (sports competition among foreign-invested companies)</li> <li>• Charity (Charity Council of the Zhenhai District)</li> </ul>
LGCC GZ	<ul style="list-style-type: none"> <li>• Scholarship (Sun Yat-Sen, South China University of Technology)</li> <li>• Library construction and book donation</li> <li>• Consolatory visits to orphanages/senior homes</li> <li>• Fund raising for co-workers in need</li> </ul>
LGCI TJ	<ul style="list-style-type: none"> <li>• Scholarship (Tianjin University)</li> <li>• Assistance for orphanages/nursing homes</li> <li>• Fund raising for community partnership drive</li> </ul>
LGCE BJ	<ul style="list-style-type: none"> <li>• Donation for community partnership drive (Donating used clothes)</li> <li>• Tree planting and urban landscaping support</li> </ul>
LGCE TP	<ul style="list-style-type: none"> <li>• 'LG Love' Scholarship</li> </ul>



▲ Book donation and library construction for unsubsidized primary school



# APPENDIX

Global Network

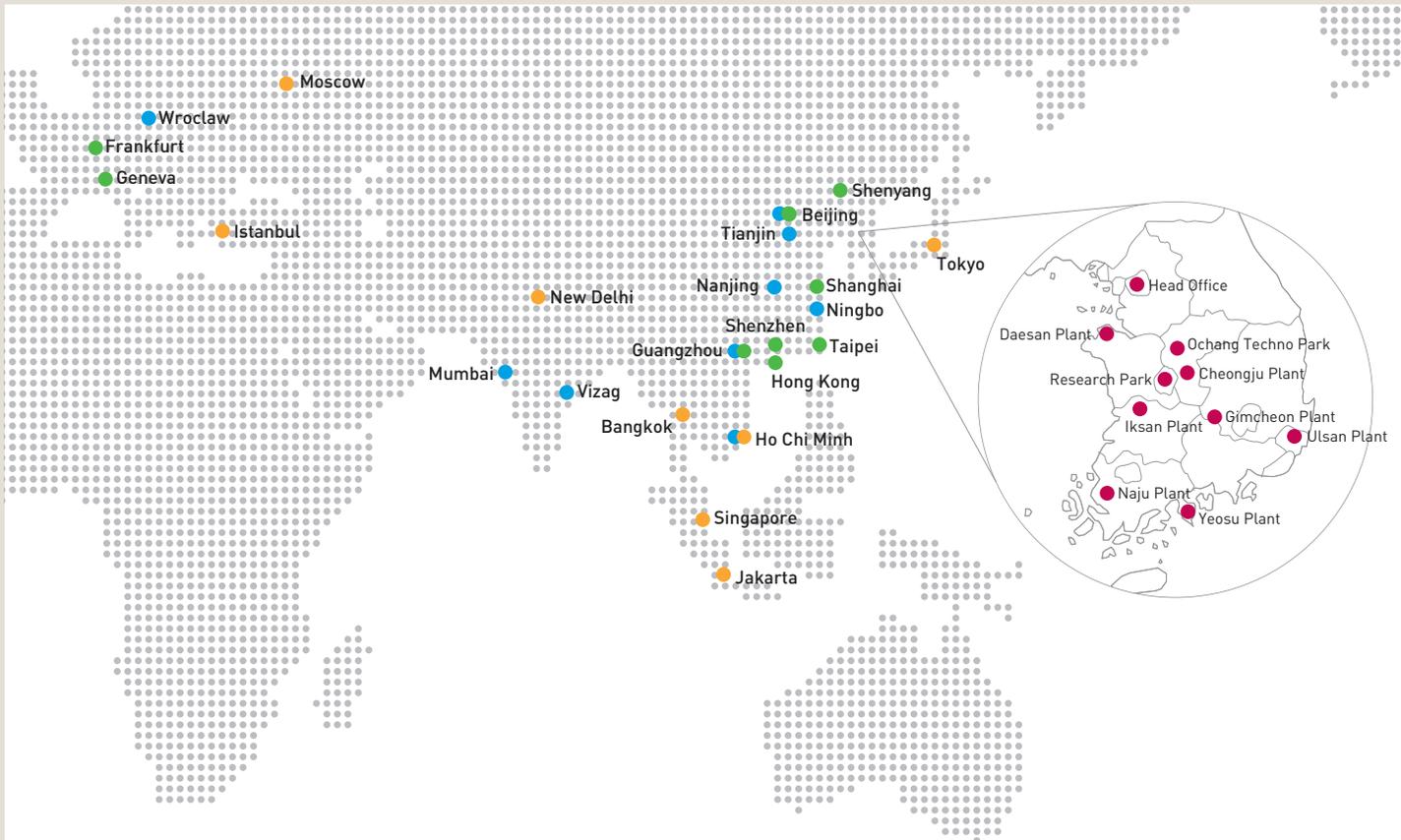
Glossary

Assurance Statement

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Milestones

# Global Network



**Manufacturing Subsidiaries**

Name	Location
Tianjin LG DAGU Chemical Co., Ltd.	Tianjin
Tianjin LG Bohai Chemical Co., Ltd.	Tianjin
Ningbo LG Yongxing Chemical Co., Ltd.	Ningbo
LG Chemical (Guangzhou)	Guangzhou
Engineering Plastics Co., Ltd.	
LG Chem (Tianjin) Engineering Plastics Co., Ltd	Tianjin
LG Chem (Nanjing) Information & Electronics Materials Co., Ltd.	Nanjing
LG Chem Display Materials (Beijing) Co., Ltd.	Beijing
LG Chem (Taiwan), Ltd.	Taipei
LG Chem Poland Sp. zo.o	Wroclaw
LG Polymers India Privat Ltd.	Mumbai
LG VINA Chemical J/V Company	Ho Chi Minh

**Marketing Subsidiaries**

Name	Location
	Beijing
	Shanghai
LG Chem China Investment Co., Ltd.	Guangzhou
	Nanjing
	Shenzhen
LG Chem Hong Kong Ltd.	Hong Kong
LG Chemical India Private Ltd.	New Delhi
	New York
	Los Angeles
LG Chem America, Inc.	San Jose
	Austin
	Houston
LG Chem Brasil, Ltd.	Sao Paulo
	Frankfurt
LG Chem Europe GmbH	Geneva

**Representative Offices**

Name	Location
LG Chem, Ltd. Moscow Office	Moscow
LG Chem, Ltd. Istanbul Office	Istanbul
LG Chem, Hochiminh Office	Ho Chi Minh
LG Chem, Ltd. Bangkok Office	Bangkok
LG Chem, Tokyo Office	Tokyo
LG Chem, Jakarta Office	Jakarta
LG Chem, Singapore Office	Singapore

**R&D Centers**

Name	Location
Compact Power Inc.	Troy

- Manufacturing Subsidiaries
- Marketing Subsidiaries
- R&D Centers
- Representative Offices
- Domestic Plants



● Domestic Plants

Research Park

Area\_ 85,530 m<sup>2</sup>

Major Business\_ New Materials Research



Gimcheon Plant

Area\_ 24,800 m<sup>2</sup>

Major Business\_ SAP

(Super Adsorbent Polymer)



● Domestic Plants

Naju Plant

Area\_ 562,793 m<sup>2</sup>

Major Businesses\_ Octanol, Butanol, Plasticizers, Acrylic Acid



Daesan Plant

Area\_ 1,297,477 m<sup>2</sup>

Major Businesses\_ VCM, PVC, Ethylene, Propylene, Benzene, BD, PE, PP, Synthetic Rubbers



Ochang Techno Park

Area\_ 248,209 m<sup>2</sup>

Major Businesses\_ Rechargeable Batteries, Optical Materials



Ulsan Plant

Area\_ 12,161 m<sup>2</sup>

Major Businesses\_ Housing Materials, Living Materials, Automotive, Materials, Plasticizers



Yeosu Plant

Area\_ 991,735 m<sup>2</sup>

Major Businesses\_ VCM, PA, SM, Acrylates, PVC, ABS, EDC, PS, SAN, LDPE, Octanol, MBS, SBS, SBL



Iksan Plant

Area\_ 94,636 m<sup>2</sup>

Major Businesses\_ ABS Compounds, Engineering Plastics



Cheongju Plant

Area\_ 226,490 m<sup>2</sup>

Major Businesses\_ Building Materials, Living Materials, IT and Electronic Materials, Rechargeable Batteries



# Glossary

**6 Sigma** | A management strategy implemented companywide in order to evaluate all quality levels quantitatively. It aims to create a culture of efficiency and quality by training employees for problem solving and professionalism to achieve quality innovation and customer satisfaction.

**CDM (Clean Development Mechanism)** | The CDM provides for industrialized countries to implement projects and investments that reduce greenhouse gas emissions in developing countries, in return for certified emission reductions (CERs). The industrialized countries can use the CERs to help meet the international regulations in greenhouse gas emission.

**Chemical Safety Report (CSR)** | A report required for all substances registered in quantities of 10 tons or more per year, to verify that risks are adequately controlled in regards to the application and the life-cycle of the substances.

**Direct Emission** | Emission of greenhouse gases resulting from the combustion of fossil fuels such as oil and coal. Includes emission from stationary combustion sources, transportation medium, manufacturing processes involving physical or chemical reactions, and fugitive emission from hydrants, coolants, etc.

**Eco-Label** | Eco-label is a symbol on a product or its package informing customers how the product was made in an environmentally sensitive manner. The eco-label aims to promote products with a reduced environmental impact from production, distribution and use, to disposal.

**Emission Trading** | A scheme allowing nations to trade emission allowances based on emission allowances granted to countries obliged to reduce greenhouse gases.

**Environmentally Friendly Company** | The Ministry of Environment of Korea designates organizations that contribute to environmental sustainability by reducing pollutants and the use of materials and energy as well as improving environmentally friendliness in their product, facilities, and services.

**ERP (Enterprise Resource Planning)** | An integrated information system for managing all human and physical resources used by an enterprise in carrying out its business activities with the ultimate purpose of boosting the firm's competitive edge.

**EuP (Energy using Product) Directive** | Effective since August 2005, the directive makes it mandatory to incorporate environmental aspects into the design (eco-design requirements) of energy-using products distributed in the EU market.

**GHG (Greenhouse Gas)** | Greenhouse gases are gaseous components in the atmosphere that contribute to the greenhouse effect. According to Kyoto Protocol, carbon dioxide, nitrogen dioxide, methane, SF<sub>6</sub>, HFCs and PFCs are defined as greenhouse gases.

**GHS (Globally Harmonized System on Classification and Labeling for Chemicals)** | A globally harmonized system for classification, labeling, and safety data sheets for chemicals according to their hazards.

**GRI (Global Reporting Initiative)** | An international organization for developing and spreading globally applicable sustainability reporting guidelines. Various stakeholders covering business, research institute, nongovernmental organizations, and financial institutions participate. It was established in 1997 by Coalition for Environmentally Responsible Economies (CERES), and later became independent in 2002. GRI is an official collaborating center of United Nations Environment Program and has a partnership with Global Compact.

**Healthy Building (HB) Material Mark** | The HB Material Mark employed in the architectural community is certified in 5 grades according to the emission level of VOCs and formaldehyde in building materials (veneer boards, flooring materials, wallpapers, wood, panels, paints, adhesives, etc.) produced at home and abroad.

**Indirect Emission** | Emission of greenhouse gases from electricity or steam purchased from an outside company.

**IPCC (Intergovernmental Panel on Climate Change)** | A body established by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) to address climate change. IPCC is open to all members of the UN and WMO.

**ISO 14001** | Internationally recognized standards for environmental management system which certifies an organization for its environmental management.

**KOSHA 18001** | A health and safety management certification system developed by the Korea Occupational safety & Health Agency (KOSHA) benchmarking BS8800 and OHSAS 18001.

**KRI (Key Risk Indicator)** | An indicator showing the potential of risk occurrence and exposure.

**Kyoto Protocol** | A protocol adopted at the Third Conference of Parties of the UN Framework Convention on Climate Change held in Kyoto in 1997. The Protocol went into force on February 16, 2005. It sets the targets for reduction of greenhouse gas emissions from industrialized countries, and stipulate that the volume of collective emission by industrialized nations shall be reduced by 5.2% of that of 1990 between 2008 and 2012.

**LCA (Life Cycle Assessment)** | An objective process to evaluate the environmental burdens associated with a product, process, or an activity by identifying energy and materials used and wastes released to the environment, and to evaluate and implement opportunities to affect environmental improvements.

**Leak Detection and Repair (LDAR) System** | Fugitive emission source that enables pollutants to bypass source and be emitted into the atmosphere.

**LOHAS (Lifestyles of Health and Sustainability)** | A market segment focused on health, the environment, social justice, personal development and sustainable living.

**Matching Grant** | A system whereby the company provides a contribution equivalent to the amount donated by an employee to help the underprivileged.

**Material Safety Data Sheet (MSDS)** | A document that contains information on how to work safely with chemical materials, including descriptions on the name of the chemical material, their physical chemical properties, hazards, risks, emergency procedures in the case of explosion or fire, and their environmental impact

**NCC (Naphtha Cracking Center)** | A facility that produces feedstock for petroleum products such as ethylene (feedstock for polyethylene), propylene (for polypropylene) and butylene (for synthetic rubber) through thermal cracking (naphtha is combined with steam at a temperature of about 800°C).

**OHSAS18001** | Auditing standards and guidelines for occupational health and safety management system.

**PL (Product Liability)** | When consumers or a third party suffer physical and material damage due to product defects, the manufacturer or the seller become liable and compensate for the damages.

**RC (Responsible Care)** | The chemical industry's global voluntary initiative under which companies, through their national associations, work to continuously improve their health, safety and environmental performance. The corporate and government sectors participate in implementing RC activities.

**REACH (Registration, Evaluation, Authorization and restriction of Chemicals)** | The new EU regulations on chemicals management stipulating that the roughly 30,000 chemical substances manufactured in or imported to the EU be registered with the European Chemicals Agency.

**RoHS (Restriction of Hazardous Substances)** | A directive banning the use of six hazardous materials of Lead, Mercury, Cadmium, Chromium VI, PBB and PBDE in products to be sold in the EU market effective from July 2006.

**RTO (Regenerative Thermal Oxidizer)** | The RTO oxidizes VOCs and exhaust gases in high heat (800°C). It incorporates specialized ceramic media in a wide regenerator (heat transfer bed) to allow thermal rate efficiencies in excess of up to 97%, making it a high energy-saving and cost effective solution for air pollution control.

**Safety Data Sheet (SDS)** | Additions to MSDS, including application category and exposure category of materials and exposure scenario.

**Substance Information Exchange Forum (SIEF)** | A mandatory forum created during pre-registration to assist the sharing of data and cost with other registrants of the same substance.

**Technical Dossier (TD)** | A mandatory document required for all substances subject to registration (for use over one ton threshold per year). The technical dossier contains information on study summary in accordance to the volume of manufacture and import (up to 62 items) and other generic information such as the name of the registrant and the substance.

**TMS (Tele-Monitoring System)** | An automatic measuring device set up to measure exhaust gases at the point of emission. The data is used to check whether businesses are complying with emission standards under the Clean Air Conservation Act, impose fines for excess emission, and draw up air pollution policy.

**TOE (Ton of Oil Equivalent)** | TOE is defined as 10<sup>7</sup> kcal calorific value generated from 1 ton of crude oil.

**TRI (Toxics Release Inventory)** | The TRI contains information concerning wastes management activities and the release of over 600 toxic chemicals by facilities, production, distribution, or other use of such materials. The relevant government office integrates the TRI data of business enterprises and releases the information to the public.

**TPM (Total Productive Maintenance)** | Management innovation activities for enhancing productivity.

**UNFCCC (United Nations Framework Convention on Climate Change)** | A convention adopted in New York on May 9, 1992, and ratified by more than 150 sovereign states and the European Union at the Earth Summit held in Rio de Janeiro in 1992. The purpose of the convention is to stabilize the concentration of the greenhouse gases in the atmosphere to the level preventing dangerous human interference with the climate system.

**VA (Voluntary Agreement)** | An agreement aimed at achieving the target energy saving level and reduction of greenhouse gases, executed by corporations that produce, supply and consume energy and the government, based on mutual trust. Under the scheme, a company sets and tries to attain realistic targets, and the government provides tax support and other incentives to reach the target. It is a nonregulatory system that provides active support for the corporate efforts to achieve the targets.

**VOC (Volatile Organic Compounds)** | Substances like paints, adhesives and petrochemical products. VOCs form photochemical ozone, causing harm to human bodies with cancer risks and potentially damaging genes.

**WRI (World Resource Institute)** | An environmental think tank of scientists, economists and policy researchers based in Washington D.C. It conducts research to find ways to satisfy the public demands while achieving economic growth and to preserve natural resources and the environment.

# Assurance Statement

To readers of the LG Chem's 2008 Sustainability Report

## Preface

The Korea Management Association Registration and Assessments (hereinafter referred to as "KMAR") has been engaged by LG Chem to assure its 2008 Sustainability Report (hereinafter referred to as "the Report"). It is the responsibility of the management of LG Chem to prepare the Report, and the responsibility of KMAR to issue an assurance statement on specific information contained in the assurance scope as specified below.

## Our Independence

With the exception of providing third party assurance services, we are not involved in any for-profit business operations of LG Chem and maintain independence from the Company.

## Assurance Scope

LG Chem describes in the Report its efforts and achievements in relation to its sustainability management activities. Our assurance engagement was designed to provide the readers with the following:

- Assurance on the economic segment : Review whether financial performance data has been appropriately extracted from LG Chem's operating report and audit report on its 2008 unconsolidated financial statements as defined in the Report's performances and conclusion sections;
- Assurance on the social/environmental segments : Review whether information contained in the sections of the Report as specified below is appropriately described, which include
  - Sustainability communication
  - Sustainability management system
  - Customer value, product safety and eco-products
  - Environment
  - Society

Here, 'appropriately described' means that the contents in the Report appropriately reflect actual data and raw information and are presented in a consistent and reliable manner. Reasonable assurance achieved for the economic sector refers to a higher level of assurance than limited assurance in terms of characteristics and the extent of the engagement tasks performed.

## Assurance Standards

KMAR performed assurance engagement in accordance with the KMAR assurance standards developed on the basis of the 'AA 1000 Assurance Standard' from AccountAbility. We also referred to 'International Standard on Assurance Engagements (ISAE 3000): Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurance Standards Board as an additional guideline.

### Assurance Process and Conclusions

KMAR assessed the validity of the information in the Report as contained in the agreed scope of assurance and verified the internal process of LG Chem for presenting reported data and preparing the Report through the following means:

- Media research on LG Chem's sustainability practices during the reporting period
- Review of the systems and processes used in producing data
- Assessment of internal documents and materials
- Interview with personnel in charge of activities and performances as disclosed

Based on the results we have obtained from document reviews, site visits and personnel interviews, we have held several rounds of discussions with LG Chem for revising the Report and reviewed the final version of the Report to check whether our recommendations for revision and improvement have been duly reflected as a result.

- Economic performance

We compared the Report against LG Chem's 2008 financial statements and found that the financial data presented in the Report has been appropriately derived from the 2008 unconsolidated financial statements of LG Chem.

- Environmental and social performance

Nothing has come to our attention that causes us to believe that information in the environmental and social sections as covered under the abovementioned assurance scope is inappropriately described, and no material errors were found.

### Recommendation for Improvement

We have confirmed that LG Chem has made concerted efforts and leveraged various methods to incorporate the needs of the stakeholders in its 2008 Sustainability Report, and thus expect this Report to be actively utilized as a communication tool with the stakeholders. We recommend the following for continual improvement:

- Continuous enhancement of comparability in social and environmental performance data
- Continuous expansion of the scope of reporting (to comprehensively cover overseas sites)



*K. H. Park*

CEO Ki-Ho Park

# GRI Index

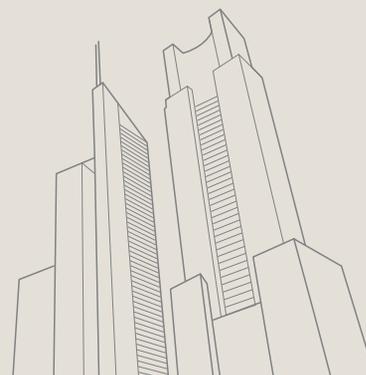
GRI INDEX		Indicators	Page	Extent of reporting	Reason
Vision and Strategy	1.1	Statement from the most senior decision-maker of the organization (e.g., CEO, chair, equivalent senior position) about the relevance of sustainability to the organization and its strategy	2-3	●	
	1.2	Description of key impacts, risks, and opportunities	2-3	●	
Organizational Profile	2.1	Name of the organization	1	●	
	2.2	Primary brands, products, and/or services	1	●	
	2.3	Operational structure of the organization, including main divisions, operating companies subsidiaries, and joint ventures	1, 84-85	●	
	2.4	Location of organization's headquarters	1, 84-85	●	
	2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	36, 84-85	●	
	2.6	Nature of ownership and legal form	20	●	
	2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries)	1, 35-37	●	
	2.8	Scale of the reporting organization	1, 35-37	●	
	2.9	Significant changes during the reporting period regarding size, structure, or ownership	11, 14	●	
	2.10	Awards received in the reporting period	11, 14-15	●	
Report Parameters	3.1	Reporting period (e.g., fiscal/calendar year) for information provided	11	●	
	3.2	Date of most recent previous report (if any)	11	●	
	3.3	Reporting cycle (annual, biennial, etc.)	-	○	N/A
	3.4	Contact point for questions regarding the report or its contents	95	●	
	3.5	Process for defining report content	11-13	●	
	3.6	Boundary of the report	11	●	
	3.7	State any specific limitations on the scope or boundary of the report	11	●	
	3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations	11	●	
	3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations	Details per indicator	●	
	3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	1, 35-37	●	
	3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	1, 35-37	●	
	3.12	Table identifying the location of the Standard Disclosures in the report	90-91	●	
	3.13	Policy and current practice with regard to seeking external assurance for the report	11, 88-89	●	
Governance, Commitments, and Engagement	4.1	Governance structure of the organization	20-21	●	
	4.2	Indicate whether the Chair of the highest governance body is also an executive officer	21	●	
	4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members	20	●	
	4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	-	○	N/A
	4.5	Linkage between compensation for members of the highest governance body, senior managers, executives, and the organization's performance	-	○	N/A
	4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided	20	●	
	4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics	20	●	
	4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	18-19, 48, 74	●	
	4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance	20	●	
	4.10	Processes for evaluating the highest governance environmental, and social performance	20	●	
	4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization	26-29	●	
	4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses	57	●	
	4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations	1	●	
	4.14	List of stakeholder groups engaged by the organization	12-13	●	
	4.15	Basis for identification and selection of stakeholders with whom to engage	12-13	●	
	4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	12-13	●	
	4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	12-13	●	
Economy	EC1	Direct economic value generated and distributed	35-37	●	
	EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	56-57	●	
	EC3	Coverage of the organization's defined benefit plan obligation	-	○	N/A
	EC4	Significant financial assistance received from government	-	○	N/A



● Full, ◐ Partial, ○ None, N/A Not Available, N/Ap Not Applicable, N/Al Not Allowed, N/M Not Material

GRI INDEX	Indicators	Page	Extent of reporting	Reason
	EC6 Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation	–	○	N/A
	EC7 Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	66	●	
	EC8 Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement	79	●	
Environment	EN1 Materials used by weight or volume	52	●	
	EN2 Percentage of materials used that are recycled input materials	–	○	N/A
	EN3 Direct energy consumption by primary energy source	57	◐	
	EN4 Indirect energy consumption by primary source	57	◐	
	EN8 Total water withdrawal by source	52	◐	
	EN11 Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	–	○	N/M
	EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	–	○	N/M
	EN16 Total direct and indirect greenhouse gas emissions by weight	58	◐	
	EN17 Other relevant indirect greenhouse gas emissions by weight	58	◐	
	EN20 NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions by type and weight	54	●	
	EN21 Total water discharge by quality and destination	53	●	
	EN22 Total weight of waste by type and disposal method	52	●	
	EN23 Total number and volume of significant spills	–	○	No Relevance
	EN26 Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	42–45	●	
	EN27 Percentage of products sold and their packaging materials that are reclaimed by category	–	○	N/A
	EN28 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	–	○	No Relevance
Labor Practices & Decent Work	LA1 Total workforce by employment type, employment contract, and region	65	●	
	LA2 Total number and rate of employee turnover by age group, gender, and region	65	●	
	LA4 Percentage of employees covered by collective bargaining agreements	–	○	N/Al
	LA5 Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements	68	◐	
	LA7 Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region	71	●	
	LA8 Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	70–71	●	
	LA10 Average hours of training per year per employee by employee category	–	○	N/A
	LA13 Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	65	●	
	LA14 Ratio of basic salary of men to women by employee category	37	●	
Human Rights	HR1 Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	–	○	N/A
	HR2 Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	–	○	N/A
	HR4 Total number of incidents of discrimination and actions taken	–	○	N/A
	HR5 Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	68	●	
	HR6 Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor	69	●	
	HR7 Operations identified as having significant risk for incidents of forced or compulsory labor	69	●	
Society	S01 Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	–	○	N/A
	S02 Percentage and total number of business units analyzed for risks related to corruption	–	○	N/A
	S03 Percentage of employees trained in organization's anti-corruption policies and procedures	22–23	●	
	S04 Actions taken in response to incidents of corruption	23	●	
	S05 Public policy positions and participation in public policy development and lobbying	–	○	N/A
	S08 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	–	○	No Relevance
Product Responsibility	PR1 Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	40–41	●	
	PR3 Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	42–45	●	
	PR6 Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	39	●	
	PR9 Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	–	○	N/Al

# Milestones



JAN 1947	Established as Lucky Chemical Industrial Corporation	APR 2001	Demerged into three separate companies: LG Chem, LG Chem Investment, and LG Household & Health Care
NOV 1951	Produced Korea first injection-molded products	OCT 2001	Completed 90,000 mtpa expansion of Tianjin PVC plant
JUN 1954	Commissioned first mass-production injection-molding plant	FEB 2002	Completed Cheongju polarizer plant expansion
AUG 1962	Established floorcovering maker Lucky Vinyl Ltd.	APR 2002	Completed expansion of Cheongju battery plant, doubling capacity
JAN 1966	Renamed as Lucky Chemical Industries Co., Ltd.	AUG 2002	Commissioned Guangzhou EP compound plant
OCT 1969	Listed on Korea Stock Exchange	AUG 2002	Established LG Chem China Trading Co., Ltd. in Shanghai
FEB 1974	Renamed as Lucky Ltd.	DEC 2002	Completed 150,000 mtpa expansion of Ningbo ABS plant
NOV 1976	Commissioned Yecheon PVC paste resin plant	MAR 2003	Commissioned Tianjin window profile and door plant
AUG 1978	Commissioned Ulsan FRP plant	JUN 2003	Acquired 50% equity stake in Hyundai Petrochemicals
DEC 1979	Opened Lucky Central R&D Center in Daejeon	JUL 2003	Completed 100,000 mtpa expansion of Tianjin PVC plant
SEP 1982	Completed expansion of Yecheon PVC paste resin plant	AUG 2003	Established Nanjing battery and polarizer back-end processing plants
MAR 1984	Acquired Korea General Chemicals' Naju octanol plant	NOV 2003	Established LG Chem Industrial Materials, Inc. in the USA
JAN 1985	Commissioned Yecheon PS plant	JAN 2004	Completed expansion of Ochang polarizer
MAY 1987	Commissioned Naju acrylate plant	MAR 2004	Completed Ochang Techno Park production complex for Information & Electronic Materials Group
MAY 1990	Commissioned Yeosu VCM plant	JUN 2004	Established Ningbo SBL joint venture
JUN 1990	Commissioned Yeosu acrylate plant	JUL 2004	Established marketing subsidiary LG Chem (Taiwan), Ltd. in Taiwan
OCT 1992	Commissioned Yecheon PA plant	NOV 2004	Commissioned Guangzhou ABS plant
APR 1993	Developed industry's first HCFC-resistant synthetic resin	DEC 2004	Established LG Chem (China) Investment Co., Ltd. in Beijing
OCT 1993	Commissioned Yeosu IPA plant	JAN 2005	Completed business split of Hyundai Petrochemicals and established LG Daesan Petrochemicals
OCT 1994	Completed Lucky Research Park in Daejeon	JUN 2005	Established joint R&D lab with Moscow State University
FEB 1995	Renamed as LG Chem. Ltd.	JUL 2005	Established sales subsidiary LG Chem Europe GmbH in Frankfurt
NOV 1996	Acquired Hindustan Polymers Ltd. in India (LG Polymers India)	OCT 2005	Commissioned HI-MACS®solid acrylic surface plant in the USA
JAN 1997	Commissioned Yeosu OXO plant	NOV 2005	Established LG Chem Poland Sp. z o.o. polarizer back-end subsidiary in Poland
APR 1997	Completed expansion of Yeosu acrylate, EDC/CA, and VCM plants	NOV 2005	Completed expansion of Ochang polarizer (26,000,000 m <sup>2</sup> )
DEC 1997	Named one of the Asia's Best Companies by Euromoney	JAN 2006	Merged LG Daesan Petrochemicals
MAY 1998	Commissioned Tianjin PVC and PVC flooring plants	DEC 2006	Completed expansion of Ochang polarizer (49,000,000 m <sup>2</sup> )
JUL 1998	Commissioned Ningbo ABS plant	APR 2007	Completed expansion of Daesan NCC, raising capacity to 260,000 mtpa of ethylene and 130,000 mtpa of propylene
JUL 1998	Commissioned Yeosu NPG plant	NOV 2007	Merged LG Petrochemical
FEB 1999	Issued 2 million global depository receipts	SEP 2008	Acquisition of superabsorbent polymer (SAP) business from Kolon
SEP 1999	Commissioned Cheongju lithium-ion battery and copper-clad laminate plants	DEC 2008	Establishment of LG Chem industrial Materials Russia, LLC
OCT 1999	Commercialized color filter photoresists for LCD panels		
OCT 2000	Completed 90,000 mtpa expansion of Ningbo ABS plant		
NOV 2000	Acquired Hyundai Petrochemical's PVC business		
MAR 2001	Co-founded battery developer Compact Power, Inc. in the USA		

# Reader Feedback Questionnaire

We welcome your opinions. Please fill out this feedback questionnaire and send it to us by mail or fax. Your opinions will be reflected to improve our future sustainability reports.

## Recipient

Tel | 82-2-3773-7166

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Environment & Safety Team, LG Chem

## Sender

• Name \_

• Occupation \_

### 1. Which of the following applies to you?

- LG Chem Employee    Shareholder/Financial Institute  
 Customer    Business Partner    Citizens' Group  
 Local Community    Research/Academia    Government  
 Media    Other:

### 2. For what purpose do you use this Report?

### 3. In which area(s) are you interested in this Report? (Mark one or more)

- Sustainability Communication  
· 2008 Sustainability Report   · Materiality Test  
· Stakeholder Communication   · 2008 Highlights
- Sustainability Management System  
· Sustainability Management Vision   · Corporate Governance  
· 'Jeong-Do' Management   · Corporate Culture  
· Risk Management
- Economy  
· Management Vision & Strategy   · Innovation Activities  
· Economic Performance
- Environment  
· Environmental Management and Performance  
· Responding to Energy and Climate Change  
· Responding to REACH
- Society  
· Talent Management and Labor Management Collaboration  
· Safety & Health   · Business Partners  
· Business Partners   · Social Contribution

### 4. How would you rate the overall quality of this report in the following aspects?

Overall completeness	(Very poor)	1	2	3	4	5	(Very good)
Reliability	(Very poor)	1	2	3	4	5	(Very good)
Structure	(Very poor)	1	2	3	4	5	(Very good)
Substantiality of contents	(Very poor)	1	2	3	4	5	(Very good)
Design	(Very poor)	1	2	3	4	5	(Very good)
Readability	(Very poor)	1	2	3	4	5	(Very good)

### 5. How credible and useful was the Report's information in the following areas?

Sustainability Communication	(Very poor)	1	2	3	4	5	(Very good)
Sustainability Management System	(Very poor)	1	2	3	4	5	(Very good)
Economy	(Very poor)	1	2	3	4	5	(Very good)
Environment	(Very poor)	1	2	3	4	5	(Very good)
Society	(Very poor)	1	2	3	4	5	(Very good)

### 6. If there is anything that needs to be addressed or further explained in the Report, please tell us.

### 7. How would you rate our activities in the following areas?

Sustainability Communication	(Very poor)	1	2	3	4	5	(Very good)
Sustainability Management System	(Very poor)	1	2	3	4	5	(Very good)
Economy	(Very poor)	1	2	3	4	5	(Very good)
Environment	(Very poor)	1	2	3	4	5	(Very good)
Society	(Very poor)	1	2	3	4	5	(Very good)

### 8. Do you have any additional opinions on LG Chem's activities or Sustainability Report? If so, please specify.

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