

# Solution Partner – LG Chem

2009 Sustainability Report



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# COMPANY PROFILE

LG Chem aims to be a global leader, growing with customers by providing innovative materials and solutions.

## Overview

|                     |  |
|---------------------|--|
| Company name        | LG Chem, Ltd   |
| Address             | LG Twin Towers, 20 Yeouido-dong, Yeongdeungpo-gu, Seoul, Korea |
| Date established    | January 1947   |
| Number of employees | 13,989 (8,337 in Korea, 5,652 overseas)                        |

## Financial Snapshot

(KRW billion)

|                            |          |
|----------------------------|----------|
| Total assets               | 8,358.8  |
| Total liabilities          | 2,874.5  |
| Total shareholders' equity | 5,484.3  |
| Sales                      | 13,694.5 |
| Operating income           | 1,944.8  |
| Net income                 | 1,507.1  |

## Sales Performance

(KRW billion)

|                 | 2006    | 2007    | 2008     | 2009     |
|-----------------|---------|---------|----------|----------|
| Petro-chemicals | 5,611.5 | 6,750.0 | 9,933.9  | 9,476.7  |
| IT&E Materials  | 1,597.0 | 2,133.3 | 2,695.7  | 4,181.3  |
| Others          | 16.4    | 16.3    | 15.4     | 36.5     |
| Total           | 7,224.9 | 8,899.6 | 12,645.0 | 13,694.5 |

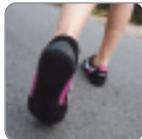
## MAIN PRODUCTS BY BUSINESS AREAS

### Petrochemicals



#### NCC/PO

Basic distillates (ethylene, propylene, etc.), polyolefin, BPA, ABS, PVC, octanol, AA, synthetic rubber, SM, EG and other petrochemical products



#### Rubbers/Specialty Polymers

Synthetic rubbers (SBR, BR), SBS as an asphalt modifier



#### PVC

Plastics widely used as materials for pipes, flexible and rigid sheets, chassis, floor-coverings



#### ABS/EP

Plastic materials used for electrical and electronic, automotive, industrial, residential application



#### Acrylates/Plasticizers

Acrylate and plasticizers used as feedstock to make super-absorbent polymers, paints and adhesives

### IT&E Materials



#### Batteries

Lithium-ion batteries, lithium-ion polymer rechargeable batteries



#### Medium-and Large-sized Batteries

High-output and high-capacity batteries for robots, electric and hybrid vehicles



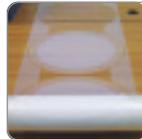
#### Optical Materials

Polarizers, PDP filters



#### Electronic Materials

Photoresists, strippers for LCD, toners, OLED materials, electrolytes, cathode materials, printed circuit materials



#### Film

Light shaping films (LSF), DAF for semiconductor packaging application

## AFFILIATION WITH MAJOR EXTERNAL ORGANIZATIONS & ASSOCIATIONS

### Korea Business Council for Sustainable Development (KBCSD)

- Drive sustainable development at a global level
- Build partnership with WBCSD

### Business Ethics and Sustainability Management for Top Performance

- A multilateral forum for disseminating ethical management practices and corporate culture
- Launched by the Institute for Policy Studies (IPS)
- Exchange of ethical management practices and information

### Korea Association of Environmentally Friendly Companies

- A group of companies designated as eco-friendly enterprises
- Promote environmental management through seminars and workshops
- Yeosu, Cheongju, Ochang, Ulsan, Naju and Iksan plants

### Other Industry Associations

- Korea Petrochemical Industry Association, Korea Responsible Care Council, Korea Chemicals Management Association, Korea Automobile Manufacturers Association, Korea Mech. Const. Contractors Association

## CEO Message

LG Chem has strongly dedicated itself to seeking the most optimal way towards sustainable growth last year through implementing our mid-to long-term strategy and managing for sustainability, even as we faced intensifying competition across the global landscape.



**Dear stakeholders,**

Last year, we set a new milestone in our history, reaching a new high in our performance. We posted KRW 13 trillion and 694.5 billion in sales revenue and KRW 1 trillion and 944.8 billion in operating income. We believe that such excellence in performance was made possible because of the interest and support of our stakeholders, and sincerely want to convey the words of appreciation to you all.

Competition was a keyword describing the year 2009. Businesses around the world competed aggressively with one another to emerge stronger from the global financial turmoil. It was even more evident for the chemical industry, as global chemical players went on massive capacity expansion around the Middle East and China.

We maintain a firm belief that a strong commitment to sustainability management enhances stakeholder value, ultimately contributing to a continued growth of the company. That is why we explored every avenue last year to find the right way to facilitate sustainable growth of LG Chem even in the face of heavy global competition, through implementing our mid-to long-term strategy and managing for sustainability.

Climate change and environmental challenges are becoming increasingly important management agenda for the chemical industry. LG Chem, in response, has taken steps ahead of others to set up an environmental management system and is developing a systematic and effective environmental management. Taking a step further, we are now producing and disseminating batteries for electrical vehicles in line with the global auto industry's move towards green car development, thus contributing to the conservation of the global environment. LG Chem is also fully participating in the global endeavor to address climate change. As part of such effort, we registered our CDM project for switching to liquefied natural gas (LNG) at Naju plant with the UN, which not only improves ambient air quality for the local community, but also enables us to secure carbon credits.

Being a corporate citizen to help enrich our neighbors' lives underpins our management activity in fulfilling our social responsibility. Indeed, we are making our workplace more enjoyable and exciting for our employees by promoting work-life balance, and are providing a wide range of training programs to develop their competency as they are undoubtedly our key internal stakeholders. Moreover, we offer technical and management support to our suppliers to drive parallel growth, based on our conviction that the competitiveness of our business partners is in fact our competitiveness at LG Chem. Furthermore, we are actively involved in a diverse set of activities as a corporate citizen to make our community a happier and more livable place. We go beyond our boundaries to help enhance the quality of lives of all stakeholders through educational, welfare and volunteer programs.

The journey to sustainability management begins with identifying stakeholder needs and embedding the insight into management practice. Through this Sustainability Report, LG Chem tried to share our sustainability management activities and performance over the last one year with transparency and accuracy. Moving forward as well, we will continue to listen closely to the voice of our stakeholders and stay dedicated to creating greater value for the stakeholders through managing for sustainability.

We ask for your continued support and encouragement in our endeavors.

Thank you.

April 2010

Peter Bahnsuk Kim Vice-Chairman & CEO



# LG CHEM AT A GLANCE

## Customers



We deliver our products to 17,000 corporate customers.

## Shareholders



We posted record-high sales of KRW 13.7 trillion.

## Employees



We employ 8,337 people in Korea and 5,652 overseas.

## OUR IMPACT



Customer base

**17,000** companies

Sales revenue

**KRW 13.7** trillion



Employees & executives

**13,989** persons



## OUR EFFORT



We seek to bring greater delight to our customers by innovating customer value and listening to their voice through Solution Partner programs.



We deliver performance excellence through Speed Management, on the basis of transparency in corporate governance.



We remain committed to enhancing competency and the quality of lives of our people, while ensuring safety and health at workplace.

LG Chem works to identify economic, environmental, and social impact from our business activities, and takes a wide range of initiatives to improve stakeholder value and preserve our environment.

Environment



We achieved a total 193,157 tons of certified GHG emission reduction.

Certified GHG emission reduction  
**193,157** tons



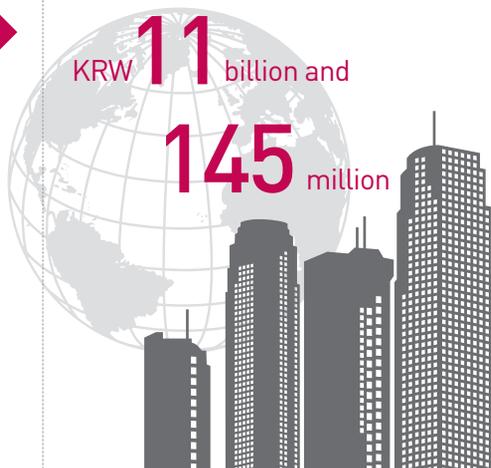
Society



We donated KRW 11 billion and 145 million to better care for our community.

Social contribution

KRW **11** billion and  
**145** million



Suppliers



We handled KRW 11 trillion in transactions with our suppliers.



Suppliers

KRW **11** trillion



We are dedicated to environmental preservation through EMS, eco-friendly product development and ensuring compliance with environmental regulations.



We bring harmony in society through education, welfare, community outreach and overseas social contributions.



We reinforce competitiveness of our suppliers and LG Chem by promoting management rooted in partnership.

# 2009 SUSTAINABILITY REPORT

This report, which is the fourth sustainability report of LG Chem, was designed to bring a transparent disclosure on our sustainability management activities to stakeholders and gather their input and feedback to enhance our sustainability performance.

This report is the fourth sustainability report published by LG Chem. Through stakeholder communication, we identified the need for refining our management strategy, environmental and social policies, and guidelines and incorporated such learning in developing our report. We will continue to bring more concrete and meaningful information to the stakeholders to better meet their needs in the future.

## REPORTING CRITERIA AND KEY FEATURES

This report has been drawn up in accordance with the reporting guidelines of the Global Reporting Initiative (GRI), the international standard for sustainability report. In addition, this report reflects a number of other criteria from home and abroad, i.e., DJSI checklist, EICC self-assessment questionnaire, SRI evaluation criteria from KRX, investment criteria used by Korean financial institutions with a focus on environmental performance as well as requirements from sustainability management firms.

The purpose of sustainability reporting is to bring a transparent disclosure to sustainability management of a company and collect feedback and input from stakeholders to deliver better sustainability performance. Moreover, the reporting process can guide a company to identify opportunities for improvement in their organization and facilitate information exchange among each process owners. We have published this report with these specific goals in mind.

## REPORTING PERIOD AND SCOPE

This report covers the period from January 1, 2009 to December 31, 2009. Performance data from 2006 to 2009 were also disclosed when it became necessary to show historical trends. The report covers our head office in Seoul, eight other plants in Korea (Yeosu, Cheongju, Ochang, Ulsan, Gimcheon, Naju, Iksan and Daesan) and LG Chem Research Park (Daejeon). Activities and performance from the Industrial Materials Company which were covered in last year's report have been excluded from this report as it was spun off from LG Chem as LG Hausys, Ltd. as of April 1, 2009.

## RECENT PUBLICATION

LG Chem has been issuing sustainability reports every year since 2007. This report, available in both Korean and English, can also be viewed from our website at <http://lgchem.com>. The last report published most recently is '2008 Sustainability Report' from April 2009.

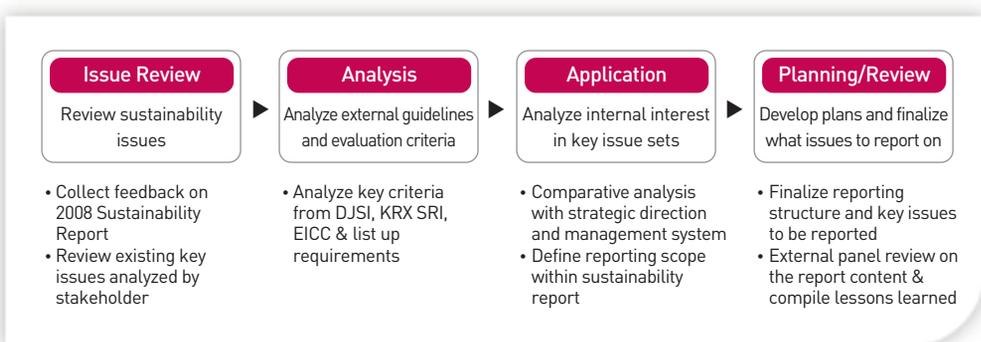
## ASSURANCE

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 statement in page 84-85 for more detail.

# MATERIALITY TEST AND STAKEHOLDER COMMUNICATION

We conducted a four-stage materiality test to identify issues that are important to our stakeholders and our company, and to reflect the findings in the report.

During the materiality test process, we performed an intensive review on key information that sustainability management consulting firms and financial institutions requested LG Chem to disclose. We also looked into the outcomes of stakeholder communication undertaken by each of our business divisions.



Materiality test was performed largely in four stages.

- Stage 1** Our sustainability team collected feedback on our 2008 report through external stakeholder meetings to identify what needs to be improved for the 2009 report. In addition, we shared with our cross-functional taskforce team the previous materiality test results and learning from stakeholder activities.
- Stage 2** We analyzed external guidelines and evaluation criteria to categorize them by economy, environment and society.
- Stage 3** We compared the categories with our key internal issues. We defined the scope of sustainability reporting via a comparative analysis against our business strategy, “Jeong-Do” management, environmental management system and human rights and labor regulations.
- Stage 4** We synthesized the above procedures to finalize the structure and key issue categories for 2009 Sustainability Report, and discussed with the taskforce team what detailed contents need to be included in the report. We also listened to experts from the fields of economy, environment and society on sustainability management and sustainability report.

## ▼ Key Stakeholder Communication Activities ▼

|                          |  |
|--------------------------|--|
| Shareholders & investors | Corporate IR, financial disclosure, credit evaluation          |
| Employees                | Labor-Management council, customer satisfaction survey         |
| Customers                | VOC process, customer satisfaction survey, PL monitoring       |
| Local communities        | Education, social service projects, community outreach         |
| Citizens                 | Website, company newsletter                                    |
| Suppliers                | Briefings for suppliers, management/technical support programs |

\*Six stakeholder groups are those groups that impact and are impacted by LG Chem, identified in the process of analyzing sustainability management issues in early 2009, with assistance from external research firms. Significance of each stakeholder group was taken into account from an internal perspective and equivalent weights were assigned to each group for evaluation and selection.

## 2009 HIGHLIGHTS

We have achieved impressive results in 2009. Such excellence in performance will take LG Chem to the next level of growth in all aspects of sustainability management - economy, environment and society - and contribute to delivering enhanced value to the stakeholders.

### Construction of ABS Plant in Huanan, China

In July 2009, Vice-Chairman & CEO Peter Bahnsuk Kim took part in a signing ceremony in Beijing with Wu Zhenfang, president of China National Offshore Oil Corporation (CNOOC), which is one of the top three Chinese petrochemical companies, to mark the establishment of CNOOC & LG Petrochemicals Co., Ltd. - a joint venture for building a Acrylonitrile Butadiene Styrene (ABS) plant in Huana, China.

### Reaching a New High in Business Performance

We posted KRW 13 trillion and 694.5 billion in sales, and KRW 1 trillion and 944.8 billion in operating income, by far the highest figures in history. Such results were enabled by a consistent focus on building competitiveness since adoption of Speed Management in 2006.



### Groundbreaking Ceremony for Electric Vehicle Battery Manufacturing Plant

A groundbreaking ceremony for an electric vehicle battery plant was held in Ochang Techno Park in June 2009. The manufacturing plant, as the first state-of-the-art battery manufacturing plant in Korea for electric vehicles, will enable LG Chem to secure a competitive advantage in technology and establish a mass-production system, to ultimately strengthen its market leadership in the future.

### Groundbreaking Ceremony for LG Paju High-Tech Material Complex

A groundbreaking ceremony for 'LG Paju High-Tech Material Complex' was held at Wo-long Industrial Complex in Paju, Korea in September, 2009. Under a corporate policy to intensively nurture LCD glass substrate business as a new growth driver, we plan to invest KRW 3 trillion by 2018 to build annual production capacity exceeding 50 million m<sup>2</sup>.

### Grand Prize Winner of 2009 Korea Green Award

We won the grand prize in the industry category (Award from Minister of Knowledge Economy) for 2009 Korea Green Award in June 2009. The award was given in recognition of our endeavors to become greener in our production, through adopting Life Cycle Assessment (LCA) to evaluate potential environmental impact in our product lifecycle and improve environmental sustainability of our products, along with energy efficiency programs.

### Vice-Chairman & CEO Peter Bahnsuk Kim, Officially Debuting as an ICCA Director

Vice-Chairman & CEO Peter Bahnsuk Kim began his official duty as a director of International Council of Chemical Association (ICCA) in March 2009. His appointment as an ICCA director comes as a first among CEOs of Korean chemical companies.

### Award for Excellence from Korea's Most Admired Companies • CEO Award

In April 2009, we received an award for excellence in the corporate business category from the Korea's Most Admired Companies • CEO Award. We were given the privilege in acknowledgement for our outstanding business performance in 2009 with KRW 1 trillion in net income, and for our leadership over the past 60 years in shaping and guiding the Korean chemical industry.



### Registration of CDM Project with UN

We registered with the UN the CDM project at Naju plant designed to replace bunker fuel oil C with a cleaner form of fuel, liquefied natural gas (LNG). As a first to register for the fuel-switching business in the industrial sector in Korea, LG Chem has now secured approximately 200,000 CER (or certified emission reduction from the UN, measured in tCO<sub>2</sub>-eq) over the next 10 years.

### Winner of Mecenat Awards 2009-Award for Culture Management

The Mecenat Awards, organized by Korean Business Council for the Arts and sponsored by Maeil Business Newspaper, are given to those companies actively engaged in cultural and social contribution activities. We received this honorable award in recognition of our Mecenat activities such as Musical Holidays with LG Chem-a joint music program with a musical troupe Taru performed over the past 3 years, targeted at culturally marginalized regions in Korea.

### Grand Prize Winner of Global Green Management Excellence Award-in Sustainability Reporting

In September 2009, we won the grand prize for Global Green Management Excellence Award 2009 in the sustainability report category. This two-year consecutive win in the sustainability report category from 2008 speaks for our performance in sustainability management.

# 01

## SUSTAINABILITY SYSTEM

12\_ SUSTAINABILITY MANAGEMENT VISION

14\_ CORPORATE GOVERNANCE

16\_ "JEONG-DO" MANAGEMENT

20\_ CORPORATE CULTURE

22\_ RISK MANAGEMENT





# 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 the talented, and loved and respected by society.



## **Polarizers**

Six-layered, composite films that selectively allow the passage of only certain orientation of light, with application in TFT-LCD including notebook PCs and computer monitors as a key optical film.

## **Advanced Automotive Batteries**

Rechargeable batteries with high-energy density, high-capacity and high-output, applied to electric vehicles that run on electrical motors as well as used for high-performance, long-term power storage.

# Sustainability Management Vision

## SUSTAINABILITY SYSTEM

LG Chem helps to build a sustainable world through sustainability management that seeks balanced development of the environment, society and economy.



### VISION

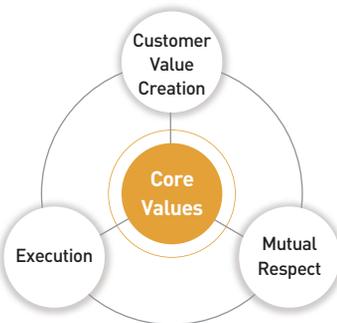
Our vision is to become a global leader that grows with its customers through delivery of innovative materials and solutions. Achieving a shared growth with our customers through differentiated value offering is what defines the raison d'être of LG Chem and serves as a force that propels us to become a Global Leading Company. LG Chem will make dedicated endeavors to grow into a company that is trusted by customers, most favored by investors, preferred by the talented, and feared yet respected as a benchmark for competitors.



### CORE VALUES

Core values set the standards of conduct and judgment that every member of LG Chem must embrace to materialize the vision of the company. 'Customer Value Creation', 'Execution', and 'Mutual Respect' define the core values of LG Chem.

#### Core Values



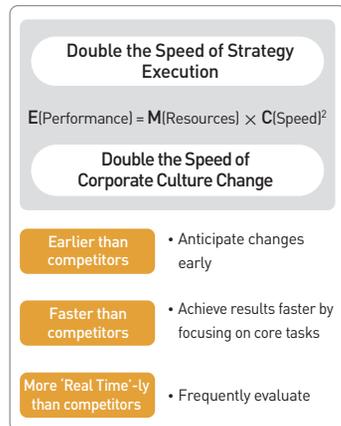
#### Customer Value Creation

We deliver value that substantially improves customer performance and competitiveness. We act to enhance customer value with a customer-centric mindset and a deep understanding of both our customers and their markets.

#### Execution

Execution is essential to bringing corporate objectives and aspirations to fruition. It is a systematic process that requires an objective view of reality, thorough analysis, and concrete planning to achieve our goals.

## Speed Management



### ■ Mutual Respect

Mutual respect plays a key role in building effective teams and the capacity to make breakthroughs. This teamwork, strengthened by mutual recognition and respect, is what empowers us to achieve our goals.

## SPEED MANAGEMENT TO CREATE EXCELLENT PERFORMANCE

Speed Management, a unique means to guiding implementation of LG Way in LG Chem, enables acceleration of strategy execution and organizational transformation with a focus on market and customer, to realize our vision as a Global Leading Company that delivers sustainable performance excellence. There are three core Speed Management initiatives- 'No.1 in Core Business', 'Customer Value Innovation' and 'Global Organizational Capability'- of which are executed through an "earlier than competitors", "faster than competitors" and "more 'real time'-ly than competitors" approach.

### ■ Earlier than Competitors

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

### ■ Faster than Competitors

Being fast is about focusing on the core to accelerate performance creation. This is to increase the speed of decision making through streamlining our 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.

### ■ More 'Real Time'-ly than Competitors

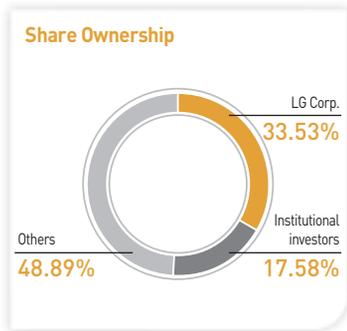
Being real-time means checking our progress as often as possible to accelerate execution and performance generation, with an ultimate goal of achieving the management objectives and materializing our vision.

Speed Management requires us to concentrate on our core strengths to provide excellent performance. In business management, we are deploying the 'Core Focused Strategy' to focus our time and effort on our core, competitive business areas. In people management, we identify and further reinforce the strengths in our people. In addition, our people accumulate success experiences of achieving challenging goals with strong desire and through flow. By building up these success experiences, we are acquiring breakthrough capability that consistently creates excellent performance. Such an approach will enable LG Chem to drive sustained excellence in performance to position itself as a true Global Leading Company in the marketplace.

# Corporate Governance

## SUSTAINABILITY SYSTEM

We are ensuring accountability in professional management system and transparency in governance through empowering the Board of Directors, thereby maximizing shareholder and corporate values.



## IMPROVEMENT IN CORPORATE GOVERNANCE

The adoption of a holding company structure by LG Group in 2003 brought significant improvements in our corporate governance by removing cross-shareholding, enabling LG Chem to solely focus on its proprietary business to maximize corporate value while the holding company takes full charge of investment. Moreover, distortions in the ownership structure caused by discrepancies in ownership interests and voting stock have been addressed and internal · external checks and balances have been strengthened. Indeed, the holding company framework has helped eliminate the risk of a group-wide insolvency and deepened transparency in corporate governance.

With Vice-Chairman Peter Bahnsuk Kim at the helm of LG Chem since 2006, highly-qualified outside directors who come from petrochemical background as ex-CEOs of global chemical companies have been additionally appointed. We have established a professional management system to enhance management accountability, and empowered the Board of Directors to improve corporate transparency, thereby deepening robustness of our business at both home and abroad. In addition, we have given stronger autonomy to the Board of Directors and the Audit Committee. This series of actions have enabled us to lay a firm basis for improving corporate governance and delivering maximum shareholder and corporate value.



Field-driven Management by the Board

## BOARD OF DIRECTORS

There are total 7 directors presently sitting on the board at LG Chem, with four outside directors representing more than the majority. Such composition, by design, prohibits an agenda item from being approved if and when all four outside directors voice opposition to that item. Our outside directors come from various fields of expertise and experience, such as law, chemical science and finance. They monitor and check the management on key issues of corporate operation and take on a vital role in decision making by presenting impartial views. To embed accountability in management, the Board reserves the right to hold the management accountable for any practice that goes against shareholder interest as the directors retain the authority to appoint and dismiss executive managers.

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 to improve operational efficiency. The secretariat reports and informs the outside directors on mid-to long-term management and current business issues on a frequent basis. Prior to a Board meeting, the secretariat and relevant divisions visit the outside directors in person to report them on key management issues and agenda so that the directors can make fully informed, detailed yet comprehensive analysis and reviews beforehand.

In addition, our articles of incorporation and board regulations disallow directors to exercise voting rights if there is a potential conflict of interest. Quarterly board meeting schedules for the following year are set at the end of each year and are announced to the Board, after considering for individual schedule needs. Additional ad-hoc meetings are called for as well to respond to any urgent management issues.

## Board Meetings 2009

|                    |   |
|--------------------|---|
| Number of meetings | Nine times  |
| Attendance         | 95% on average  |
| Key agenda         | <ul style="list-style-type: none"> <li>Reporting on management performance and approval of the business plan</li> </ul> |
|                    | <ul style="list-style-type: none"> <li>Establishment of overseas subsidiaries and CAPEX plans</li> </ul>                |
|                    | <ul style="list-style-type: none"> <li>Voluntary compliance of fair trade rules</li> </ul>                              |

\* A variety of economic, environmental and social issues related to LG Chem's business are handled at the BOD, on top of the key agenda items as described above.



Board of Directors

## Composition of the Board of Directors

| Category         | Name              | Key Career Experience   | Role  |
|------------------|-------------------|---|---|
| Inside director  | Yu-Sig Kang       | Vice-Chairman & CEO of LG Corp.<br>Director of LG Electronics Inc.<br>Director of LG International Corp.  | Chairperson of the BOD<br>Chairperson of the Nomination Committee for Outside Directors |
|                  | Peter Bahnsuk Kim | Vice-Chairman & CEO   | CEO   |
|                  | Suk-Jeh Cho       | President & CFO   | CFO   |
| Outside director | Ho-Soo Oh         | Former chairman of Korea Securities Dealers Association<br>Outside director for Redcaptour Corp.<br>Advisor at Shin & Kim<br>Advisor at Atinum Partners | Auditor   |
|                  | Il-Jin Park       | Former chairman of Dow Chemical Korea<br>Chairman of IJ International Corp.   | Member of the Nomination Committee for Outside Directors                                |
|                  | Sang-Hyung Ahn    | Professor at Seoul National University Business School  | Term expired on March 20, 2009 (retired)  |
|                  | Kon-Sik Kim       | Dean of the School of Law/ Graduate School of Law, Seoul National University  | Chairperson of the Audit Committee  |
|                  | Young-Moo Lee     | Professor of applied chemical engineering and bio engineering, Hanyang University   | Auditor   |

## AUDIT COMMITTEE

With a view to ensure transparency and independence from majority shareholders and the management, all three of the committee seats are filled with outside directors, including Kon-Sik Kim who is a leading Korean expert in corporate restructuring. They hold a duty to establish, implement, evaluate and improve the internal audit plans in an independent manner. Apart from regular, quarterly committee meetings, the Audit Committee consults on a real time basis when important issues arise to faithfully fulfill its role as a monitoring mechanism on the management.

The committee is briefed directly on the settlement of accounts by an external auditor, both regularly and irregularly, to receive external advice on internal monitoring mechanism and is also reported on quarterly earnings performance and internal audit plans in advance to discuss key matters of interest. Moreover, external auditors go through a rigorous fit and proper test before they are appointed after their expertise, impartiality and social reputation are fully factored into consideration.

## NOMINATION COMMITTEE FOR OUTSIDE DIRECTORS

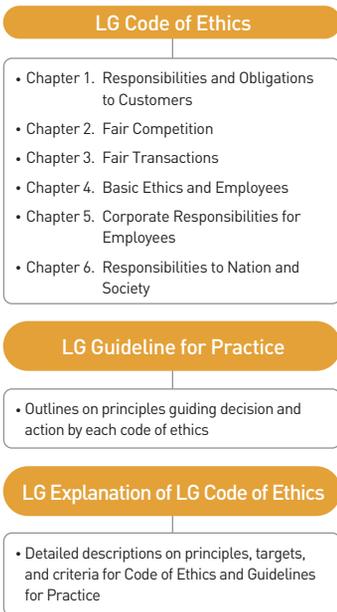
LG Chem appoints outside directors through the Nomination Committee for Outside Directors to guarantee their independence and autonomy. The Nomination Committee, which is comprised of one inside and one outside directors, unanimously decides to recommend qualified candidates with expertise and impartiality, who then get formally appointed with an approval from the general meeting of the shareholders. Incumbent outside directors are assured of their say in the nomination process for new outside directors.

# “Jeong-Do” Management

## “Jeong-Do” Management



## Code of Ethics Structure and Outlines



## SUSTAINABILITY SYSTEM

“Jeong-Do” Management is LG’s unique application of ethics. LG will succeed through fair management practices and constantly developing our business skills.

## OUR JOURNEY TOWARDS “JEONG-DO” MANAGEMENT

LG has continued to achieve significant progress in its journey towards “Jeong-Do” Management since 1995 when it officially declared 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.

## LG CODE OF ETHICS

As a guide for ensuring integrity in our action and judgment at LG, our code of ethics are shared and acted upon by all our executives and employees working at all business sites of LG. The Code, translated into fourteen different languages, is accessible from our webpage to make sure that even the independent third parties who have business transactions with LG fully understand and get involved in implementing them.

## RESOLUTE COMMITMENT FROM THE CEO

Everyone at LG Chem shares a firm commitment of the CEO 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.

## ORGANIZATION

### 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 targeted at our employees and business partners. Moreover, ethics offices are set up at each plant and business company to translate “Jeong-Do” principles into practice-for instance, they are responsible for conducting field-oriented promotional/educational activities while identifying and addressing unfair business practices.

### Internal Audit Team

The Internal Audit Team is responsible for checking the implementation and the compliance with corporate policy, directives, any rules or management instructions to maintain a systematic management structure across organization. With a mission to promote management rationalization, transparency and integrity, the team plans and performs regular audits on LG Chem business sites around the world every year.

### Internal Audit Council

LG Chem operates an Internal Audit Council as an independent deliberation body for ensuring impartiality in internal audit and investigation, comprising members with responsibilities for internal audits, legal affairs, HR (or Employee Relations) as well as the head of ethics office from relevant areas.

## "JEONG-DO" MANAGEMENT PROGRAMS



"Jeong-Do" Management Training

### ■ "Jeong-Do" Management Training

Online and offline trainings for "Jeong-Do" Management are available to all executives and staff in domestic and overseas subsidiaries and offices. Both theories and case studies are introduced in the training courses to internalize "Jeong-Do" Management in our corporate culture and increase the ability of execution. We also regularly organize meetings with our suppliers to share the values and commitment to "Jeong-Do" Management of LG Chem, thus helping our suppliers promote management integrity and embed fair business practices.

### ▼ Training Activities of "Jeong-Do" Management of 2009 ▼

| Category                  |                    | Trainees                 | Type                 | Number of people trained (actual)             |                             |
|---------------------------|--------------------|--------------------------|----------------------|---|-----------------------------|
| Employees & executives    | Korea              | White-collar employees   | Sales managers       | Collective training (lecture & debate)        | 246 persons (2 hours/class) |
|                           |                    | White-collar employees   | New team leaders     | Collective training                           | 31 persons (1 hour/class)   |
|                           |                    |                          | New purchasing staff | Collective training                           | 2 persons                   |
|                           |                    |                          | All employees        | Online training                               | 3,550 persons               |
|                           | Industrial workers | Senior & daily workers   | Collective training  | 887 persons (30 minutes per class)            |                             |
|                           | Overseas           | China subsidiaries       | Leaders              | Collective training                           | 198 persons                 |
| All overseas subsidiaries |                    | All employees            | Online training      | 1,352 persons (1,075 in China, 277 elsewhere) |                             |
| Business partners         |                    | CEO and person in charge | Collective training  | 506 persons (30 minutes per class)            |                             |



Ethics Hotline



### Reported Gifts and Donations

|   | 2006 | 2007 | 2008 | 2009 |
|---|------|------|------|------|
| Donation to welfare facilities (KRW 10,000) | 302  | 200  | 95   | 272  |
| Number of facilities supported              | 8    | 4    | 1    | 3    |



Q&A Website for "Jeong-Do" Management

### ■ 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 positions to engage in wrongful business conduct and bribery, along with any violations of the LG Code of Ethics. Informants can report the cases via both online and offline, using telephone, fax, and post or by directly visiting the site. 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.

### ■ Gift Receipt Reporting System

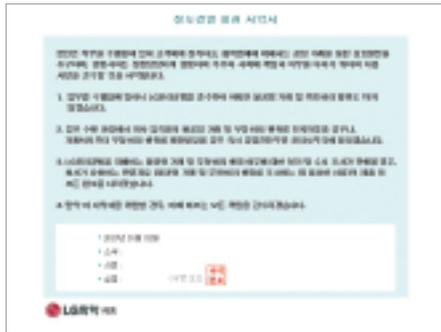
No one at LG Chem is allowed to accept gifts or money from any stakeholders under any circumstances and is expected to politely refuse or return any gifts received. If an employee finds it extremely rude or practically impossible to return the gift or money, then he or she must voluntarily report the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

### ■ Q&A Website for "Jeong-Do" Management

We are running an online Q&A website for our employees to address any queries or problems in implementing "Jeong-Do" Management.

### “Jeong-Do” Management Pledge of Practice

Everyone at LG Chem and its business partners sign up to the “Jeong-Do” Management Pledge of Practice every year via online, to pledge their commitment to complying with the LG Code of Ethics and “Jeong-Do” Management.



“Jeong-Do” Management Pledge of Practice for Employees



“Jeong-Do” Management Pledge of Practice for Business Partners

### “Jeong-Do” Management Survey on Employees and Business Partners

We commission the LG Economic Research Institute, a specialized external institute for research, to conduct surveys on our executives and staff with a view to gauge the level of their awareness about “Jeong-Do” Management, and to identify opportunities for improvement. The outcomes of the survey are shared with everyone at LG Chem through our company newsletters. Similarly, the Institute carries out annual surveys on our key business partners about their current practices of “Jeong-Do” Management and improvement plans to promote fair trade and build win-win partnership.

### Compliance Program



#### CP Manager

- Appointed by the Board among senior executives
- Oversees the compliance organization to perform internal audits, legal trainings and preliminary reviews for compliance

#### Internal audits

- Annual internal audits on key divisions and business sites
- Monitoring compliance and ensuring prompt self-corrective measures on violations

#### Legal trainings

- Distribution of fair trade manuals & textbooks, along with trainings performed by in-house & external invited lecturers to heighten the awareness and promote a culture of fair trade

#### Preliminary reviews

- Comprehensive, mandatory, preliminary reviews for planning, sales, marketing, purchasing and finance, conducted by in-house compliance experts in advance of any business undertaking to ensure legal conformity.

### FAIR TRADE

LG Chem rules out all possible expedient means for pursuing short-term results only, such as through unfair business practice and violating rules. We engage in fair trade to foster longer-term, sustainable competitiveness. A firm dedication of our top management to fair trade underpins our compliance program.

### Compliance Program

The Compliance Program (CP) for fair trade is our internal system to ensure organizational compliance with fair trade laws. The program takes a preventive approach to prevent legal violation through employee trainings and presenting guidelines for conduct, while adopting a proactive approach to detect and redress the problems early on through periodic internal audits. LG Chem has been running its own compliance program since 1995, and after entrenching all 7 elements of the compliance program recommended by the Fair Trade Commission, along with our CEO’s declaration of his commitment to compliance, we became formally registered with the Korea Fair Competition Federation in 2002.

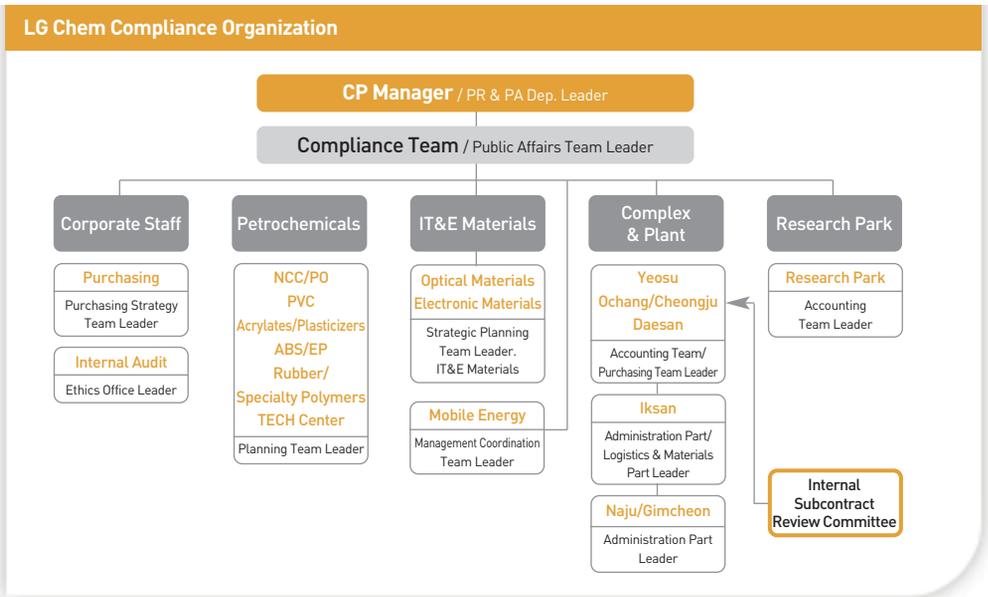
### Organization

To operate the Compliance Program most efficiently and effectively, we have placed a stand-alone compliance team under an executive-level CP Manager to take on the responsibility of planning and implementing the program and reporting to the BOD. In addition, some 40 Fair Trade Facilitators of LG Chem, of which two or more are designated for each division, business site and plant, are rigorously making sure no violation of fair trade takes place at LG Chem. Moreover, to promote fairness in subcontracting with small-and medium-sized suppliers, we run an internal subcontract review committee to preliminarily screen any subcontract transaction over a certain amount to check for legitimacy.

**Overview of Compliance Program**



A Member CP Company with the Korea Fair Competition Federation



**PERFORMANCE OF THE COMPLIANCE PROGRAM**

In 2009, internal audits and trainings pertaining to the Fair Trade Act and the Fair Subcontract Act were carried out across five business divisions and two complexes at LG Chem.

A special focus was placed on the prevention of cartel<sup>1)</sup> in the sales area. On the purchasing front, checks were conducted to identify any violation of the Fair Subcontract Act, such as 'Determining Unreasonable Subcontracting Prices' and to monitor effective implementation of 'The Fair Subcontract Agreement' reached with small-and medium-sized suppliers in November 2008. Such activities were conducted with endeavors to become a paragon of win-win partnership between large company and small-and medium-sized suppliers.

Furthermore, Fair Trade Facilitators for each business division/plant were designated to undertake professional trainings on relevant laws and regulations on fair trade. They were given a duty to promote fair trade culture at each division/plant, detect unfair transactions early on, and drive voluntary corrective actions so that each business site can take the initiative in operating an individual, voluntary Compliance Program.

▼ Performance in Compliance Program ▼

[Number of business divisions]

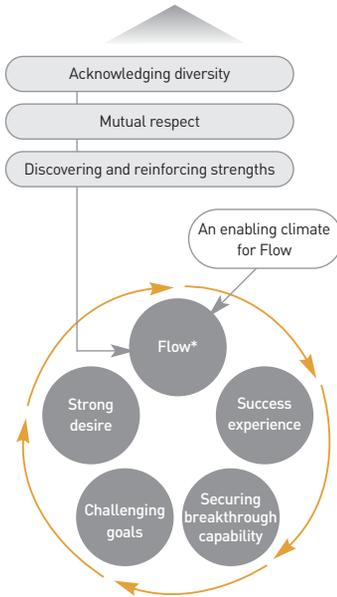
| Year | Internal audit on fair trade | Legal training on fair trade | Others  |
|------|------------------------------|------------------------------|---|
| 2006 | 6                            | 4                            | • Declaration of 'Practice Guidelines for Fair Competition', followed by exhaustive internal audits   |
| 2007 | 7                            | 7                            | • Audits & trainings for preventing cartels   |
| 2008 | 6                            | 10                           | • Prevention activities against international cartel, e.g., auditing overseas sales & export teams, on-site trainings for overseas business sites in China and Japan<br>• Signing The Fair Subcontract Agreements with 280 small-and medium-sized suppliers |
| 2009 | 7                            | 7                            | • Designate/manage Fair Trade Facilitators at each business division/plant<br>• Check implementation of The Fair Subcontract Agreement  |

# Corporate Culture

## SUSTAINABILITY SYSTEM

### Building a Corporate Culture of Ingenuity and Autonomy

Build a corporate culture of ingenuity and autonomy and generate sustained, excellent performance



\* The Situation in which 'attention' can be freely invested to achieve goals.  
 < Good Business(2003), Mihaly Csikszentmihalyi >

### Corporate Cultural Transformation Activities

#### Executive Leadership Workshop

- Target: All executives and directors
- Frequency: Quarterly
- Purpose: Share and discuss business strategy and leadership to become No.1 LG Chem

#### Team Leader Leadership Workshop

- Target: All team leaders and project leaders
- Frequency: Half-yearly
- Purpose: Share and discuss business strategy and leadership to become No. 1 LG Chem



Executive Leadership Workshop

LG Chem is engaged in the overall transformation of a corporate culture through embedding 'Speed Management based on LG Way'. We drive ingenuity and autonomy across our organization to enhance global organizational capability and support to achieve excellent performance.

### CORPORATE CULTURE TRANSFORMATION

We believe that our unique competitiveness comes from each and every member of LG Chem. Guided by LG's fundamental philosophy of LG Way and its core values, LG Chem is striving to transform its corporate culture by embedding "Speed Management (earlier than competitors, faster than competitors, more 'real time'-ly than competitors)" across organization. The transformation of our corporate culture aims to bring changes in the way we work and the environment we work in, so that our people can continuously generate excellent performance on the basis of a 'culture of ingenuity and autonomy'.

To that end, we encourage our people to engage in a wide range of activities to discover and reinforce their own individual strengths on the basis of mutual trust in a team environment, so that they can truly enjoy and be immersed in their work. Through this process of Flow, people are able to bring out the creativity in them and gain success experience of achieving goals. Success experience, through repetition and sharing, enables people to secure breakthrough capability to go for challenging goals, thereby setting in motion a 'virtuous cycle of achieving goals' for sustainable, excellent performance.

### EMBEDMENT OF SPEED MANAGEMENT BASED ON LG WAY

Everyone at LG Chem is continuously trained on our core values through sharing/embedment programs and learns about the basic concept, importance and linkages between Speed Management and LG Way, the fundamental philosophy of LG. We are also making continuous and consistent efforts in sharing our best practices to firmly embed Speed Management based on LG Way.

Speed Management, a paradigm for enhancing fundamental competitiveness in business, begins with market and customers. For sustainable customer value innovation, LG Chem is implementing Speed Management and Solution Partner activities as well as having executive and team leader leadership workshops to check progress on Speed Management initiatives. We search and share best practices across the organization to facilitate execution for performance generation and disseminate success experience in order to fully embrace the spirit of Speed Management.

### ENHANCING ORGANIZATIONAL CAPABILITY BASED ON LEADERSHIP

All leaders led by the CEO direct every activity for transformation in the corporate culture. 'Trust' serves as a basic enabler for the corporate culture transformation of LG Chem. Indeed, trust is synonymous with mutual respect - being aware of the unique characteristics of each individual. This core value is essential in performance achievement, and enhancing synergy based on teamwork that uniquely characterizes LG Chem.

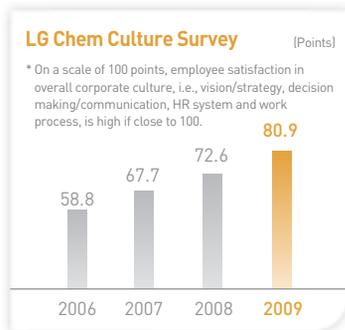
Backed by strong interest and commitment of the executive in the transformation of a corporate culture, leadership programs and coaching support are provided for team leaders to cultivate leadership skills based on trust. Indeed, we continue to refine and improve weak points in leadership skills by drawing lessons learned from leadership surveys and LG Chem culture surveys, thereby building an 'corporate culture of ingenuity and autonomy'.



**Purpose** To embed LG Way and enhance execution-ability through building leadership competence for LG Way

**Respondents** All team/project leaders and directors at LG Chem

**Frequency** Annual

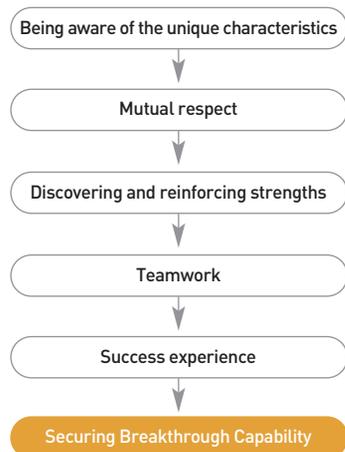


**Purpose** To accelerate cultural transformation at LG Chem through analyzing employee awareness about the corporate culture and refining and improving the weak points

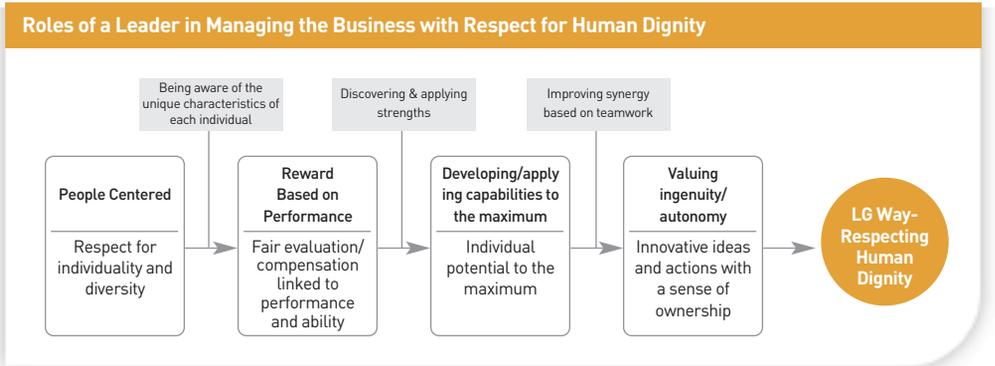
**Respondents** All executives and employees

**Frequency** Annual

**Discovering and Reinforcing Strengths**



Moreover, we share and discuss our corporate strategic directions and plans for enhancing leadership through leadership workshops for executives and team leaders. Such workshops help improve our capability for execution across organization based on leadership that is aligned with our business.



**DISCOVERING AND REINFORCING STRENGTHS**

LG Chem strives to discover and reinforce strengths in every individual to build a corporate culture of ingenuity and autonomy based on LG Way. Such effort begins with acknowledging the fact that everyone is different. Indeed, everyone has a different talent that can turn into a unique strength of their own when combined with knowledge and skills. That is why LG Chem defines strengths as 'Ability to consistently provide excellent performance', and encourages our members to deepen their competence linked to their individual talents. We are stepping up effort to enable people to leverage their competence, be immersed in their work and create tangible results.

In 2009, we trained team leaders to be able to discover and reinforce the strengths of people through leadership programs under the theme of 'Ingenuity and Autonomy' and they took the initiative in carrying out activities such as one-on-one interviews and counseling to find and strengthen the untapped potential of all the team members. Going forward as well, LG Chem will translate individual strengths into greater competence and team synergy, and continuously link them to produce excellent results.

**CONCENTRATING ON CORE TASK AND IMPROVING PERCEPTION OF TASK VALUES**

Building a creative workplace is essential in enabling our people to concentrate themselves on core activities for customer value creation, to enjoy and be creative in what they do. That is why LG Chem has continued to bring changes in our practices of 'reporting/meeting/leaving the office' since 2006 from the standpoint of being Faster than competitors as defined under the Speed Management. We are also working to eliminate inefficiencies in the reporting and meeting process through promoting the use of verbal communication or memos, providing clear guidelines for reports, and sharing agendas and documents prior to the meetings to help individual employees concentrate on their core tasks.

In addition, we put emphasis on the 'Work & Life Balance' and personal growth for our people. We encourage the employees to leave work at the office closing time instead of staying late for their boss so that they can recharge themselves and cultivate their skills in their free time after work. We are helping our employees to be able to focus on their core duties and tap into creativity, and also have fun in their work through experiencing a sense of accomplishment and building an ability to push themselves beyond their limits. Such process will drive the employees to enhance their task value and achieve their own personal vision for growth.

# Risk Management

## SUSTAINABILITY SYSTEM

Our risk management system is designed to manage various forms of risks to corporate sustainability in a holistic and integrated manner. We have a wide range of programs in place to ensure a timely response to predicted risks.

### RISK MANAGEMENT SYSTEM

Our risk management system has three tiers-routine management by the risk owners (1<sup>st</sup> tier); integrated management by the risk-managing organization (2<sup>nd</sup> tier); and the supervisory function of the Board of Directors (3<sup>rd</sup> tier).

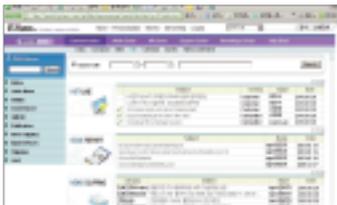
For integrated risk management, a dedicated risk management team provides necessary guidelines and forms for each risk, consolidates the results and reports to the Risk Management Committee (RMC). For those risks that are likely to affect our business, the team analyzes the risks in terms of size, duration and contingency scenarios if a need arises.



Fire Drills by Optical Materials Group



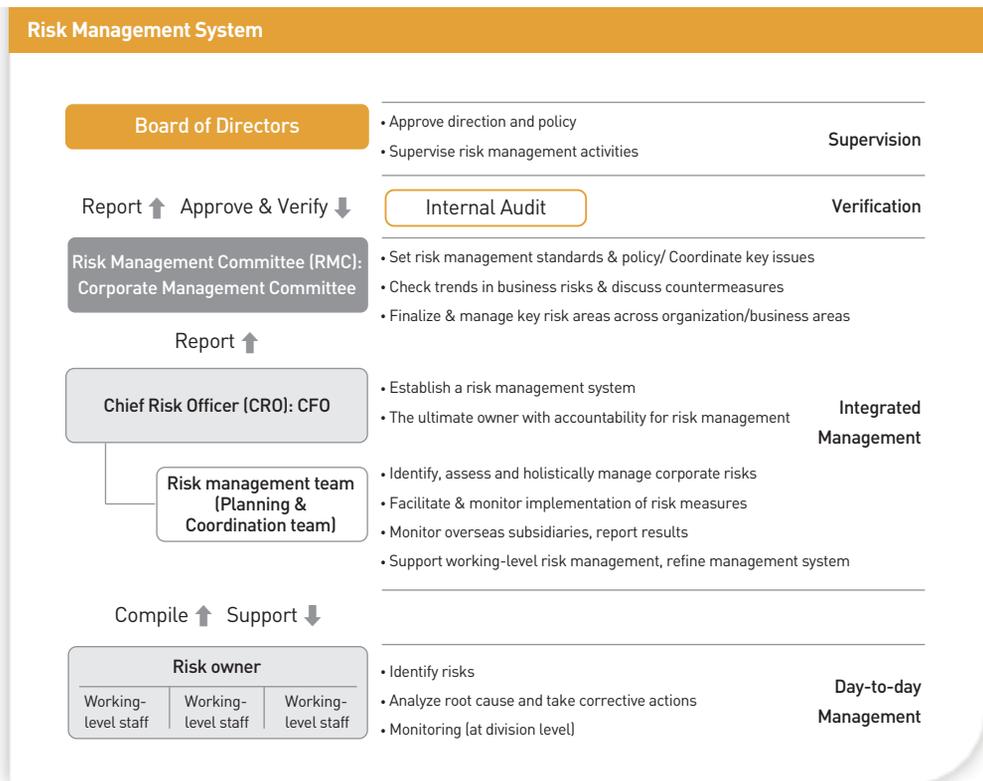
Possible Risk Inspection



Global Market Intelligence (GMI)



Executive Information System (EIS)



Our Internet portal called Elian supports up-to-date information and data for our employees and executives. For example, daily business performance (e.g., sales, production, and working capital) is offered to the senior management through the Executive Information System (EIS) and market trends and reports through Global Market Intelligence (GMI)<sup>2)</sup> to ensure a prompt response to predicted risks.

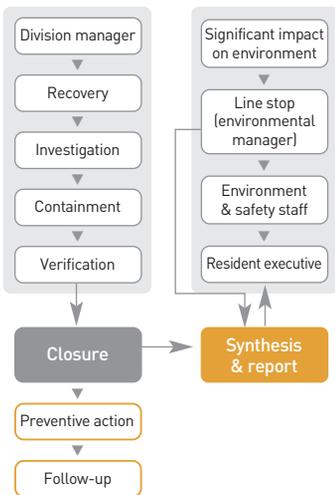
| Key Issues in Risk Monitoring   |  |
|---|--|
| <b>▼ Business Company Risks ▼ : Sales &amp; production risks</b>  |  |
| Category  | Description  |
| Issues in 2009  | <ul style="list-style-type: none"> <li>• Contraction in overall demand triggered by global business recession</li> <li>• Capacity expansion in China &amp; the Middle East, with new petrochemical product launches</li> <li>• Worsening profitability due to a strong Korean Won in 2H</li> </ul>   |
| Monitoring activities   | <ul style="list-style-type: none"> <li>• Check &amp; respond to risks early, fast, and real-time based on Speed Management</li> <li>• Analyze changes in business landscape when establishing mid-to long-term strategy (1H) and business plans (2H); discuss countermeasures; and develop contingency plans per scenario regarding key indicators like oil prices and exchange rate to minimize external risks</li> <li>• Monitor short-term risks monthly when making a report on estimated P&amp;L over the next three months</li> <li>• Discuss product-specific issues and market prospects monthly when making a report on closing accounts</li> <li>• Examine management performance quarterly; discuss issues at working capital meetings on a frequent basis</li> </ul> |
| <b>▼ Investment Risks ▼ : Changes in the business climate for target investments Cash flow risks</b>                                |  |
| Category  | Description  |
| Issues in 2009  | <ul style="list-style-type: none"> <li>• Review and authorize large-scale CAPEX in new businesses such as LCD glass substrate and medium-and large-sized batteries</li> <li>• Review investment for overseas complexes and M&amp;A to pursue inorganic growth</li> </ul>   |
| Monitoring activities   | <ul style="list-style-type: none"> <li>• Minimize investment risks through organizing investment Subcommittees for each business area, Corporate Capex Committee and corporate investment TFT if needed</li> <li>• Report to the Corporate Management Committee on the investment progress once every 6 months</li> <li>• Use green/yellow/red to evaluate key investments after 6 months from the approval of the Corporate Capex Committee based on investment cost and Key Risk Indicators (KRI)<sup>3</sup>, and use the result as an input to interim decision making including adjustment of investment timing</li> </ul>  |
| <b>▼ Indirect Risks ▼ : Risks that need to be controlled at the staff-level, such as legal system, accounting &amp; finance, HR</b> |  |
| Category  | Description  |
| Issues in 2009  | <ul style="list-style-type: none"> <li>• Realign our financial settlement and management accounting system with the introduction of IFRS in 2010</li> <li>• Recruit and develop human resources to support new business development</li> </ul>   |
| Monitoring activities   | <ul style="list-style-type: none"> <li>• Through 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.</li> <li>• In-depth discussions at monthly manager meetings chaired by the CFO (CRO), regarding management planning, accounting, finance and legal matters.</li> <li>• Discuss HR agendas in-depth monthly through HR Development Committee</li> </ul>   |

## FOLLOW-UP ACTIVITIES FOR RISK MANAGEMENT

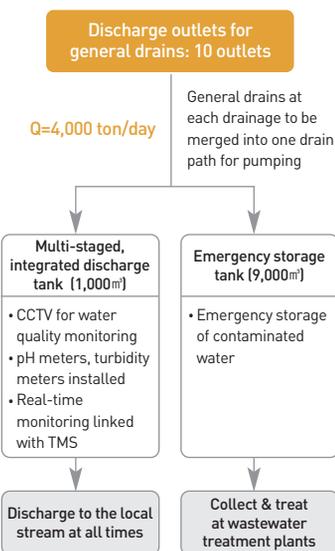
### Internal Audit

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

**Line-Stop System, Cheongju Plant**



**Emergency Storage Tank System, Yeosu Plant**



**Infrastructure Review**

We have realigned operational discretion of domestic companies and overseas subsidiaries to clarify their operational responsibilities and authorities, and raise efficiency.

**CAPEX Auditing**

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 audits, targeting at those projects approved by the Corporate CAPEX Committee, are performed for three years regarding investment initiatives that come to completion in the last 3 years. Actual investment performance is measured against key factors (i.e., sales, operating income, investment cost and duration) and analyzed vis-à-vis initial plans. A project whose scores come below 80 (on a scale of 100) is deemed to be off-track and thus, a countermeasure for putting it back on track is discussed.

**ENVIRONMENTAL AND SAFETY RISK MANAGEMENT**

LG Chem has developed contingency plans, rules and disaster prevention manuals based on a list of environmental and safety risks identified at each site. We offer routine trainings and prevention programs to prepare our organization to respond promptly and immediately in the case of emergency and to minimize impact on our business. In addition to our own emergency drills and trainings, we align with relevant organizations such as local fire departments to conduct joint trainings on a regular basis.

**Risk Prevention Training & Education**

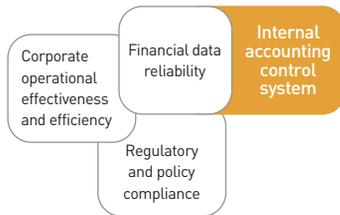
| Activity name  | Purpose                              | Description  | Frequency        |
|--|--------------------------------------|--|------------------|
| Hazards training   | Personal safety & emergency response | Training on hazards, control standards, emergency measures                     | Monthly          |
| Emergency training (in-house)                              | Emergency response                   | Simulation training on readiness in emergency, such as hazards/toxic gas leaks | Quarterly        |
| Emergency training (jointly with external relevant bodies) | Emergency response                   | Simulation training on readiness in emergency, such as hazards/toxic gas leaks | Half-yearly      |
| Environmental drills                                       | Emergency readiness                  | Instructions on responding to chemical leaks/explosion                         | Two times a year |
| Environmental patrols                                      | Emergency readiness                  | Proactive checks on air, water, waste, hazards contamination                   | Daily            |
| Environmental Day  | Emergency readiness                  | Identify and check for environmental risks                                     | Monthly          |

**ACCIDENT PREVENTION**

To ensure a timely response to accidents, we have contingency scenarios developed for different types of emergency situations and environmental & safety equipment, and conduct regular emergency trainings at the plant and team unit. Results of the trainings are systematically analyzed afterwards, with any problems identified and corrective actions taken to refine the scenarios for future trainings.

We have emergency response systems set up at the business site level as well. The Cheongju plant operates a line-stop system and the Yeosu plant has an emergency storage tank system to address hazards contamination in the general drains. Moreover, we have established an end-to-end accident prevention and emergency response system for our distribution and logistics. To be more specific, we keep our drivers trained and up-to-date, our shipping trucks maintained and repaired, and our organization ready to respond effectively and promptly to emergency.

**The Purpose of Internal Control System**



**Milestones in Internal Control System**

**Comply (2004-2005)**

- CEO/CFO certification projects
- Enterprise-level internal control assessments
- Revision of internal accounting control rules
- Key process audits and improvement initiatives

**Improve (2006-2007)**

- Systematic set-up of internal control assessment procedures
- Increasing efficiency in internal control assessment & improvement initiatives
- Key business diagnosis and process improvement
- Capacity building for internal controller

**Transform (2008-to date)**

- Online training
- Upgrading control specifications
- Strengthening internal controls at overseas subsidiaries



Initial View of Internal Control System (FAIR)



Internal Control System Training

**INTERNAL CONTROL SYSTEM**

**The Need and Significance of Internal Controls**

An internal control system refers to a series of continuous activities led by the board of directors, management and other members of the organization to assure reasonable confidence in achieving 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 and elevate management accountability to earn confidence from investors. The Capital Market and Financial Investment Business 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, and follow the best practice in internal accounting control system to ensure financial data reliability, corporate operational effectiveness and efficiency, and regulatory and policy compliance.

**Internal Control System-Process 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 our business process based on a constant emphasis on training and education. LG Chem appointed the CFO as our internal accounting controller and placed a dedicated department for internal control under an Accounting & Tax Department. 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 to address their weaknesses and follow up on its implementation to drive operational excellence. Evaluation results are then reported to the BOD and the audit committee, and get reviewed and certified by the audit committee and external auditors.

**Organization**

| Organization                   | Roles & Responsibilities  |
|--------------------------------|---|
| BOD/Audit Committee/Management | Foster an environment conducive to control, review and approve evaluation results                                   |
| Internal accounting controller | CFO appointed as an internal accounting controller in 2004 to operate the internal accounting control system        |
| Frontline departments          | Conduct risk assessments in team activities, design control initiatives, self-diagnosis and improvement initiatives |
| Internal control department    | Design/operate the internal accounting control system, evaluation, documentation and testing                        |

**Operational Regulations**

| External  | Internal   |
|---|--|
| Best-practice standards and guidelines for internal accounting control system | Internal accounting control regulations, operational guidelines for internal control evaluation system |
| Review standards and guidelines for internal accounting control system        | Testing guidelines for internal control system   |

**Follow-Up**

| Category    | Description   |
|-------------|---|
| Reporting   | Corporate operating committee/BOD (annual), external auditor/"Jeong-Do" Management TFT (annual) |
| Feedback    | Feedback from evaluation to facilitate improvement activities at working-levels                 |
| Improvement | Improvement plans and initiatives taken to follow up on the evaluation results                  |

# 02

## ECONOMY

28 \_ BUSINESS STRATEGY AND PERFORMANCE

33 \_ INNOVATION ACTIVITIES

37 \_ PRODUCT LIABILITY





# SEEKING THE TRUE VALUES IN LIFE

We continued to remain dedicated to delivering performance excellence in 2009 despite a challenging business climate and stayed focused on our three strategic initiatives – ‘Reinforcing Core Business’, ‘Customer Value Innovation’ and ‘Enhancing Organizational Capability’.



## **Metallocene PE**

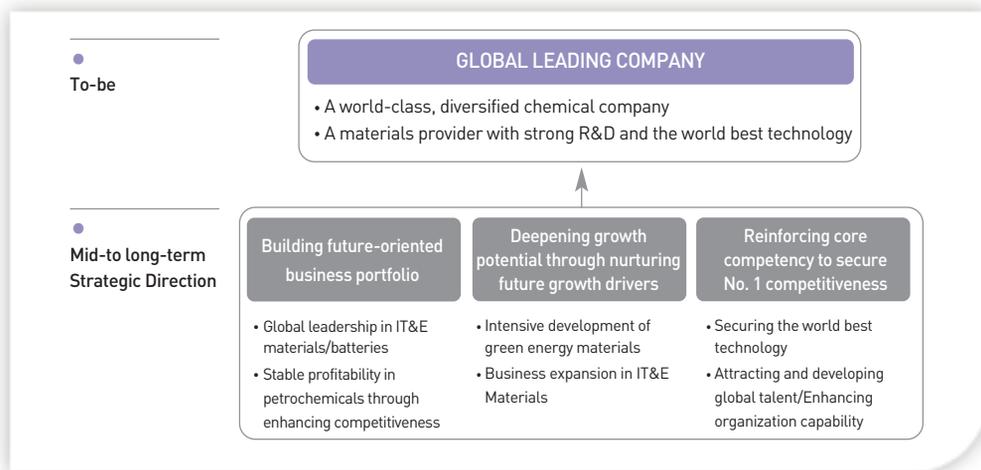
Enabled by our unique metallocene catalyst and polymer technology, this multi-purpose product offers a wide scope of application with its improved physical properties, unrivalled by general purpose products.

# Business Strategy and Performance

## ECONOMY

LG Chem aspires to become a 'Global Leading Company' by following three strategic directions- building future-oriented business portfolio, deepening growth potential through nurturing future growth drivers, and reinforcing core competency to secure No. 1 competitiveness.

### OUR MID-TO LONG-TERM STRATEGY FOR NO. 1 LG



Strategy Meeting, Optical Material Division

LG Chem strives to emerge as 'Global No.1' that capably competes with global companies and continuously generates outstanding performance. We dream of becoming a Global No.1 chemical company with highly profitable and promising business portfolio and the best technology in each of its business areas, growing together with global top-tier customers. To that end, LG Chem has laid a basis for creating stable profitability through sharpening competitiveness in petrochemicals area, while focusing on nurturing IT&E materials and batteries, and developing future growth drivers to build a 'Future-Oriented Business Portfolio'. Moreover, we are continuing with our effort to obtain 'World Best Technology' that enables us to secure the best product quality with lower cost than competitors.

We are also making dedicated effort to cultivate 'Global Talent', capable of carrying out our global business with excellence, by discovering and reinforcing strengths in each individual and embedding the LG Way and Speed Management in their work. LG Chem aims at establishing a future-oriented business portfolio and securing the best technology and top talent to take a leap towards a 'Global Leading Company'.

### ECONOMIC PERFORMANCE

The year 2009 was a time of confusion with severe economic recession along with various stimulus packages of major countries in the aftermath of the global financial turmoil. LG Chem, despite high uncertainties in the business landscape, built a platform for profitable growth through Speed Management initiatives, aimed at maximizing competitiveness in our existing businesses and realigning our business structure, while channeling energy into exploring future growth drivers. On top of these internal efforts, a favorable turn in external environment, including a weak Won currency, China's economic stimulus package and steady rise in oil prices, also had a positive impact on our business performance.

## Executive Summary

(KRW billion)

| Category                         | 2006    | 2007    | 2008     | 2009     |
|----------------------------------|---------|---------|----------|----------|
| Revenue                          | 7,224.9 | 8,899.6 | 12,645.0 | 13,694.5 |
| Operating income                 | 215.6   | 662.3   | 1,344.3  | 1,944.8  |
| Income from continuing operation | 196.7   | 621.4   | 945.8    | 1,539.7  |
| Net income                       | 316.0   | 686.2   | 1,002.6  | 1,507.1  |



Performance Generation Activity  
at Yeosu Plant

## Business Performance in 2009

In 2009, we delivered highest ever bottom-line and top-line performance in our history. Based on HQ figures, we recorded KRW 13 trillion and 694.5 billion in sales revenue, or 8.3% increase year-on-year, posted KRW 1 trillion and 944.8 billion in operating income, or approximately 44.7% growth on-year, and marked KRW 1 trillion and 507.1 billion in net income, which is 50.3% jump from the previous year.

## Performance by Business Area

### Petrochemicals

Our business underwent a turnaround in 2009 as prices rebounded from a surge in demand. In other words, demand picked up for chemical products from construction and home appliance industries, the main beneficiaries of pump-priming policies at major economies including China. Also, demand went up to replenish stocks that fast went short at the end of last year. We achieved quite strong results through portfolio diversification of profitable products, ranging from basic raw materials such as ethylene and propylene to ABS<sup>4)</sup>, PVC, acryl, synthetic rubber, oxo-alcohol and specialty products.

Our NCC/PO business is moving to secure competitiveness in cost, mainly attributable to our cost saving drive and stronger bargaining power gained from bulk purchasing of raw materials. The oxo-alcohol business continues to generate profit against a supply shortage in the market, and the synthetic rubber business enjoys higher earnings from a rising demand in the car market such as China and India, and strong prices in natural rubbers.

### ▼ Stability Index ▼

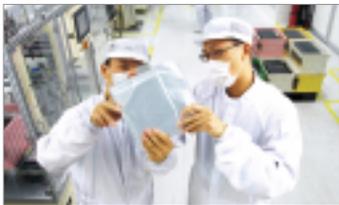
| Category                     | 2006  | 2007  | 2008  | 2009  |
|------------------------------|-------|-------|-------|-------|
| Current ratio (%)            | 104.1 | 141.0 | 153.4 | 161.5 |
| Debt-to-equity ratio (%)     | 121.3 | 81.8  | 64.4  | 52.4  |
| Dependency on borrowings (%) | 27.3  | 19.3  | 17.4  | 10.3  |

### ▼ Profitability Index ▼

| Category                    | 2006 | 2007 | 2008 | 2009 |
|-----------------------------|------|------|------|------|
| Operating income margin (%) | 2.9  | 7.4  | 10.6 | 14.2 |
| Net income margin (%)       | 4.2  | 7.7  | 7.9  | 11.0 |
| ROA (%)                     | 5.5  | 10.7 | 13.9 | 30.7 |
| ROE (%)                     | 12.5 | 21.1 | 24.5 | 19.0 |

### ▼ Growth Index ▼

| Category                    | 2006  | 2007  | 2008  | 2009 |
|-----------------------------|-------|-------|-------|------|
| Sales growth (%)            | 2.9   | 23.2  | 42.1  | 8.3  |
| Operating income growth (%) | 12.7  | 207.2 | 103.0 | 44.7 |
| Net income growth (%)       | -21.7 | 117.2 | 46.1  | 50.3 |
| Total assets growth (%)     | 3.8   | 21.4  | 14.0  | 4.0  |

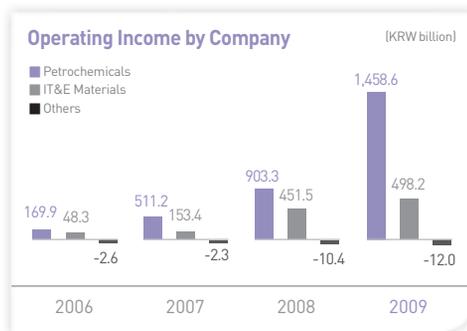
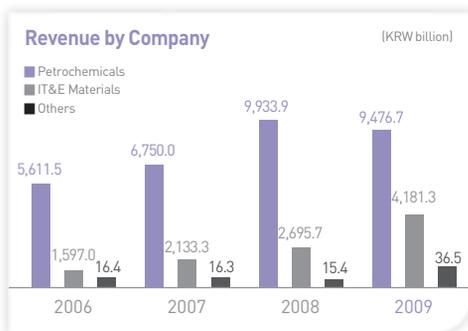
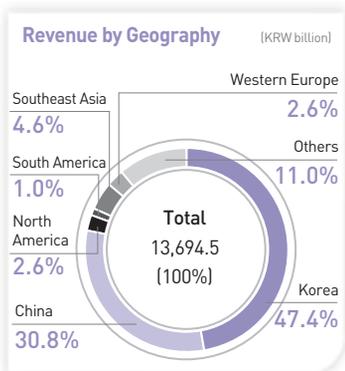


Battery Production Line for Electric Vehicles

### IT&E Materials

Profitability grew for mobile energy business as it continued to develop its key global customer base and implemented a number of production innovation initiatives including feedstock internalization and stabilization. We expect a steady improvement in performance going forward as well, through increased supply volume to key clients (HP, Nokia), productivity enhancement and cost saving drive. Based on advanced technical know-how, we are bracing for a hybrid vehicle mobile energy business, which will serve as a future growth driver for LG Chem.

In addition, the optical material business, represented by polarizers and photo-resist materials, achieved remarkable growth and profit, backed by a full-fledged growth in demand for the LCDs and internal cost reduction efforts. A downward pressure on price will continue to come from upstream players, but we will continue to perform strongly on the back of a recovery in the LCD industry and shipment growth to key customers. We are ready to improve our bottom-line continuously through our consistent drive for innovation.



### Distribution of Economic Value

#### Dividend

LG Chem takes a holistic view of the size of the profit, funding plans for future growth and soundness in the financial structure when determining dividend payout, recognizing dividend as a basic form of returning profit to the shareholders.

For fiscal year 2009, we declared a dividend of KRW 3,500 per common stock (70% vis-à-vis par value), up KRW 1,000 from 2008 (40% increase year-on-year) and KRW 3,550 per preferred stock (71% vis-à-vis par value), also up KRW 1,000 from 2008 (39% increase year-on-year). Dividend payouts factored into 2009 business performance as well as future CAPEX needs for building business competitiveness and further growth in the future. With a commitment to delivering sustained shareholder value, we will maintain a dividend policy that can bring improvement to internal financial structure yet meet shareholder demands for dividend, through honing our competitive edge in key businesses and creating a stable stream of profit.

#### Interest Expense

We spent interest expense of KRW 32.7 billion, a drop of KRW 6.5 billion from KRW 39.2 billion recorded in 2008. Such reduction in expense was brought about by our low dependency on borrowings, from 17.4% to 10.3%, due to stronger cash flow from improved business performance.

## ▼ Dividend ▼

| Category                      | 2006  | 2007  | 2008    | 2009    |
|-------------------------------|-------|-------|---------|---------|
| Net income (KRW billion)      | 316.0 | 686.2 | 1,002.6 | 1,507.1 |
| Earnings per share (KRW)      | 4,354 | 9,264 | 12,022  | 19,827  |
| Dividend ratio (Par value, %) | 20    | 40    | 50      | 70      |
| Total dividend (KRW billion)  | 72.9  | 167.0 | 209.2   | 257.8   |
| Dividend payout (%)           | 23.1  | 24.3  | 20.9    | 17.1    |
| Dividend yield (%)            | 2.3   | 2.2   | 3.5     | 1.5     |

## ▼ Purchasing Cost ▼

(KRW million)

| Business Company | Type of purchase     | Items                 | Application  | Amount ('09) | Ratio (%) | Remarks (supplier)             |
|------------------|----------------------|-----------------------|--|--------------|-----------|--------------------------------|
| Petrochemicals   | Raw materials        | Naphtha, EDC, benzene | Feedstock for PVC/PE, plasticizers, acrylic, ABS, PS | 5,234,821    | 68.7%     | GS Caltex/<br>OXY/<br>DOW CHEM |
| IT&E Materials   | Raw materials        | TAC, PVA              | Ingredients for polarizers                           | 2,304,206    | 30.3%     | Fuji, etc.                     |
| Others           | Subsidiary materials | Antioxidants          | Improvement in product physical properties           | 76,621       | 1.0%      | Others                         |
| Total            |                      |                       |  | 7,615,648    | 100%      |                                |

## ▼ Labor Cost ▼

(KRW million)

| 2006                 |                          | 2007                 |                          | 2008                 |                          | 2009                 |                          |
|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|
| Total annual payroll | Total payroll per capita | Total annual payroll | Total payroll per capita | Total annual payroll | Total payroll per capita | Total annual payroll | Total payroll per capita |
| 522,349              | 50                       | 616,665              | 57                       | 688,020              | 64                       | 512,233              | 62                       |

※ No discrimination on wage levels between men and women

## ▼ Donation ▼

(KRW million)

| Category          | 2006  | 2007  | 2008  | 2009   |
|-------------------|-------|-------|-------|--------|
| Charitable giving | 2,235 | 2,000 | 2,113 | 4,298  |
| HR development    | 1,585 | 950   | 1,118 | 1,258  |
| Community support | 2,693 | 5,251 | 5,531 | 5,589  |
| Total             | 6,513 | 8,201 | 8,762 | 11,145 |

## ▼ Corporate Income Taxes ▼

(KRW million)

| Category                                       | 2006   | 2007    | 2008    | 2009    |
|--|--------|---------|---------|---------|
| Income tax expenses from continuing operations | 58,228 | 105,743 | 299,665 | 444,644 |

## STRATEGIC DIRECTION FOR 2010

We expect tough times ahead in 2010 owing to a combination of downside factors—an unfavorable turn in exchange rates, a limited boost from special demand in China and intensifying competition with global chemical players. Nevertheless, we remain committed to becoming the No.1 LG that can sustain performance excellence even in hard times. We aim to achieve this goal by setting ‘Challenging Targets’ and building on our experience of success. That is why in 2010, we plan to drive three Speed Management tasks of ‘No. 1 in Core Businesses’, ‘Customer Value Innovation’ and ‘Global Organizational Capability’.

### ■ No. 1 in Core Businesses

To reinforce our capability to create profit in petrochemicals business, we plan to focus on reducing feedstock and energy use to sharpen cost competitiveness and expanding premium grades in general-purpose products such as PE<sup>51</sup> and ABS. In addition, we will consistently look for new business opportunities in abroad regions possessing competitive feedstock and high market potentials. For IT&E materials business, we will internalize key raw materials for display material products and differentiate the quality to further solidify our dominant position in the global market, while concentrating on new business development in the display and lighting industry field. In particular, we aim to become a formidable leader in the global battery market by developing differentiated new materials and raising productivity earlier than competitors.

We also plan to channel all our competence including research capabilities into our future growth drivers so as to gain a powerful momentum for growth and secure market leadership early enough. On the automotive battery front, our plan is to add new customers to strengthen our customer base and establish a global production system. On top of that, we are going to continue to develop cost-effective, next-generation batteries to reinforce our position as the first mover in the market. For LCD glass substrate, we plan to first secure a stable production capability and expand the business in early stage to foster it as the global No. 1 business.

### ■ Customer Value Innovation

We pursue ‘World Best Technology’ that enables us to secure the best product quality with cost competitiveness, so that we can provide unique solutions to help our customers win.

Our endeavors will continue well into 2010 to bring distinctive value and satisfaction to our customers—by managing best-in-class energy unit in petrochemical business, and enhancing quality and innovating products in IT&E materials and batteries. We are set to achieve this goal by expanding our R&D resource and organization and expanding investment in R&D for the future.

### ■ Global Organizational Capability

Becoming the No.1 LG requires unique competence as a global organization. This need has thus driven LG Chem to continue to search and develop human capital while deepening a pool of talent equipped with global communication skills, capable of leading and aligning our business with global standards. Moreover, we emphasize a corporate culture of ingenuity and self-initiative to foster an enabling atmosphere for our employees—so that they can truly enjoy and immerse themselves in work to inspire creative ideas.

# Innovation Activities

## ECONOMY

Innovation drives competitiveness and sustainable growth. LG Chem focuses on Management Innovation, Technology Innovation and Customer Value Innovation to grow into a Global Leading Company.



Speed Management Initiative at Yeosu Inspection Team



Claim and Complain (C&C) Analysis Meeting

## MANAGEMENT INNOVATION

### Speed Management to Create Excellent Performance

Speed Management accelerates the execution of strategy and corporate culture transformation based on a market- and customer-oriented approach to achieve our vision of a Global Leading Company that delivers continued performance excellence. To that end, we will maintain a thorough focus in implementing Speed Management initiatives- 'No.1 in Core Business', 'Customer Value Innovation' and 'Global Organizational Capability'. (For more detailed information on Speed Management, please refer to page 13 in this report)

### Innovation Initiatives to Gain a Winning Edge

Our on-site innovation initiatives, such as Quality Control (QC)<sup>6)</sup> and Total Productive Maintenance (TPM)<sup>7)</sup> 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<sup>8)</sup> across organization to secure cost and product leadership in 1999, so that we could proactively and flexibly adapt to increasingly sophisticated and evolving customer needs. Our Six Sigma program brings in the best and the brightest from different areas of the company to solve problems. To further facilitate such innovation programs, we hold Best Practice Contest every year to share our innovation performance and recognize people for their efforts.

## TECHNOLOGY INNOVATION

### Winning through Technology

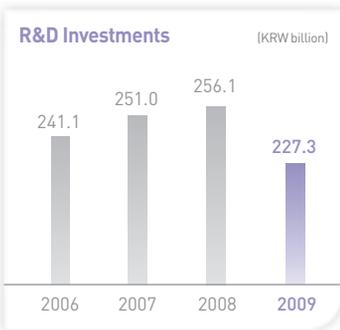
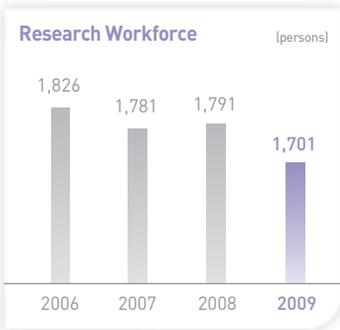
Our research and development aims to reinforce competitiveness in our existing business based on unique materials and technology, while building on that platform to create new businesses for the future. Our business structure, which was originally centered on petrochemicals and industrial materials, has diversified to IT&E materials, such as polarizers and rechargeable batteries, where R&D provided a needed thrust for the business from the late 1990s. In 2009, we were acknowledged as a global energy materials leader for successfully developing medium-and large-sized rechargeable batteries for electric vehicle application, capitalizing on our technology in rechargeable batteries. Through our consistent drive in R&D, we are stepping up our effort to bring tangible results in environmental and bio-engineering as well as green energy. As of the end of 2009, there are total 1,701 researcher and developers, with KRW 227.3 billion in investment executed for R&D during that year alone. The R&D spending has come down from 2008, but the reduction is attributed to the spin-off of the Industrial Materials Company in April 2009. LG Chem plans to allocate a large pool of researchers to developing our growth driver businesses, mainly, rechargeable batteries and medium-and large-sized batteries, to secure a winning technology in the battery material and manufacturing process.

### New Growth Drivers for the Future

To drive sustainable growth, LG Chem is channeling R&D resource into the eco-friendly, green energy sectors which possess the future growth potential. In 2009, we launched a medium-and large-sized



Medium-and Large-sized Battery



※ Reductions in R&D headcount and investment in 2009 area attributable to the Hausys spin-off in April 2009.



Groundbreaking Ceremony for LG Paju High-Tech Materials Complex

battery business line for hybrid electric vehicles (HEV), solar cell materials, and glass substrate business for LCD, used as core material in next-generation displays. In particular, medium-and large-sized batteries for HEVs, that started off as an extension from our rechargeable battery business, has been recognized for its superiority by local and foreign automobile makers, and thus is undergoing co-development. Joint development is underway for the solar cell materials to create synergy for the Group's solar cell business and improve modular efficiency through differentiated materials. In the new business areas, we are pursuing strategic alliance, joint ventures as well as outsourcing as part of open innovation. Since 2008, we have been running a 'Pioneer Research Group', comprising senior researchers within Research Park, to identify new R&D projects for the future. Here, diverse, stimulating project ideas are presented in different fields and are led by the researcher who initially proposes the idea.

**Medium-and Large-sized Batteries\_** Our drive for medium-and large-sized batteries set sail from 2005, built on our technical expertise in rechargeable batteries, and was duly recognized by our clients at home and abroad for excellence in performance. These large batteries, as a key component in hybrid electric vehicles, are our strategic effort to respond to a global move towards greener vehicles in the face of climate change and oil scarcity. As safety is important, LG Chem is tapping into our existing expertise in materials and production capability to develop safe, large-sized batteries, while identifying new customers and market opportunities through pulling in research, production and sales as a one team.

**Glass Substrate for LCD\_** Our polarizers and photo-resist devices, core materials for TFT LCD, have become globally competitive through consistent R&D efforts. We are now aiming to capitalize on our core technology to develop LCD glass, the most important part/materials in LCD, through our focused R&D drive and constructing production lines so that we could offer total solutions to the customers. Through partnering with our customers in the development process, we aim to secure a global competitive edge in LCD glass business and shape the industry in the future.

## CUSTOMER VALUE INNOVATION

Our vision of 'Growing with Customers' guides our actions in delivering innovative 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 outset. 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 attain. Such customer insights can clearly direct 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 and manufacturing to technical service, are brought together as a one team to create greater value for customers. Such a 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.



Solution Partner Activities

Moreover, a wide variety of added services and troubleshooting solutions to meet diverse business needs of our customers are available. Our business companies interact directly with the customers to identify their current requirements as well as to explore latent needs.

### ■ Solution Partner Activities

Our customer value innovation is driven by our strong pursuit of 'Solution Partner Activities'. They are designed to capture current business needs of the customers and combine products, service and knowledge together as an integrated value offering. The Solution Partner Activities are targeted at discovering solutions for our customers, enhancing their performance, and promoting growth for both LG Chem and the customers. As part of such Solution Partner Activities in 2009, we embarked on 42 projects for our key customers by each business company. The projects contributed to product development, productivity enhancement and cost innovation of our customers, resulting in their revenue growth of KRW 210 billion.



Research firm for 2009: Hankook Research  
 Our customer satisfaction index has continued to improve since 2006, through Solution Partner Activities and product differentiation based on 'World Best Technology'.

### Case Examples of Solution Partner Activities

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



#### Customer's Problem

The existing high-glossy materials our customers used had a high defect ratio during product forming and often damaged mold surface, hence driving up cost. Moreover, the existing production process had productivity issues, as the molds would have to be heated and cooled again to gain a glossy effect.



#### Solution Partner Activity

LG Chem, after countless experiments and trials and errors, finally succeeded in developing a new high-glossy material with a lower defect ratio, returning cost saving benefits to the customers. To increase the speed of production, we developed a new engineering method for achieving a glossy effect, thereby resulting in enhanced productivity and lower cost of goods sold for the customer.

- A case example: Building a growth platform for our PVC pipe customer



#### Customer's Problem

Our customer in the PVC pipe business was suffering from a low margin against their peers in the market because of a general preference in the market for cost over quality. As their products were mostly used for construction, they had to compete with lower-cost, recycled powders, with much pressure on quality and price.



#### Solution Partner Activity

We were 'early' in identifying growth prospects in the water and wastewater market and developed materials with superior quality to withstand water pressure, and supported the customers in broadening their business scope into high-quality, highly lucrative water pipe products. Our customer became the winner of the 2009 Presidential Award for Excellent Parts and Materials Technology as a result.

### ■ Customer Satisfaction Survey

LG Chem annually surveys and evaluates our customers on their satisfaction with our customer interface activities and reflects their voice into our business strategy and customer policy making. Customer seminars and other activities are carried out as well. The customer satisfaction survey is commissioned to a specialized research firm to ensure the objectivity and impartiality in the process.

**Revisions in Company Regulations**



\* Revision/registration of 1 regulation & 16 company instructions

**Customer Privacy Protection**

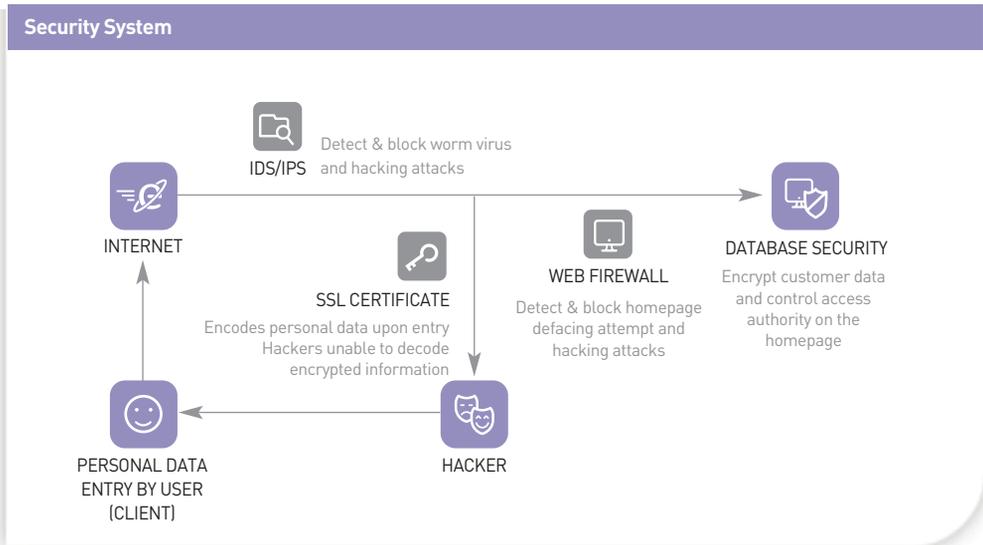
There has been a rising concern over information security, as witnessed by frequent leakages of personal data from service providers who handle confidential information of customers. Against this backdrop, LG Chem is implementing strong technical and administrative actions to safeguard personal information of our customers collected both online and offline.

Our Information Security Instruction underwent revisions twice in 2006 and 2009, after its enactment in 2003 in order to better ensure regulatory compliance and systematic responsiveness. We are training our employees to focus on prevention by enhancing their awareness on information security.

Furthermore, we have implemented additional database security solutions to make our security system more robust, along with diagnosis to identify our weaknesses so that any unauthorized attempt to access personal data can be preemptively blocked at its source.

**Information Security Training**

| Description     | Target                  | Subjects  | Frequency       |
|-----------------|-------------------------|---|-----------------|
| Online training | Everyone                | Information security policy/ scope of control/case examples | Annual          |
|                 | New hires               | Information security policy/ system/scope                   | As needed basis |
| Group training  | Key system employees    | Weakness analysis/ countermeasures                          | Two times/year  |
|                 | Site-specific employees | Issues and case examples                                    | Annual          |



# Product Liability

## ECONOMY

Dedicated to delivering only the best of products for our customers, LG Chem is doing everything it can to enhance safety features and environmental sustainability of our products in all stages from product development to customer service.

## PRODUCT SAFETY

The most fundamental responsibility that a company has is to ensure safe products for customers. We do the best we can to enhance safety and reliability in all stages from product development to customer service. We take a proactive approach towards product liability (PL) through product liability prevention (PLP)<sup>9)</sup> activities as well as a reactive approach to conduct root cause analysis and preventive measures through product liability defense (PLD)<sup>10)</sup> should a PL claim is received. Such efforts go a long way towards establishing a systematic process that enables us to respond effectively to product safety requirements.

### Product Safety and Product Liability Monitoring

With enactment of the Product Liability Act, LG Chem has been monitoring all of our business companies and sites every year to ensure product safety and liability. Selected, key products from business companies and divisions along with relevant plants get tracked for their implementation of Product Safety Management System (PSMS)<sup>11)</sup>, and more meticulous monitoring is carried out on new businesses, products and plants.

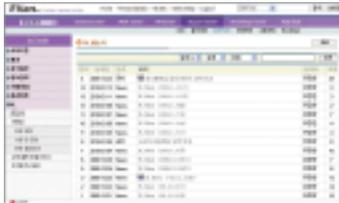
Results of the monitoring get feed-backed to relevant process owners, who then forge subsequent actions plans for product development and manufacturing, with a view to produce safer products for our users.

### Training Support

Our employees at the headquarter, plants and Research Park are trained on product safety (PS) and product liability (PL) on an on-going basis. We commission the external body to deliver training courses on PS and PL throughout the year.

### Enhancing Information Access through PL Site

The PL Site was set up in January 2002, before the Product Liability Act took effect, to share the latest information on product liability and safety across the organization. The PL Site is largely categorized into bulletin, data archive on relevant acts (cases and precedents, references), PL claim status, and guide categories. Up-to-date information is offered on the bulletin, including policy developments of the government and consumer advocacy groups, latest domestic and global news and our company initiatives. Some 137 entries of references were provided in 2009 and we now run an enhanced system through a website renewal, done in December 2009 to ensure the quality of information provided.



PL Site



Integrated Website for PL Regulations & Reference Information



PL Insurance Policy for Mobile Energy Division

**Risk Management through Product Liability Insurance**

LG Chem is preparing to manage the risks associated with PL claims by incorporating the coverage for product liability into our corporate Total Package Insurance. To assure product safety, we are taking an additional action for rechargeable batteries given the increasing interest in the products, by subscribing to a separate insurance on top of the corporate package insurance.

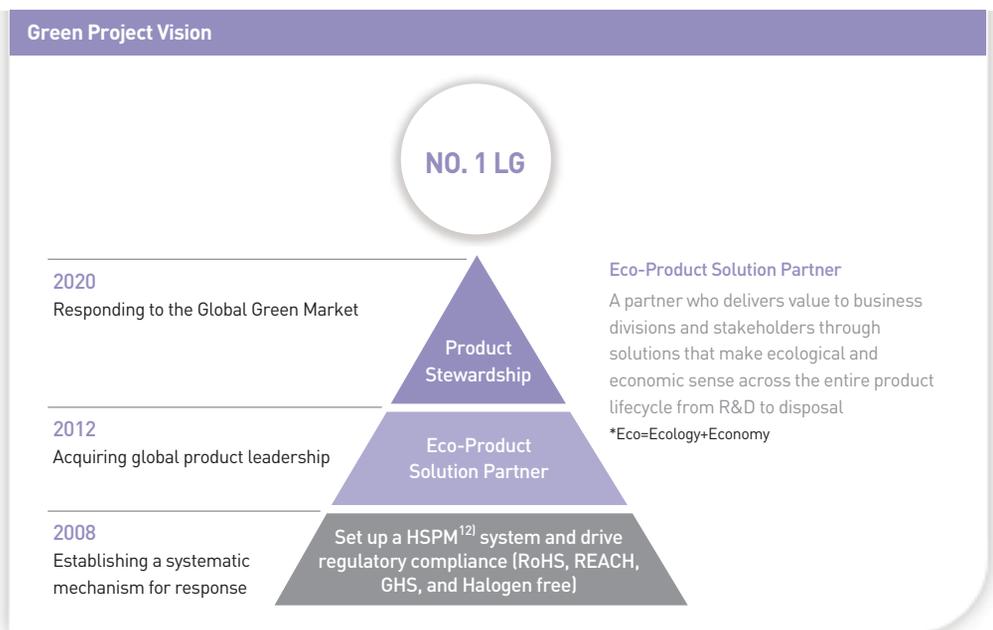
**Product Safety Review Practice**

Our commitment to product safety is well reflected in in-depth research on consumer behaviors and benchmarking, applying the best practice to our design and manufacturing process. We also produce warning labels and user manuals to ensure safe use of products. Our HQ, Research Park and plants undertake preliminary studies, potential risk analysis and assessments and formulate detailed corrective actions to deploy improvements horizontally across product development and production.

Our safety reviews on petrochemicals, IT&E materials and rechargeable batteries have become all the more rigorous to respond to the revised Consumer Basic Law and increased scrutiny from the media, government and consumer advocacy groups. In particular, we have tightened up our safety reviews on certain product groups that are directly used by the end customers, following stricter guidelines than required by external regulations. Our product catalogues, processing manuals, or warning labels for packages as well as user manuals undergo reviews and are updated as necessary. In addition, a special emphasis is placed on those new products coming from newly formed division. More exhaustive reviews on safety are performed compared to existing product lines via a close interface with relevant process owners.

**ENVIRONMENTAL STEWARDSHIP OF PRODUCTS**

We dream of becoming the No.1 LG with leadership in the global green market, maintaining a proactive approach to environmental stewardship of our products throughout their lifecycle.



**Design for Environment**

**Design for Environment (DfE)**

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**Direction of DfE**

- Improve resource recyclability
- Prohibit and reduce the use of regulated materials
- Minimize environmental impact

**Status**

- Internal code & guidelines on eco-product development
- Internal code & guidelines on Eco-SCM

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**Eco-Friendly Supplier Certification**

- Provide training on eco-friendly certification system (for suppliers)
- Provide training on green purchasing policy



Eco-Certification Guidelines

**Assessment on Environmental Sustainability in Products**

**LCA and Hazardous Materials Analysis**



Outcomes of LCA on Medium-and Large-sized Batteries

**Eco-Product Development**

LG Chem factors environmental friendliness into our entire product lifecycle to deliver greener products for all.

**Eco-Design Process**

Our eco-design process enables us to analyze and understand environmental impacts of our products throughout its entire lifecycle—from development, raw material purchase to production, use and disposal. We are making efforts to reduce the environmental load in the use phase by developing non-toxic, durable products as well as to improve reusability and recyclability in the disposal phase.

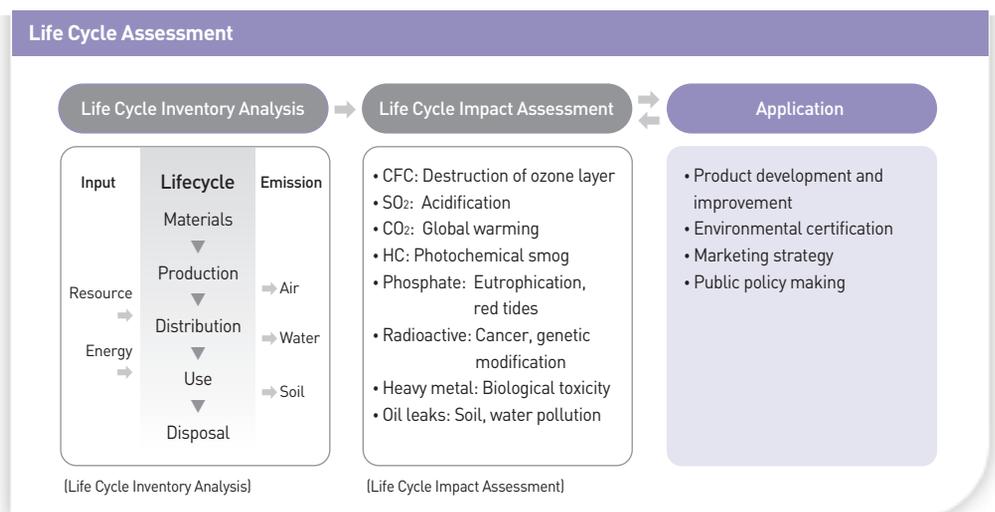
**Eco-Friendly Certification System**

We adopted a proactive approach in responding to product and environmental regulations at home and abroad including Restriction of Hazardous Substances Directive (RoHS) and Regulation on Registration, Evaluation, Authorisation and restriction of CHemicals. We drew up guidelines for an eco-friendly supply chain and put in place an eco-friendly certification system in 2006. Our focus is put on verifying whether hazardous materials are contained in the raw materials we source from our suppliers in advance, hence we request for component analyses and certificates of analysis on the raw materials from the suppliers, along with eco-friendly material supply contracts. 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 are sourcing new or replacing materials, thereby maintaining an effective response to stringent regulatory requirements. Moreover, we train and audit our business partners to minimize risks of hazardous materials getting into the products through supply chain.

**Assessment on Environmental Sustainability in Products**

**Life Cycle Assessment (LCA)<sup>13)</sup>**

With a view to improve environmental sustainability of our products, we quantify the input and output emission of resource, energy and pollutants in the lifecycle of a product through LCA, analyze and evaluate their impact on the environment.





A Certificate of Accreditation as KOLAS Authorized Testing Facility



TÜV Certificate for an Authorized Testing Body



Issuance of Certificate of Analysis



Issuance of TVOC Analysis Report

### Hazardous Materials Testing & Analysis

The Corporate R&D center at the LG Chem Research Park takes charge of analyzing hazardous materials in our raw materials and finished products to gauge the level of environmental soundness of our products. Our analysis and assessment activities are as follows.

|   |  |
|---|--|
| Operation of an ISO 17025 authorized testing laboratory | <ul style="list-style-type: none"> <li>• Analysis on six RoHS regulated materials (Cd, Pb, Hg, Cr(VI), PBBs/PBDs)</li> <li>• Analysis on halogen free (Br, Cl)</li> <li>• HBCDD, 3 types of phthalates (DBP/BBP/DEHP)</li> <li>• Additional analysis on regulated materials if requested by clients (non-RoHS heavy materials)</li> <li>• Number of certificates of analysis: 504 reports issued</li> </ul>  |
| TVOC assessments  | <ul style="list-style-type: none"> <li>• Assessment on TVOC and FA in materials, processes and products.</li> <li>Individual VOC study (P&amp;T, headspace, TD)                             <ul style="list-style-type: none"> <li>– Eco-product/material assessment: IT&amp;E materials/automobiles/building materials</li> </ul> </li> </ul>   |
| Accreditation as an authorized testing body             | <ul style="list-style-type: none"> <li>• Dec. 20, 2005 Accredited as KOLAS international testing facility-KSA17025, Cd testing standards</li> <li>• April 25, 2007 TÜV SÜD RoHS recognized lab-ISO/IEC 17025                             <ul style="list-style-type: none"> <li>Six hazardous RoHS materials (Cd, Pb, Hg, Cr(VI), PBBs/PBDs)</li> </ul> </li> <li>• May 1, 2008 TÜV SÜD scope extension-Halogen free (Br, Cl)</li> <li>• Sept. 2, 2009 KOLAS scope extension- Six hazardous RoHS materials</li> <li>• Aug. 1, 2009 TÜV scope extension-IEC62321_IS, HBCDD, 3 types of phthalates (DBP/BBP/DEHP)</li> </ul> |

### Eco-Products

We will stay committed to demonstrating visible performance as an environmental steward, with a sense of pride that green products bring positive impact to corporate value and show a new way of growth for the market and society.

📢 Our Eco-Products (Examples)

- **Bio-plastic of LG Chem: LUCLEN**  
 Leveraging our expertise in materials/processing technology, we have developed LUCLEN, bio-plastic based on PLA and are carrying out various development activities.
  - ▶ **Key application: Electrical, electronic, automotive, industrial materials and packaging**

- **Recycled-resin product: EPEAT ABS material (SE750)**  
 Using as feedstock the post-consumer recycled resin, retrieved from scrapped resin from end consumers, this product helps reduce crude oil use and carbon emission from manufacturing and treatment process.
  - ▶ **Key application: Monitor housings**
  - Carbon abatement effect of 1.37 tons per 1 ton of material
  - Less crude oil use by 520 liter
  - Equivalent to planting 497 trees a year

- Relevant customer: LG Household & Health Care Ltd.
- Product name: Beyond "Eco angel"
- Relevant grade: LUCLEN MN5400







A certificate verifying the recycled materials contained in SE750 products



Interview



**CEO, SUSTINVEST Young-Jae Ryu**

Harmony and “Jeong-Do” Management, the two values that LG Group has traditionally pursued throughout its history, is another representation of sustainability management, as they go in line with endeavors for ensuring human dignity, genuine partnership and above all, ethical practices. That is why I deem LG Chem as a company rooted on the fertile soil for cultivating sustainability in their business practice.

The vision statement of LG Chem, however, leaves some room for improvement as it has yet to fully incorporate the principles or the philosophy of sustainability. As for corporate governance, the restructuring of LG Group towards a holding company structure has addressed persistent problems associated with cross-shareholding, so commonly found amongst Korea’s conglomerates.

In 2009, LG Chem delivered extraordinary performance compared to competitors at both home and abroad, posting revenue growth of 8.3% year-on-year, EBIDTDA growth of 34%, but most of all, operating margin of 14.2%. It demonstrated its global leadership in rechargeable batteries industry as well, which is viewed as a next-generation, green energy business, when LG Chem became a sole supplier to General Motors in January 2009.

I am confident that LG Chem, given their corporate culture and system of sustainability backed by future-oriented, green products recently added to their product portfolio, is now transforming itself into a true benchmark in the industry for its best practice in sustainability management.

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# 03

## ENVIRONMENT

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50 \_ RESPONDING TO ENERGY AND CLIMATE CHANGE

54 \_ CHEMICALS MANAGEMENT AND RESPONDING TO REACH





# SEEKING THE TRUE JOY IN MOTHER NATURE

Green management is a way forward to proactively address climate change and minimize business impact from a changing energy landscape. That is why we are pressing ahead with greenhouse gas abatement and energy reduction as our top management priority at LG Chem.



## **Philosophy of Environmental Management**

Building our management philosophies of 'creating value for customers' and 'respecting human dignity', we have adopted environmental preservation as one of our top management agendas. We seek a healthy balance between the environment and business practices to make the world a sustainable place for all.

# Environmental Management

## ENVIRONMENT

Adopting environmental preservation as a key management task, LG Chem is seeking harmony between our business activities and the environment in an effort to practice environmental management that benefits nature and humanity.

## ENVIRONMENTAL VISION

### Philosophy of Environmental Management

#### Philosophy of Environmental Management

##### LG Management Charter- Section 4 of Article 1

LG maintains awareness and a perspective as a corporate citizen and commits itself to business practices that maintain and advance the free market economy, promote the growth of local communities and preserve the environment.

##### LG Code of Ethics- Section 4 of Chapter 6

LG strives to prevent environmental pollution and employs all measures necessary to conserve precious natural resources.

Building our management philosophies of 'creating value for customers' and 'respecting human dignity', we have adopted environmental preservation as one of our top management agendas. We seek a healthy balance between the environment and business practices to make the world a sustainable place for all.

### Environmental Management Policy

Our philosophy for environmental management serves as a cornerstone of our environmental policies, formulated at each business site to implement targeted environmental initiatives in a systematic manner.

## ENVIRONMENTAL MANAGEMENT STRATEGY

Our mid-to long-term strategies are designed to address environmental, safety and energy concerns. We have product-specific countermeasures in place to ensure compliance with stringent product-targeted environmental regulations such as REACH and other regulatory requirements in the developed markets, especially the EU. Recognizing the serious nature of global warming caused by greenhouse gases, with a consequent increase in weather abnormalities, we have formulated strategic initiatives and action plans to respond to the challenge in phases.

## ACTION PLAN

Under a declarative environmental goal established in 1995 for achieving 'Zero Pollutants Emission', we established 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 actions to lower emission of pollutants.

### Our Roadmap for Environmental Management

#### Phase 1: 1995-2001

- Set phase 1 goals
- Establish KPIs

#### Phase 2: 2002-2006

- Set & implement phase 2 goals
- Add mid-to long-term targets for energy saving

#### Phase 3: 2007-2012

#### Respond to climate change

- Build a response system
- Drive GHG abatement efforts
- Develop a business model

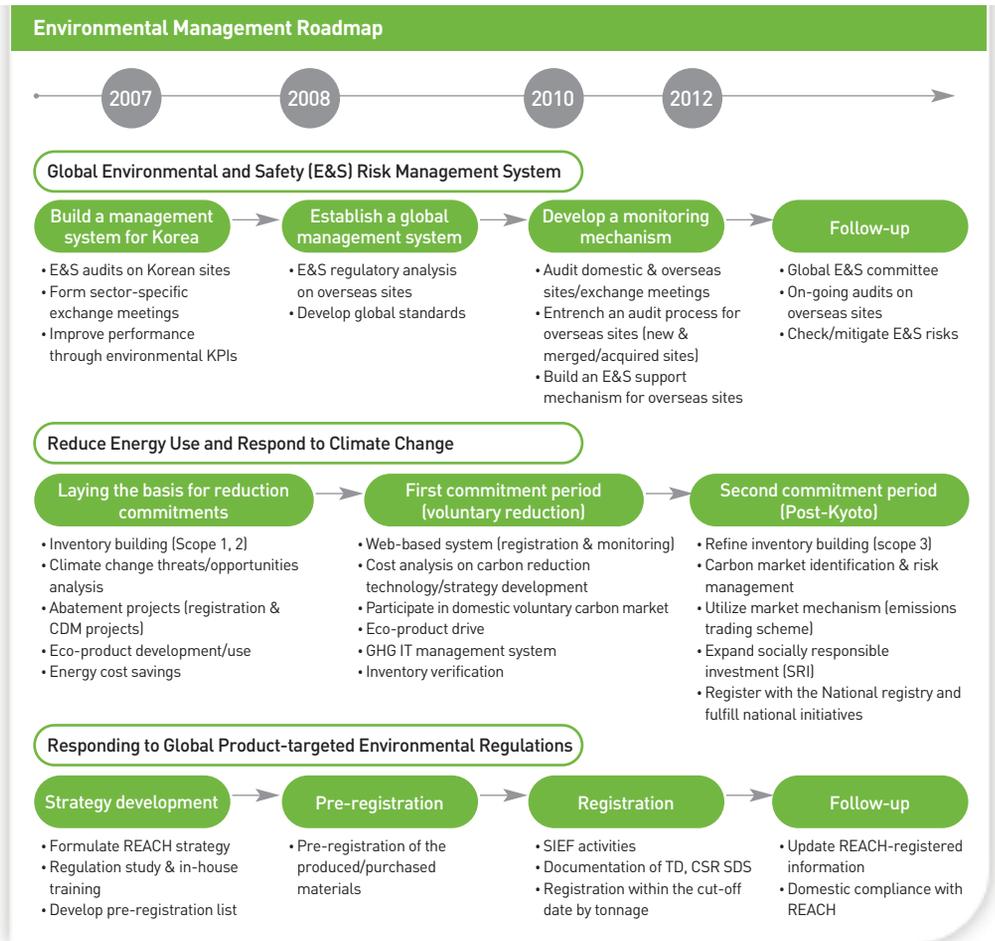
#### Respond to REACH & Produce eco-products

- Formulate REACH strategy
- Drive REACH pre-registration/registration
- Build global product competitiveness

#### Establish a global E&S risk management system

- Develop global E&S management standards
- Conduct audits & network meetings for our sites

To be a leading global company that tackles the environmental challenges head on, LG Chem introduced 3-phased master plans to ensure an organizational response for the Convention on Climate Change (CCC) 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.



**Criteria for Evaluating the Degree of Implementation in Environment, Safety and Health-Yeosu Plant**

| Goal                    | Target                         | Weight (%) |
|-------------------------|--------------------------------|------------|
| E&S accident prevention | Total accidents                | 20         |
|                         | External findings              | 10         |
| Regulatory compliance   | Corrective actions implemented | 15         |
|                         | Implementation                 | 15         |
| Pollutants reduction    | TRI emission intensity         | 10         |
| Employee involvement    | Mileage                        | 20         |
| Overall evaluation      |                                | 10         |

**ENVIRONMENTAL PERFORMANCE EVALUATION**

Guided by our strategy for environmental management, we develop environmental matrixes specific to each business site to identify overall performance in their environmental management and link them to team evaluation for motivation. Our Yeosu plant calculates their degree of implementation in environmental, safety and health management. Each year, the plant sets targets, measures the progress and uses the data as an input for team and plant MBO<sup>14)</sup> evaluation. The Ochang Techno Park has set up environmental KPIs for gauging operational performance, environmental management and risk responsiveness, with annual targets established to systematically manage the performance.

**Responsible Care (RC) Committee**

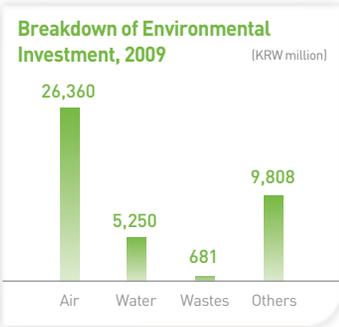
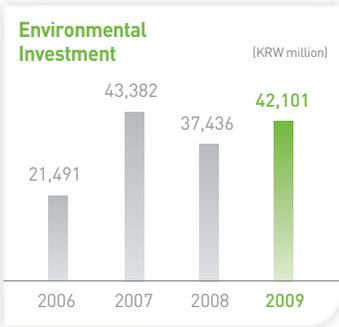


**RESPONSIBLE CARE (RC)<sup>15)</sup>**

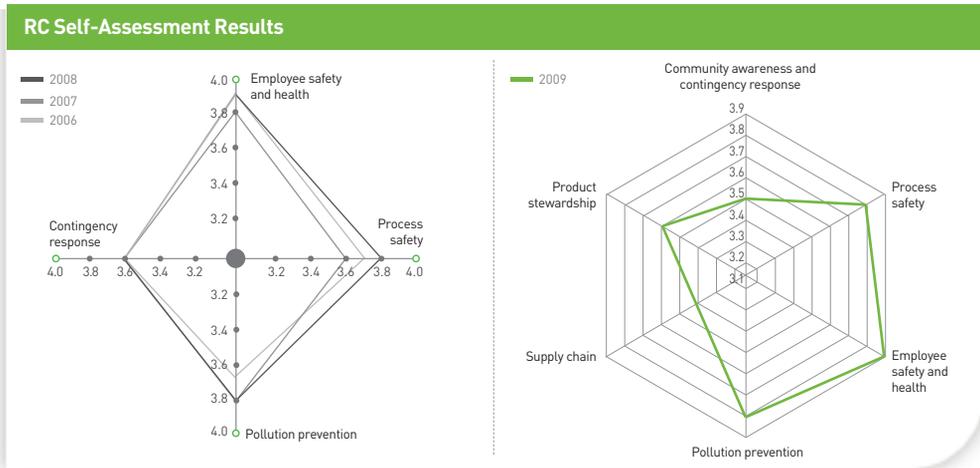
In 1991, LG Chem launched the 'Environment & Safety Committee' to manage our business holistically, merging customers, business and the environment together, and is now aggressively driving Responsible Care across organization to raise awareness for environmental and safety (E&S) management amongst our people. We have brought activities of the Environment & Safety Committee into 'Responsible Care (RC) Committee' that engages representatives from our business sites, business companies and support functions in discussing E&S agenda. 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. They are responsible for devising key policies on environment, safety, health and energy, analyzing and assessing RC performance, and sharing relevant concerns, information and best practices.

**▼ Responsible Care Activities ▼**

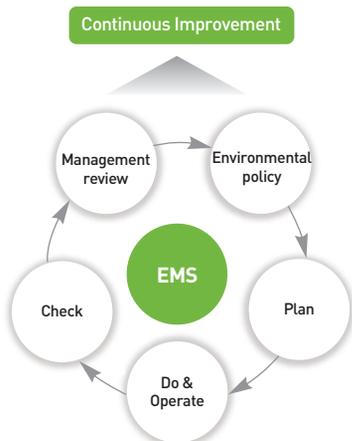
| Committee                  | Activities  |
|----------------------------|---|
| Plant RC Committee         | Discuss key issues in E&S, review and approve preventive actions, finalize action plans for commonly-applicable E&S, review introduction of best practices  |
| Site-Level RC Committee    | Discuss site-specific issues in E&S (goals and direction, performance and plans, events/safe work procedures/voluntary controls)<br>Discuss problems and improvement areas for facilities, share information and implement practices confirmed by RC Committee, give consideration to other E&S-related proposals and improvement |
| Working-Level RC Committee | Develop action plans for common issues at sites, collect input on E&S, discuss support for E&S including accident prevention, trends analysis and information delivery  |



In 2009, we expanded the number of RC codes to six from the initial four, comprising employee safety and health, process safety, pollution prevention and contingency response. We added 'community awareness' to contingency response code to cover a wider scope, and introduced two new items, namely, 'supply chain' and 'product stewardship'. Conformity and implementation effectiveness in RC requirements are assessed against site-specific criteria and the results are used to drive continual improvement. The self-assessment scores for 2009 ranged from 3.4 to 3.9 points. Supply chain, community awareness, and contingency response were evaluated as IA (Implementing Action plan)<sup>16)</sup> while other codes were in the PP (practice-in-place)<sup>17)</sup> stage.



**The Flow of Environmental Management System (EMS)**



**Responsible Care**

- ISO 14001
- OHSAS 18001
- Voluntary Agreement (VA)
- Environmentally Friendly Enterprise
- KOSHA 18001



Corrective action monitoring system for non-conformances issued from internal/external audits

**Environmental Training System**



**ENVIRONMENTAL MANAGEMENT CERTIFICATION**

LG Chem is certified to ISO 14001<sup>18)</sup> and OHSAS 18001<sup>19)</sup>/KOSHA 18001<sup>20)</sup>, and designated as Environmentally Friendly Company (Ministry of Environment). In addition, we are seeking continuous improvement across environment, safety, health and energy through Voluntary Agreement (VA) initiatives. E&S Teams at business sites institute and implement internal E&S regulations, while functional owners monitor compliance to environmental laws. Furthermore, we have an audit system, both internal and external, to check for our conformity to regulations and work on our weak points for improvement.

▼ **Certification/Designation for Environment and Safety Management** ▼

| Description | Standards                           | Date of Acquisition | Description | Standards                           | Date of Acquisition |
|-------------|-------------------------------------|---------------------|-------------|-------------------------------------|---------------------|
| Yeosu       | ISO 14001                           | Dec. 1996           | Naju        | ISO 14001                           | Aug. 1997           |
|             | OHSAS 18001                         | Dec. 2000           |             | KOSHA 18001                         | Sept. 2000          |
|             | Environmentally Friendly Enterprise | Dec. 1995           |             | Environmentally Friendly Enterprise | April 1998          |
| Cheongju    | ISO 14001                           | Nov. 1999           | Iksan       | ISO 14001                           | Dec. 2004           |
|             | OHSAS 18001                         | Dec. 1999           |             | OHSAS 18001                         | Nov. 2001           |
|             | Environmentally Friendly Enterprise | Dec. 1995           |             | Environmentally Friendly Enterprise | May 1996            |
| Ochang      | ISO 14001                           | Nov. 2004           | Daesan      | ISO 14001                           | May 2006            |
|             | OHSAS 18001                         | Nov. 2004           |             | ISO 14001                           | Sept. 2005          |
|             | Environmentally Friendly Enterprise | Dec. 2006           |             | (Research Park) K-OHSMS 18001       | Nov. 2006           |
| Ulsan       | ISO 14001                           | Dec. 1996           | Gimcheon    | ISO 14001                           | Oct. 2008           |
|             | KOSHA 18001                         | Nov. 2000           |             | OHSAS 18001                         | Oct. 2008           |
|             | Environmentally Friendly Enterprise | Dec. 1995           |             |                                     |                     |

**ENVIRONMENTAL TRAINING**

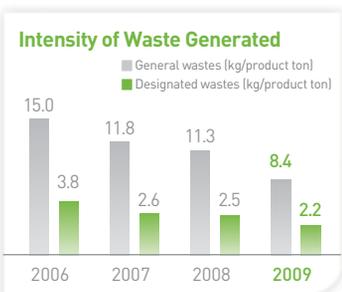
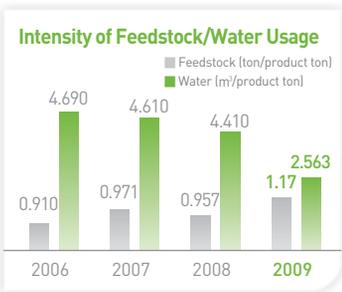
Our business sites identify their respective needs for training, establish and implement annual training plans for employees and business partners.

▼ **Ochang Techno Park** ▼

| Course              | Trainees        | Hours/Frequency              | Course Description  |
|---------------------|-----------------|------------------------------|---|
| Introductory course | New employees   | 8 hrs/upon recruitment       | Importance of environmental preservation, Ochang site's environmental policy                                    |
| Basic course        | All employees   | 2 hrs/month                  | Customized departmental education   |
| Job-specific course | Job transferees | Before undertaking a new job | Environmental education as it relates to the given job  |
| Advanced course     | Site managers   | When needed                  | Instructions on optimal operation of preventive equipment, prevention and management of environmental accidents |

▼ **Yeosu Plant** ▼

| Category            | Course   | Trainees  | Hours/Frequency   | Course Description  |
|---------------------|--|---|-------------------|---|
| In-house training   | Shift/daily duty training                                    | Shift/daily duty workers                            | 2 hrs/month       | How to remove risks and improve on-site safety before work                          |
|                     | Job transferee training                                      | Job transferees                                     | 2 hrs/each        | Work standards & MSDS   |
|                     | SHE new worker training                                      | New workers   | 8 hrs/each        | Understanding of SHE work and management system                                     |
|                     | Safety engineer training                                     | Safety engineers                                    | 4 hrs/each        | Specialized/common PSM instructions   |
| Collective training | Employee safety and health training                          | Supervisors and others                              | 2 hrs/each        | Annual SHE activity plan, knowledge building, case examples of accidents            |
| Suppliers           | Safety training for new suppliers & regular training support | Employees of the supplier newly coming to the plant | Daily & quarterly | Safety management regulations, evacuation tips, safety measures for each occupation |
| Drills              | Team-specific all-hands emergency drills                     | All employees                                       | Annual            | Evaluation of comprehensive emergency responsiveness                                |



## 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 and soil quality control.

### Resource/Recycling

LG Chem continues to reduce its resource use by preventing pollutions throughout the entire lifecycle, from raw material procurement to production, and reusing or recycling the wastes generated.

### Wastes

Our waste management policy is intended to secure cost leadership through continued value engineering exercise for managing waste, with a stress on safety. We are inducing voluntary waste reduction by encouraging teams to manage their goals and share performance in waste management. The entire process from waste discharge to treatment is checked online via Waste Manifest System (known as Allbaro)<sup>21)</sup>, a website operated by Korea Environment and Resources Corporation. Throughout the year, we audit and manage our waste treatment and recycling contractors to make sure that waste is treated in a proper and transparent manner, and carry out improvement activities to control waste at the source.

#### Site Improvement Initiatives on Waste

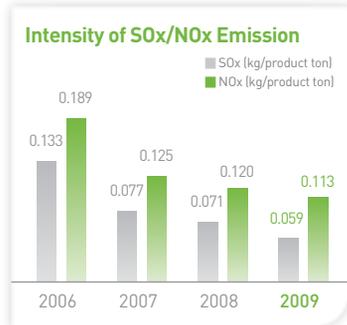
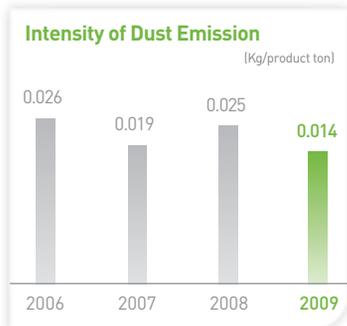
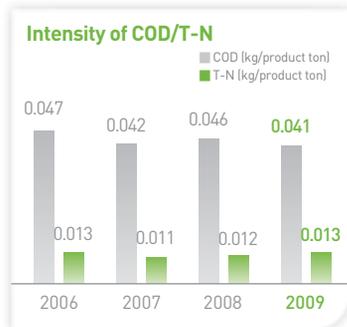
| Site   | Improvement Initiatives  | Investments (KRW million) | Impact  |
|--------|--|---------------------------|---|
| Daesan | Efficient operation of oxidation tanks (PH adjustment, ORP management) | -                         | 1,070 tons reduction, savings of KRW 62 million |
| Iksan  | Installation of a dedicate storage for efficient use of raw materials  | 79                        | Reduction in waste generation, 342 tons/year    |
| Yeosu  | Replacement of PCW powder collecting equipments                        | 50                        | Reduction in waste generation                   |
| Ochang | Installation of a waste storage station                                | 30                        | Facilitation of waste recycling                 |

### Water Quality

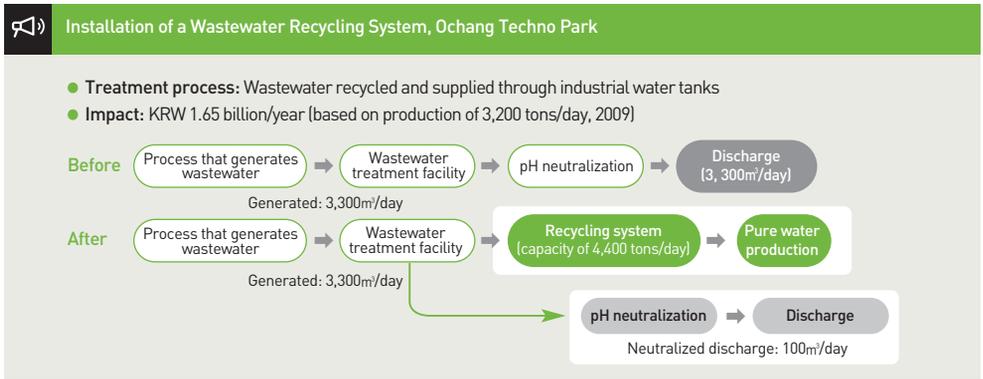
With a goal to reduce water pollutants, we apply control targets for water quality at our business sites and reinforce our monitoring efforts on increasingly stringent regulations. Wastewater from our sites goes through initial treatment at a water quality control facility at each site before being discharged to a nearby river or retreated in the wastewater treatment areas run by local autonomous bodies. We have also adopted a wastewater recycling process at the sites to reduce the amount of water used, thus generating less wastewater and water pollutants.

#### Improvement Initiatives for Water Quality

| Site     | Improvement Initiatives  | Investments (KRW million) | Impact  |
|----------|--|---------------------------|---|
| Daesan   | Installation of suspended solid filters and replacement of equipment   | 1,100                     | Accident prevention                           |
|          | Installation of a wastewater recycling system  | 980                       | Recycling capacity of 4,400 tons/day          |
| Ochang   | Installation of a RO for wastewater reuse  | 400                       | Recirculation of 200,000 tons wastewater/year |
|          | Capacity expansion for emergency wastewater collection   | 160                       | Stable discharge of wastewater                |
| Gimcheon | Installation of wastewater collecting tanks  | 620                       | Stable discharge of wastewater                |
| Yeosu    | Automation of compressed seal water substitution   | 30                        | Reduction of wastewater generation            |
| Daejeon  | Installation of CCTVs at wastewater treatment areas to do real-time monitoring on wastewater and prevent environmental accidents | 19                        | Accident prevention                           |



**Flow Chart for Soil Quality Management**



**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 using checklists to maintain the facilities in optimal conditions. We plan to continue with inspections to gauge the efficiency of existing preventive facilities and phase in more efficient, optimized machines to replace existing ones while checking and replacing aging machines. To prevent leakage of pollutants from non-point pollution sources, portable detectors are used to measure leakage and immediate repair or replacement work follow if problems are found.

**Improvement Initiatives for Air Quality**

| Site     | Improvement initiatives  | Investments (KRW million) | Impact   |
|----------|--|---------------------------|--|
| Yeosu    | Installation of nitrogen oxides reduction equipment from FBC & general-purpose boilers           | 3,780                     | Reduction in air pollutants generated                                  |
|          | Stabilization of RTO equipment with VOC fume scrubbers   | 103                       | Improvement in prevention efficiency                                   |
| Naju     | Improvement of scrubbers (odor-prevention equipment)   | 125                       | Enhancement in stench removal efficiency (70% → 90%)                   |
|          | In-house installation of a coating process RTO   | 768                       | Removal of volatile solvents and odor/ Improvement in work environment |
| Ochang   | Set-up of a NMP recovery process   | 9,172                     | Reduction in solvent discharge & introduction of a recovery system     |
|          | Installation of air pollution prevention equipment for cylinder-type machine #6                  | 88                        | Improvement in air quality   |
|          | Installation and replacement of bag-filters for improving dust removal efficiency                | 86                        | Improvement in air quality   |
| Cheongju | Improvement of the incinerator to comply with strengthened thresholds for air pollutant emission | 300                       | Reduction in air pollutants generated                                  |

**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 exhaustive reviews are performed with 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.

# Responding to Energy and Climate Change

## ENVIRONMENT

Green management is a way forward to proactively address climate change and minimize business impact from a changing energy landscape. That is why we are pressing ahead with greenhouse gas abatement and energy reduction as our top management priority at LG Chem.

## ENERGY

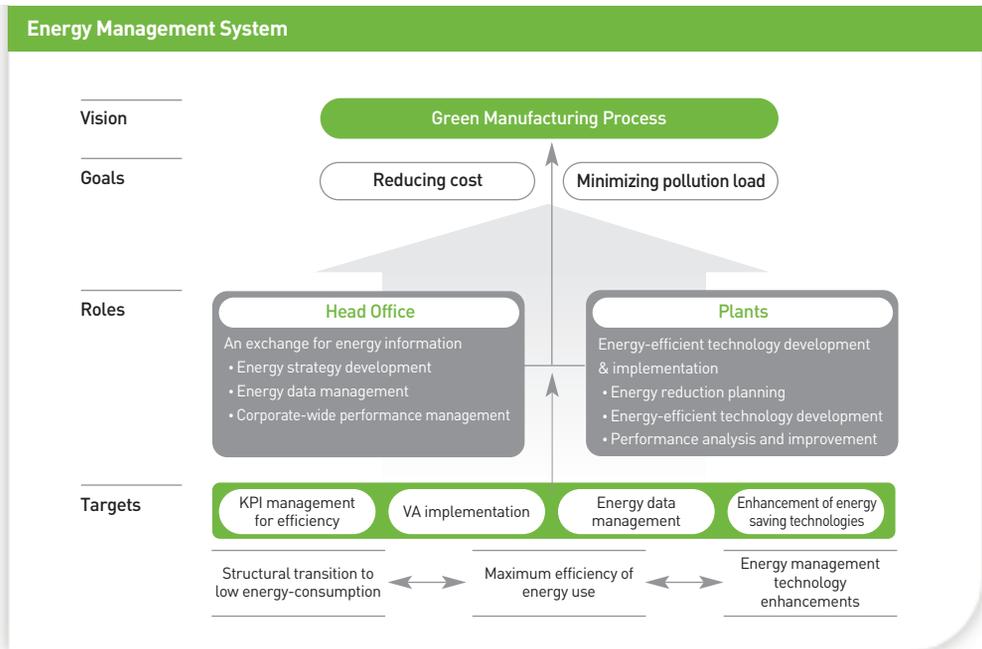
### Energy Vision

Our energy strategy is designed to build an environmentally sound production process through energy innovation, with a focus on the following three strategies - 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, over-achieving the target of KRW 63.7 billion by KRW 11.7 billion. Under the second-phase plan, we have cut our energy bill by KRW 261.2 billion by 2009. These energy savings were calculated based on the actual amount of savings achieved from energy reduction projects in a given year.

As part of energy saving programs, all our employees are engaged in an energy reduction campaign aimed at bringing process innovation at business sites, energy restructuring of business divisions and optimization through drawing involvement of support functions. To share success and motivate people towards energy reduction, our company holds sharing meetings towards the end of the year. We assess our progress in annual energy reduction efforts and roll out best practices in energy and cost innovation across all sites.

### Energy Reduction Programs

- P** **Process Innovation**
  - Production process innovation
  - Energy saving TFT
  - Energy-efficient climate
- R** **Restructuring**
  - Enhancement of product added values
  - Investment in new energy-efficient facilities
  - Transition to low-energy consuming products
- O** **Optimization Management**
  - Development of mid-to long-term energy plans
  - Technical support for energy saving
  - Efficiency enhancement of energy management



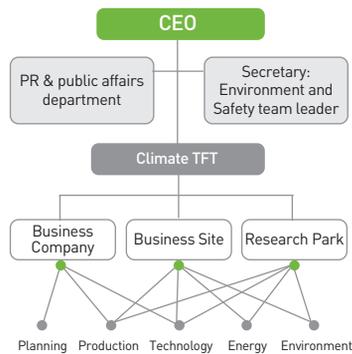


Energy Equipment Operation in the Control Room



Site Visit to Yeosu Industrial Complex by the Climate Change Forum

**Organization Chart for CCC**



\* One secretary selected for each business site, business company and sector

**Our Energy Use**

We set up annual energy reduction targets and mid-to long-term goals to minimize our use of energy. The total energy use in 2009 was 2,186,223 Ton of Oil Equivalent (TOE), with indirect energy sources representing 31% and direct sources taking up 69% of the TOE.

**Trends in Energy Use**

| Description                  | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|
| Indirect energy source (TOE) | 596,356   | 654,899   | 652,301   | 677,274   |
| Direct energy source (TOE)   | 1,282,110 | 1,396,354 | 1,466,509 | 1,508,949 |
| Total                        | 1,878,466 | 2,051,253 | 2,118,810 | 2,186,223 |

**Energy Saving Projects and Deliverables**

Under our energy vision, we select energy innovation projects every year and follow up with monitoring activities, resulting in more than KRW 30 billion of saved energy per year. We utilize energy sharing meetings to share technological advancements and performances across our sites.

**Energy Innovation Projects, 2009**

| Business Site     | Project Name  |
|-------------------|---|
| Daesan NCC        | Fuel savings through furnace optimization   |
| Daesan BR         | Energy savings through stripper efficiency optimization   |
| Yeosu NCC         | Energy savings through optimum water treatment system   |
| Yeosu VCM         | Productivity enhancement through incineration process redesign  |
| Yeosu PVC         | Energy savings through installing latex concentration system  |
| Yeosu SBS         | Energy savings through solvent column liquids recovery  |
| Yeosu maintenance | Energy cost savings through replacing back-up boiler fuels and rationalizing demand & supply for steam brought in from external sources |

**RESPONDING TO THE CONVENTION ON CLIMATE CHANGE**

We are phasing in measures to respond to the Convention on Climate Change (CCC) and implementing greenhouse gas mitigation projects continuously to tackle the dual challenges of global warming and sustainability management.

**Organizational Structure for CCC**

The 'Climate TFT' has been in operation since December 2004. Placed under the Environment & Safety Team at head office, the Climate TFT comprises four personnel from the HQ and representatives from 10 business sites. Site representatives are charged with collecting, compiling and reporting information and data on GHG emission sources and emission activities at their plants along with developing greenhouse gas abatement projects, while the head office take responsibilities for global trend analysis, government interface, data collection, training and mid-to long-term strategy development.

**Greenhouse Gas Emissions**  
**(Verified & Certified by Third Party)**

| Source             | 2006      | 2007      | 2008      |
|--------------------|-----------|-----------|-----------|
| Direct emissions   | 3,738,365 | 4,065,412 | 3,826,332 |
| Indirect emissions | 1,297,653 | 1,463,215 | 1,495,769 |
| Total              | 5,036,018 | 5,528,627 | 5,322,101 |

(tCO<sub>2</sub>-eq)



Corporate Energy Committee



Certificate of GHG Inventory Verification, Yeosu NCC Plant



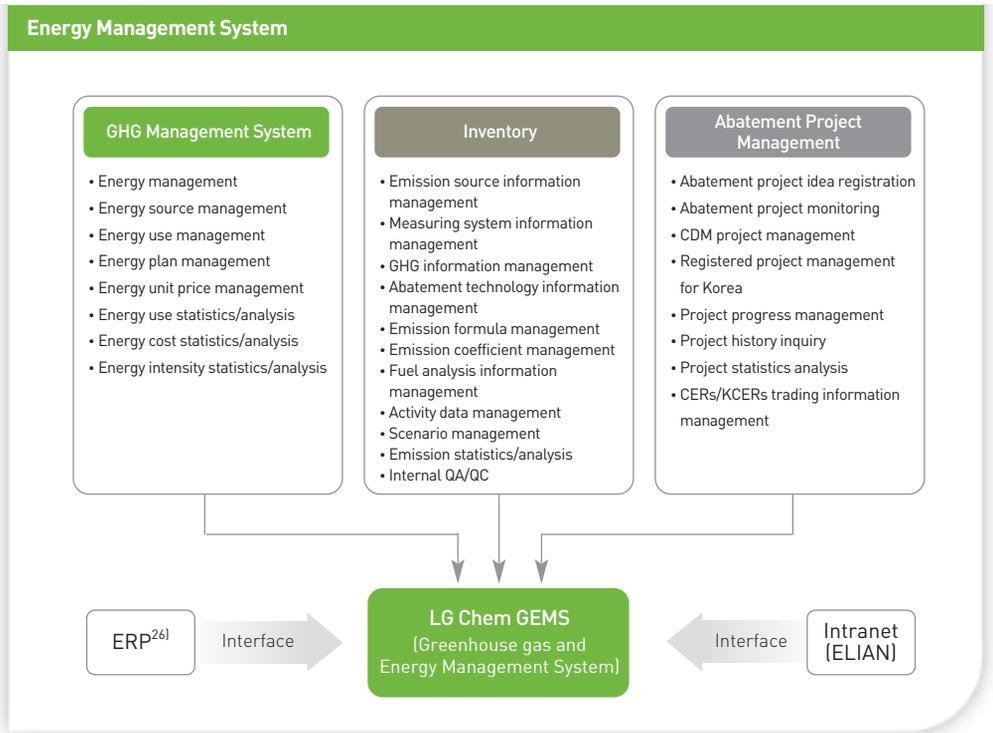
Certificate of GHG Inventory Verification, Iksan Plant

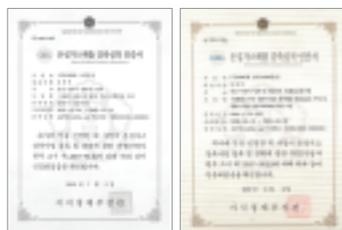
**Greenhouse Gas Management**

To lay a platform for responding to the Convention on Climate Change, LG Chem has phased in greenhouse gas inventory development, inventory verification and greenhouse gas management system. We finished our first phase of developing greenhouse gas inventory in 2005, and developed the inventories for the former LG Daesan Petrochemicals and LG Petrochemical in 2006 and 2007 after the merger. Greenhouse gas inventory contains direct emissions from fixed combustions facilities, transportation, manufacturing process and fugitive sources as well as indirect emissions from power and steam. The inventory is built on and managed with internationally credible data source such as the guidelines put forth by the Intergovernmental Panel on Climate Change (IPCC)<sup>23</sup> and GHG<sup>24</sup> protocol of the World Resource Institute (WRI).

We underwent independent, third-party verification and certification on our GHG inventories in phases from 2006 to 2009. Inventory verification and certification was completed for Cheongju and Ulsan plants in 2006, with Ochang Techno Park and Yeosu (VCM) plant following in 2007, by the GHG Certification Office under Korea Energy Management Corporation (KEMCO). By 2009, all of our plants in Korea have received inventory verification and certification from KEMCO and DNV<sup>25</sup>.

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





Certificates of GHG Emissions Reduction

### Greenhouse Gas Abatement Projects and Performance

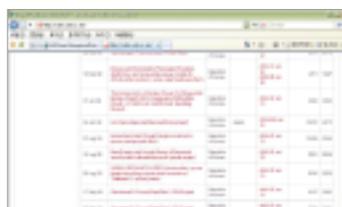
We carry out GHG abatement projects and register resulting emission reductions with the National Registry. The registered projects then get annually monitored and independently verified to be managed as certified emission reductions (CER). The Climate TFT at the head office work as a training and administrative secretariat for developing project design documents (PDD)<sup>27)</sup>. Process owners at each site are responsible for PDD development, validation, monitoring report writing and verification.

#### Projects Newly Registered in the Greenhouse Gas Registry, 2009

| Site      | Project   | Reductions registered (tCO <sub>2</sub> -eq) |
|-----------|---|--|
| Daesan    | MS steam production project driven by waste-heat recovery system improvement in dealkylation reaction process (HAD) | 8,039  |
|           | Steam savings project based on BRU-NCC heat exchange loop configuration   | 50,327                                       |
| Yeosu VCM | Network configuration project for EDC refinery process in VCM/CA production   | 5,327  |
| Yeosu SM  | Steam import project for power generation and waste-heat production based on waste incineration                     | 87,299                                       |

#### Registration Status at Greenhouse Gas Registry

| Description  | 2006    | 2007   | 2008    | 2009    | Total   |
|--|---------|--------|---------|---------|---------|
| Number of new registrations                                    | 7       | 7      | 3       | 4       | 21      |
| Reductions registered from new projects (tCO <sub>2</sub> -eq) | 109,691 | 73,800 | 46,647  | 150,992 | 381,130 |
| Certified emissions (tCO <sub>2</sub> -eq)                     | 0       | 91,752 | 156,677 | 193,157 | 441,586 |



UNFCCC CDM Registration Page

### CDM Project Registration

LG Chem implemented a Clean Development Mechanism (CDM) project, a registered greenhouse gas abatement project with the UN. We obtained national authorization for the 'Naju plant fuel switching project', pursued as Korea's first fuel switching project in the industrial sector and completed registration with the UN as of June 4, 2009.

### Pilot Implementation of In-house Emissions Trading

The global emissions trading market is growing at a rapid pace every year. Acknowledging a need to take internal measures to prepare LG Chem for the emerging low-carbon era, we signed a memorandum of understanding (MOU)<sup>28)</sup> with the Ministry of Knowledge Economy in February 2006 to set up an internal emissions trading system, and have since run an in-house emissions trading system over the last three years till 2009. The system is intended to help companies adapt themselves to local and global carbon trading markets and learn in advance the necessary skills for trading in the future.



In-house Emissions Trading, 2009

In 2009, we took a credit & incentive approach in trading our carbon credits internally across our sites, using the credits obtained from abatement projects. As a result, a total 210 abatement projects were registered, credits issued and traded after implementation levels were assessed and managed. From 2010 onwards, we are planning to set up a GHG inventory for our Chinese sites and seek third-party verification and certification.

# Chemicals Management and Responding to REACH

## ENVIRONMENT

With a goal to make our products more environmentally safe, LG Chem is focusing its effort on chemical substance management for all our product feedstock, while responding to REACH from a proactive standpoint.

### CHEMICALS MANAGEMENT

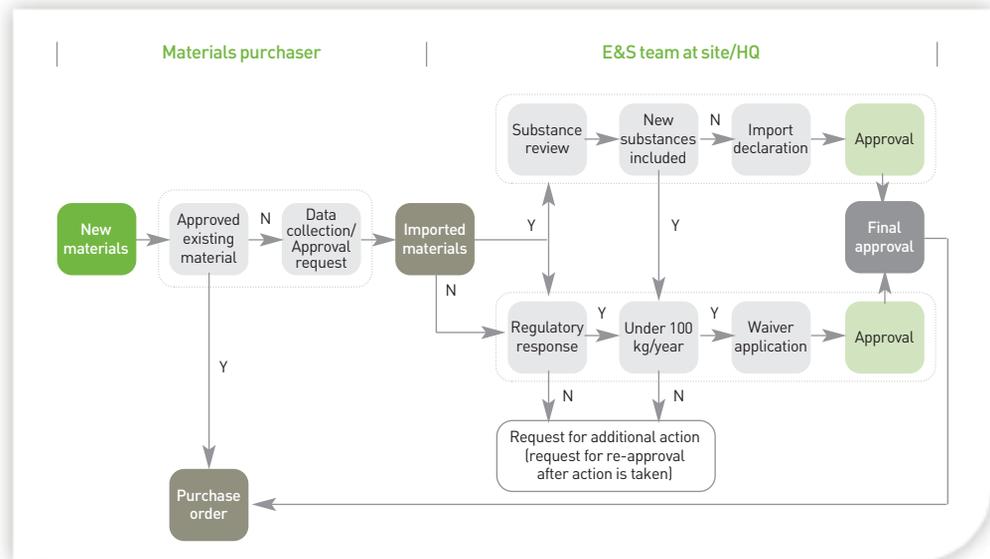
#### Ensuring Rigor in Managing Material Composition of Products and Feedstock

In an effort to embed environmental sensitivity in our products, LG Chem regularly verifies whether our products contain any hazardous substances and strictly controls those substances included in the feedstock. In 2008, we performed material substance survey on purchasing suppliers to our Petrochemicals Business Company, and will expand the scope of such survey to cover feedstock used for all of our products from 2010.

We undertake a detailed appraisal on product sustainability when we have to source new raw materials, e.g., for product development purposes. Before we place a purchase order, we first review whether harmful substances are contained as part of the raw material and verify to make sure that the suppliers comply with product and environmental regulations such as REACH and RoHS.



Chemical Substance Management System



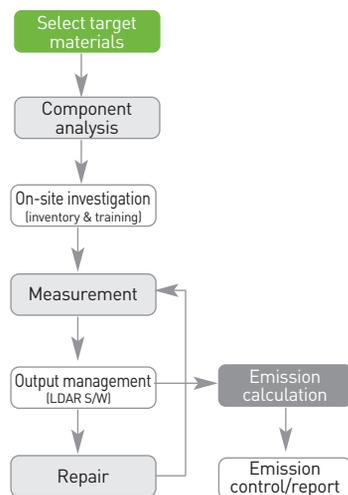
#### Implementation of an IT System for Managing Chemicals in Products

Work is underway at LG Chem to set up a chemicals management system which can be linked to the Enterprise Resource Planning (ERP) to produce eco-friendly products. Under the system, bills of substance (BOS) provided by our purchasing suppliers would enable linkage with prescriptive, purchasing and sales information in the ERP and allow proactive responsiveness to product and environmental regulations. In other words, when a certain country starts to enforce regulations on specific substances, the system will prevent the products containing regulated substances from reaching customers in that given geography. Furthermore, the IT system will enhance transparency in our environmental activities as the history of chemical substances, from sourcing to sales, can be tracked down and controlled.

### Leak Detection and Repair (LDAR)

A series of activities to reduce emission of hazardous chemicals: Target materials are selected from fugitive emission sources in the processes, followed by component analysis and on-site investigations. Then bar codes are granted to the relevant equipment, its concentration levels are measured via a meter with a built-in reader, and generated data gets entered into the management software for analysis, leading to improvement initiatives in leakage-prone equipments.

#### LDAR Flow



On-site VOC Measurement

### Hazardous Chemicals Management

Toxic Chemicals are controlled with maximum rigor at LG Chem from their warehousing, use 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 the case of contingency. Emergency drills are performed on a regular basis as well, as part of our hazardous chemicals management.

#### Hazardous Chemicals Training at Yeosu Plant

| Description | Frequency          | Training   | Trainees                                      | Remarks   |                       |
|-------------|--------------------|--|---|---|-----------------------|
| In-house    | Training           | Quarterly  | MSDS for hazardous chemicals                  | In-house training led by E&S secretary and safety engineers |                       |
|             |                    |  | Instructions on leakage emergency             |   |                       |
|             |                    | E&S training as per plan                                     |   |   |                       |
| Drills      | Half-yearly        | Team drills with emergency scenario                          | Emergency response organization               | Led by production team                                      |                       |
|             | 3 times/year       | Joint group-wide drills with fire department, labor ministry |   | Joint training with relevant government bodies              |                       |
| Suppliers   | Education/training | Quarterly  | Manager training                              | Managers from suppliers                                     | Led by logistics team |
|             |                    | Monthly  | In-house leakage prevention/response training | Suppliers   | Led by suppliers      |

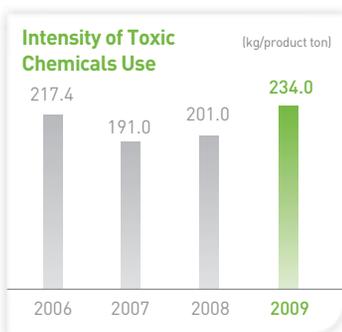
#### A Control Process for Hazardous Chemicals Leakage



LG Chem takes a scientific approach to managing the emission levels through Toxics Release Inventory (TRI)<sup>29)</sup> to bring down the use of toxic chemicals and substances every year. LG Chem signed a voluntary agreement on reducing toxics 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.



TRI Information Disclosure Webpage



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

▼ Hazardous Chemicals Improvement Activities by Site ▼

| Site     | Improvement Activities  | Investments (KRW million) | Impact                                    |
|----------|---|---------------------------|---|
| Daesan   | Implementation of LDAR system   | 630                       | Prevention of chemical leaks into the air |
| Yeosu    | Roll-out of LDAR system (specialty polymers, 3AA, PBT)                | 143                       | Prevention of chemical leaks into the air |
| Naju     | Alcohol storage dike paving/improvement of dikes in the tank areas    | 295                       | Prevention of hazardous chemical leaks    |
|          | Installation of a new internal warehouse for toxic chemicals          | 100                       | Toxic chemicals management                |
| Gimcheon | Installation of a new internal storage for dangerous chemicals        | 100                       | Toxic chemicals management                |
|          | Installation of new disaster-prevention equipment for toxic chemicals | 10                        | Toxic chemicals management                |

RESPONDING TO REACH

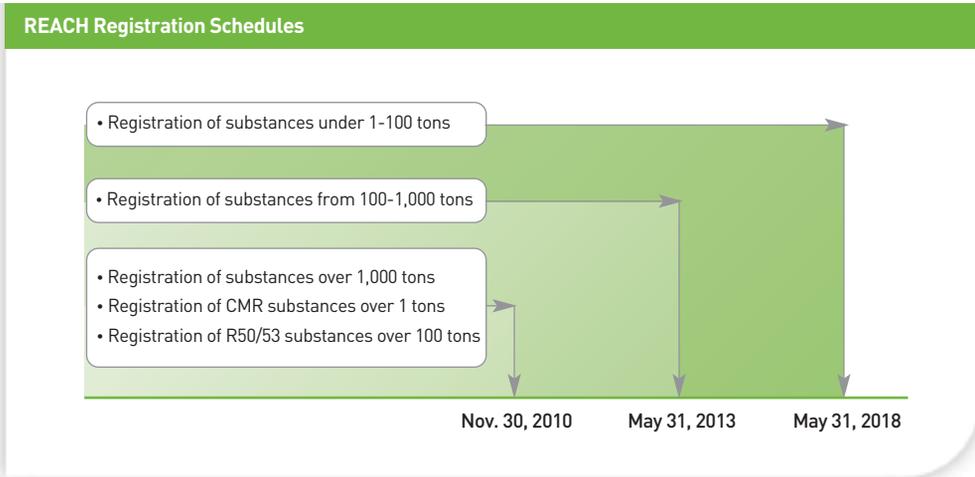
■ SEIF and REACH Consortium for Registering for REACH

LG Chem has been taking an active part in the Substance Information Exchange Forum (SIEF) and REACH Consortium activities after pre-registration in 2008. We now plan to pursue REACH registration through our European sales subsidiary, designated as Only Representative (OR).

● REACH

Registration, Evaluation, Authorization, and restriction of CHemicals

REACH entered into force on June 1, 2007, streamlining and integrating some 40 former legislative frameworks on chemicals of the EU. Registration is mandatory for any chemical substances manufactured and imported into the EU region with over 1 ton per year, and chemical substances contained in preparation, or those chemicals intentionally released in finished products. Registration is quite a demanding and difficult process with the cost of testing high, as physical and chemical properties as well as in-vivo toxicity need to be tested for safety.



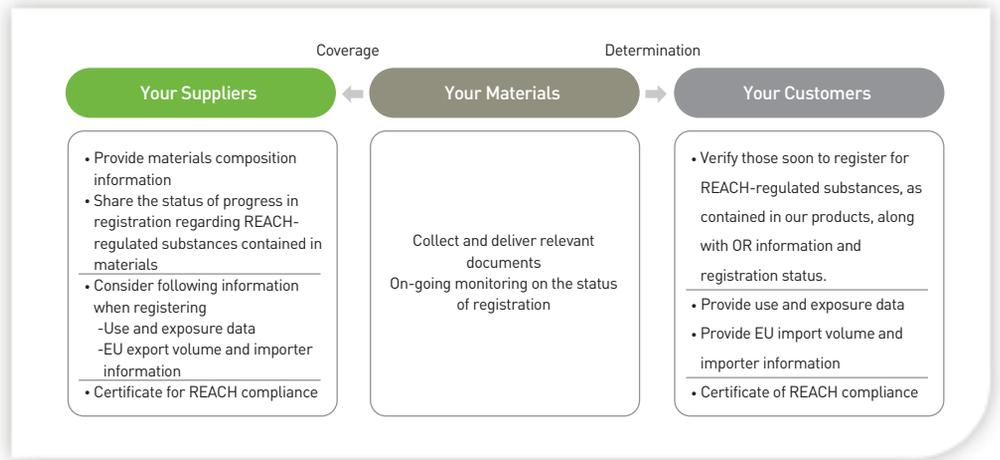
In accordance with the 'One substance, One registration' principle under REACH, LG Chem is planning to work through Substance Information Exchange Forum (SIEF)<sup>30)</sup> to register for REACH and are now preparing Technical Dossiers (TD), Chemical Safety Reports (CSR) and other practical work through substance-specific REACH Consortium. We plan to complete registration for 21 substances by November 30, 2010, which will enable our customers to continue to securely manage their businesses in the EU market under the REACH regulations. LG Chem will continue to share with our customers the progress we are making in registration for REACH.

### REACH Registration for Purchased Raw Materials

As for those externally sourced substances contained as part of LG Chem products, business partners will be taking the lead in registering the substance with REACH. To help with the process, LG Chem is presently rendering full support to the suppliers by sharing key information in a timely manner, e.g., export volume to the EU by substance, EU importer information, and usage and exposure data. Also, we check progress in the registration process with regular frequency to preempt any risks that may arise before registration is complete. For any substances in quantities of 1,000 ton or more in export to the EU, in particular, we conduct real-time monitoring of our suppliers in SIEF and their progress in registration so that substances can be registered within the deadline.



SEIF Platform for REACH Registration



#### Interview



Professor at Konkuk University,  
**Baek-Seo Seong**

It is my view that LG Chem is putting in an organization-wide effort to respond to key environmental challenges it confronts in its business as well as those emerging issues on the horizon, including environmental pollution, energy and climate change, and hazardous chemicals control. LG Chem seems to present the results from its dedicated effort in its entirety. I judge that there is no intentional omission or exclusion of information regarding their environmental and energy performance.

The environmental management system of LG Chem ensures that the principles of prevention and continuous improvement are honored by its organization and

throughout operation, with credible improvement efforts to support the system, thus assuring reliability and completeness in all the information as presented in the report. Furthermore, LG Chem is seen to be building appropriate responses to diverse stakeholders and endeavoring to bring continuous improvements in its system. However, I hereby put forward a couple of recommendations to drive sustainable growth of LG Chem in the future.

First, it needs to address the issue of water scarcity with more interest and concrete action, as water, though not highlighted as much as it should right now, will certainly emerge as an important issue going forward. It needs to do more than just managing the water intensity. LG Chem needs to strategically broaden its response, given the fact that water is likely to take on greater significance, even more than energy and GHG emission reduction in the context of green growth. Second, LG Chem needs to adopt a global perspective on identifying the scope of its stakeholders and take the lead in addressing their needs, considering the face pace of globalization. In the future, if LG Chem can bring such insight into its report and present a wider set of comparative information for global stakeholders to understand more easily, its sustainability reports will be more fully utilized as a tool for stakeholder communication.

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SOCIETY

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67 \_ SAFETY AND HEALTH

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72 \_ SOCIAL CONTRIBUTION





# 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.

LG Chem wants to make a difference to the world with a spirit to care for others.



## **Our Corporate Citizenship**

We are moving beyond management practices rooted in 'market-driven capitalism', which has allowed LG Chem to contribute to the growth of a national economy as a leading chemical company in Korea. We now envision 'creative capitalism' to fulfill our responsibilities as a corporate citizen, reaching out to our neighbors in need through social contribution efforts.

# Talent Management and Labor-Management Collaboration

## SOCIETY

We respect individual creativity and autonomy in people and value their capabilities. Guided by LG Way, we foster human resource that is competent to lead our business in line with global standards.

### Our People

Have a belief in and a capability to execute LG Way

- 01 Have a dream and passion, challenging oneself in pursuit of global excellence
- 02 Keep a customer focus while innovating oneself constantly
- 03 Build teamwork yet work with self-initiative and creativity
- 04 Develop skills continuously and compete fair and square

### OUR PEOPLE

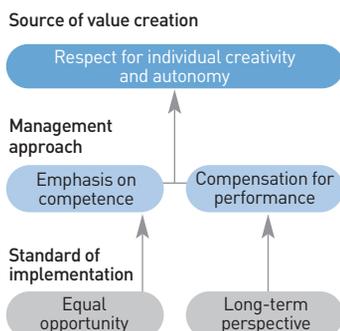
LG Way is a foundation that shapes the ideas and actions of people at LG. The qualities we look for in people at LG Chem, therefore, are 'a belief in and a capability to execute LG Way'.

### HUMAN RESOURCE PRINCIPLES

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

Under the 3H principles, we value diversity and seek people with highest capabilities. We bring out the highest performance through fair compensation, and offer highest compensation to our top talent regardless of race, nationality and gender.

### Human Resource Principles of LG Chem



### 3H: Highest Capability, Highest Performance and Highest Compensation

**Highest Capability**

We hire top talents from all around the world, regardless of race, nationality and gender.

- Recruit people with creativity and unique individuality
- Job placement with consideration for individuals' preference and aptitude
- Offer incentives to core talents, based on their market value and business impact

**Highest Performance**

We present top talents with challenging tasks and broader training opportunities to develop them into core talents, based on fair and objective evaluation.

- Objective and impartial evaluation system
- Systematic training opportunities for each level and skill.
- One-on-one career development session/Well-devised career development system

**Highest Compensation**

We provide highest compensation to top talents regardless of race, nationality, gender, religion, disability, geography and association.

- Annual salary system linked to individual skills and performance
- Substantial rewards on performance, e.g., profit sharing
- Fast track promotion system

With compliance to Labor Standards Law, we specifically abide by the child labor ban, prohibiting children working under the age of 15 and the forced labor ban that forbids the employer from forcing labor against the free will of the workers.

## COMPENSATION FOR PERFORMANCE

LG Chem ensures fair opportunities to our employees so that they can generate performance based on their individual creativity and autonomy. We provide competitive pay and benefits on the basis of performance under personnel management principles.



Leadership Development Course for Team Leaders

### Profit Sharing

Incentives linked to economic performance of the company

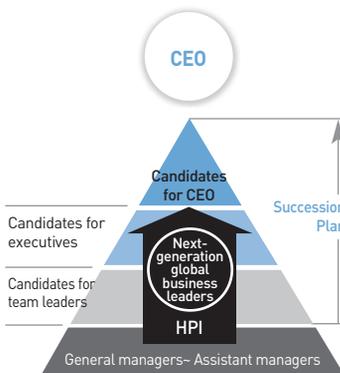
### On-spot Incentive

Incentives given on-spot when individuals achieve their performance targets, in the range of 50-500% of their base pay

### GC(Golden Collar) Incentive

Incentives paid to core talents considering their market value

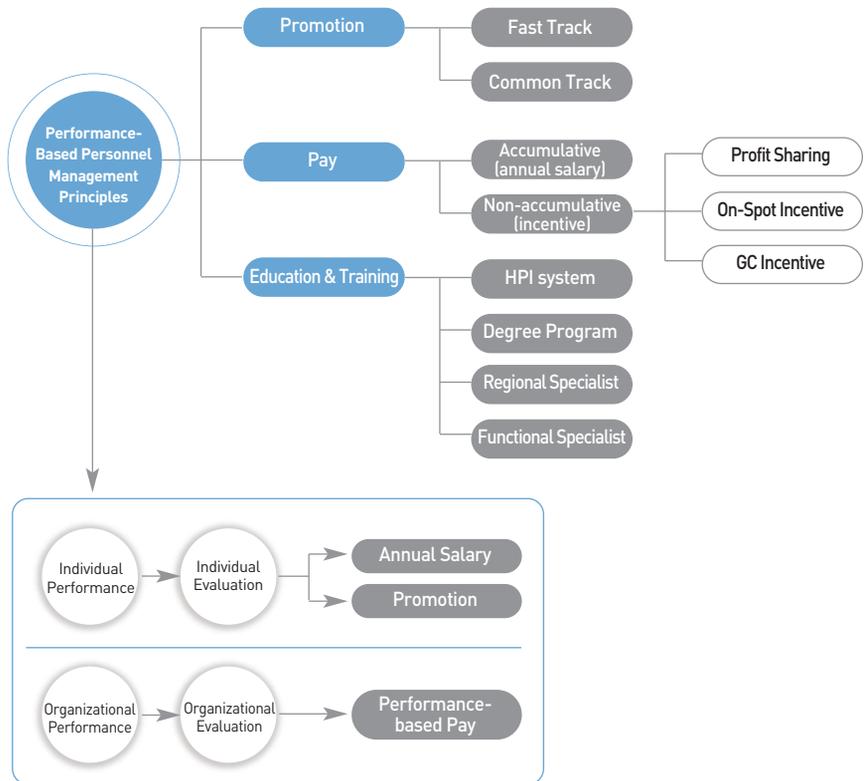
### Core Talents Development System (HPI, next-generation global business leaders, succession plan)



Head of business division:  
1 post 3 successors

Team leader-levels/ key overseas posts:  
1 post 2 successors

### Compensation System on Performance-based Personnel Management Principles



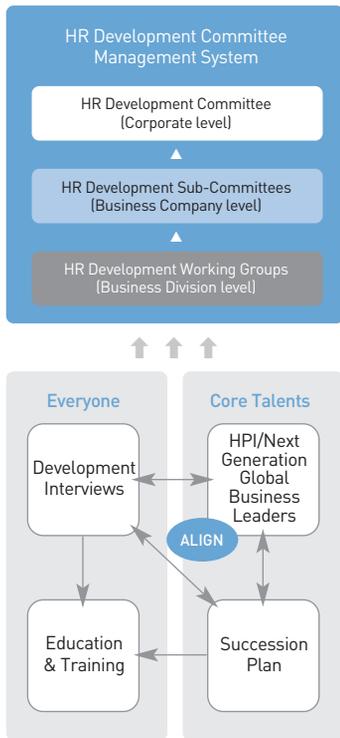
## HR DEVELOPMENT PROGRAM

### Developing Core Talent for Winning Business

High Potential Individual (HPI)<sup>31)</sup> program and next-generation global business leader program: Designed to ensure early discovery and systematic development of next-generation entrepreneurs. Core talents learn business management, foreign language and leadership skills, and undertake Career Development Program (CDP)<sup>32)</sup> for job competency development.

Succession Plan Program: 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 competence and job specialty required. The HR Development Committee discusses plans and methods for nurturing the candidates and renders tailored support for their individual development.

● **Human Resource Development Program at LG Chem**



New Researcher System: To foster R&D talents to secure winning technologies, we offer substantial, executive-level compensation to our researchers and enable them to generate performance from a mid-to long-term horizon. High-caliber researchers are given a vision and necessary supports so that their R&D activities can produce tangible results for business.

■ **Developing Entrepreneurs for Global Operation**

Global Standards Education: We focus on deepening global organizational competence to remain competitive. That is why we adopted a global approach towards educating our people. We have developed targeted education programs for those that interface directly with our global customers, so that they can familiarize themselves with work process and business etiquettes that are aligned with global standards.

Promotion of English Use and Education: With a view to promote the use of English as our official language at LG Chem, we are expanding the use of English during important business meetings, as well as during the development interviews conducted by the HR Development Committee. In particular, our intensive business English programs as well as English business meeting & presentation courses allow our people to deepen their communication skills. In addition, we send our employees to global top 30 MBA courses as well as renowned local universities in Korea to nurture them into global thinkers and strategists to lead our key business areas, and also run 'Regional Specialist Programs' (centering on strategic geographies such as China, India, Brazil, Russia and the Middle East).

■ **LG Way-based Education Programs and Reinforcing Execution**

We have structured training programs for every member at LG Chem, based on LG Way. We have continued to run 'Team Leader Leadership Programs' to cultivate leaders who are aligned with LG Way. Also, we have implemented 'YG (Young Generation) Development Programs' with an aim to sharpen organizational competitiveness through systematically developing our staff, from entry-levels to assistant manager levels, as they are the next generation engine for growth. Under the project, we offer custom-tailored training programs such as 'Together Program', 'Professional Leader Program' and 'Understanding LG Chem Business (e-learning)', and are creating visible performance as a result.

HR Development Committees for Business Units: We run HR Development Committees at each business unit to more effectively implement our talent development policies. The committee system provides a framework for employee interviews, evaluation, promotion and core talents development. Moreover, we apply 'HR Index<sup>33)</sup>' to measure how well the company is managing its HR practices, especially in the areas of core talent retention, staff development, business leader identification, stable labor-management relations and employee satisfaction with the organizational culture. Our effort goes a long way towards building an enabling climate for all our people to get involved and engaged in HR development.

**WORKFORCE STATUS**

As of 2009 yearend, we employ 8,337 people (full-time basis) of which 85.8% are working at business sites other than the head office. By gender, there is 7,597 male and 740 female staff. In 2009, we newly hired 592 people, with male and female workers representing 89.0% and 11.0%, respectively. During the year, a total 214 people retired, with a male-to-female ratio at 83.6% : 16.4%. The retirement ratio standing at the end of the year is 2.6% and the ratio has been coming down steadily in recent years.



Leadership Building Course



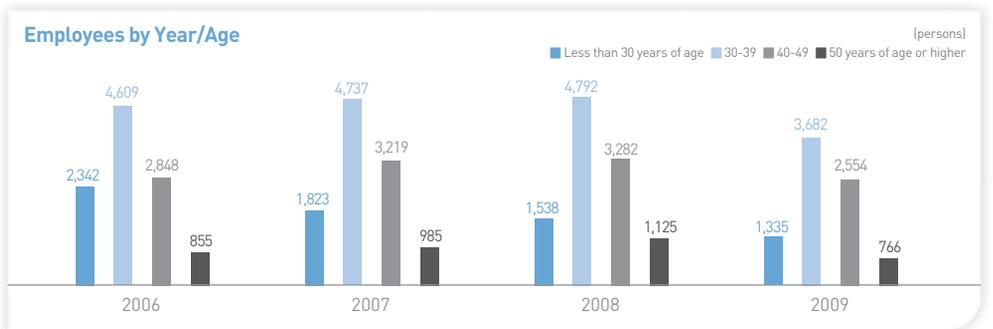
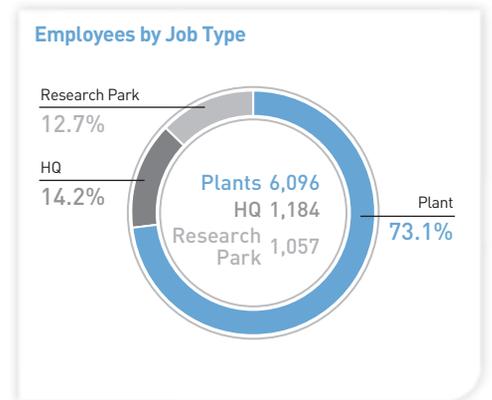
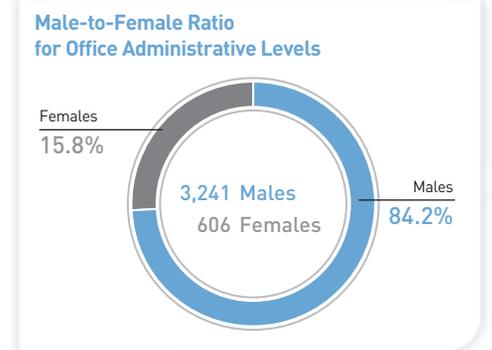
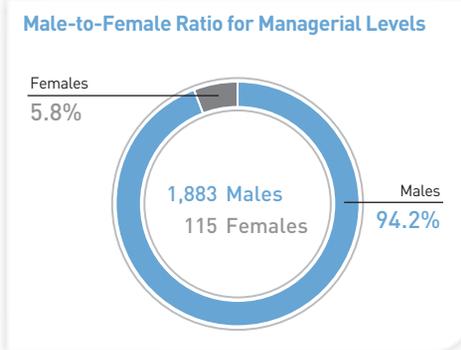
Global Talent Development Training Course



BC Tour & Tech Fair



China Leadership Building Course



## GLOBAL TALENT RECRUITMENT & DEVELOPMENT FOR LOCALIZATION IN OVERSEAS

To accelerate localization of our overseas business operation, LG Chem aggressively attracts and develops competent human resources. Our major overseas operations, especially in China, are being pushed towards localization through local management.

### Our Overseas Workforce

As of the end of 2009, LG Chem has presence in 14 countries across the world (China, Taiwan, India, Vietnam, Thailand, Indonesia, Singapore, Japan, U.S., Brazil, Germany, Poland, Turkey and Russia), operating total 26 overseas subsidiaries and representative offices. We employ 5,652 people abroad, of which 5,520 are local hires (97.6%).

Among them, 4,604 people are based in the Chinese region, accounting for 81.5% of total overseas workforce, including 4,508 that are locally hired. Moreover, post localization rate for part leaders or above represent 76% for now, but we aim to raise the level above 83% by the end of 2010 to foster local talents from a mid-to long-term perspective. In India, there are a total 301 people working in the region, taking up 5.3% of total overseas workforce.

**Local Hiring Process**

In China, we organize regular on-campus recruiting tours twice a year at major Chinese universities based around our local subsidiaries to secure entry-level workers. 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. In Europe, when we search for experienced workers who are at managerial levels or higher, we fully utilize local recruiting firms to identify and bring in highly qualified human resources.

**Talent Development Programs**

We are carrying on with our initiatives to cultivate local workers who can competently lead local operations in place of expatriates from the head office. We implement a wide variety of programs to proactively upgrade the capability of the local hires, i.e., HPI programs, HQ trainings, HR/finance workshops and other function-specific workshops as well as LG Way dissemination & internalization trainings.

**Flexible Benefit Plan**

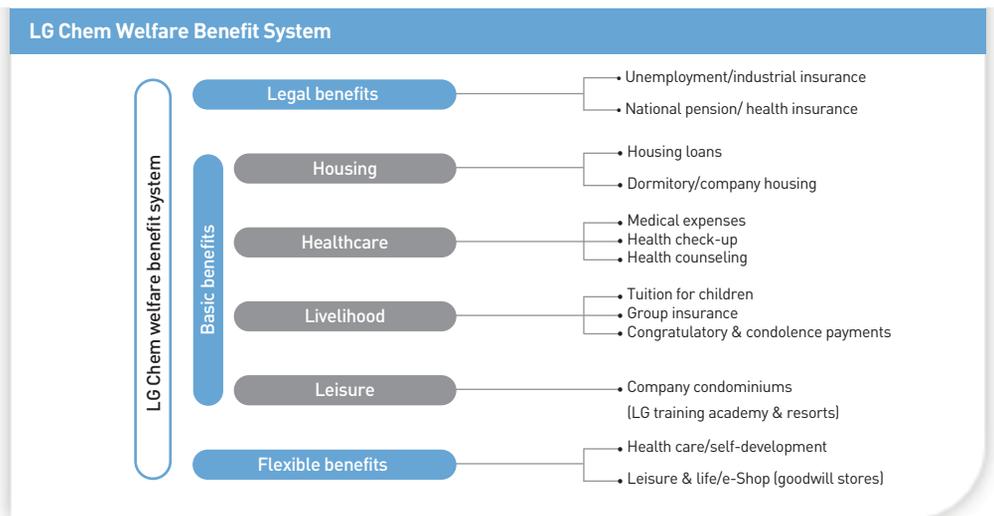


**WELFARE BENEFITS**

LG Chem provides various welfare benefits for our people to lead healthy and secure lives. Our commitment to competitive welfare instills a stronger sense of pride in our employees, induces their full immersion in work while promoting a stimulating workplace. A case in point is our flexible benefit system launched in 2006 to promote Work & Life Balance (WLB) of our people. Under the scheme, we support our employees with a broad range of options in leisure and self-development activities, such as liberal arts courses, foreign language and sports, which are aligned with their needs and preferences. LG Chem annually publishes welfare guidebooks and invites employee feedback to continuously enhance and refine the welfare system, thereby improving employee satisfaction.



Family Center in the Daesan Factory Housing



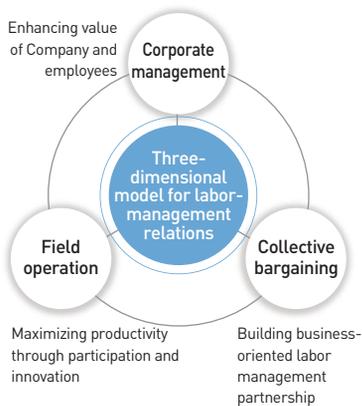
## LABOR-MANAGEMENT COLLABORATION

We believe in a horizontal relation between labor and management, not a vertical structure that has often defined the dynamics between union and management. We seek relations between labor and management, underpinned by mutual respect and equality.

### ■ Vision for Labor-Management Relations

Embracing our guiding principles of ‘creating value for customers’ and ‘respecting human dignity’, LG Chem envisions a labor-management partnership for participation and cooperation. We aspire to materialize community-type labor-management relations, that builds global competitiveness in our business, enriches the lives of our employees and contributes to social development through sustainable performance.

### ● Three-dimensional Model for Labor-Management Relations



#### Corporate management

- Build trust in management activities
- Present a vision for company and employees

#### Field operation

- Lead by example and build strong teamwork
- Drive performance through innovation

#### Collective bargaining

- Foster a productive negotiation culture
- Rationalize labor-management practices

### Vision for Labor-Management Relations

#### Vision

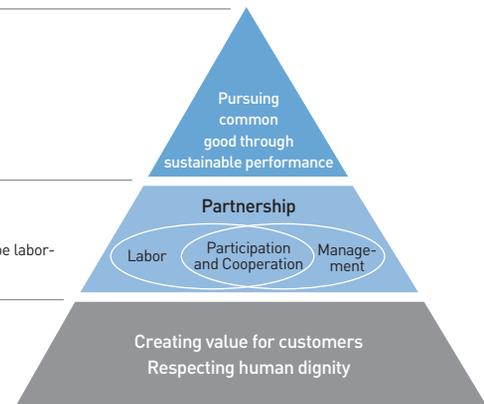
- Building global business competitiveness
- Enriching the lives of employees
- Contributing to social development

#### Implementation Guidelines

- Unique implementation guidelines of LG labor-management to realize the vision of community-type labor-management relations

#### Fundamental Principles

- LG’s goal of business management & LG Chem’s principles of business operation
- LG’s fundamental philosophy of community-type labor-management relations



### ■ Three-dimensional Model for Labor-Management Relations

LG Chem aims to build community-type labor-management relations. We have therefore put in place a unique model for collaboration that facilitates interactive participation and cooperation in three different dimensions interlinked with labor-management relations, namely, 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 the 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 industrial relations and a productive negotiation culture in the collective bargaining dimension. In addition, the collective bargaining agreement signed between the union and the management applies to all our employees as per relevant labor laws. The agreement was conducive to further solidifying the platform for collaboration, by specifically mandating the management to hold consultation with the union in advance and in good faith to implement major changes in business.



HR Sharing Meetings



Organizational Revitalization Program



Joint Labor-Management Workshop, 2009

## Major Initiatives of Labor-Management Collaboration

### Corporate Management Dimension

LG Chem promotes field management of top managers through the CEO's "Dialogues with Employees" and the CHO's "HR sharing meetings". We are also facilitating effective communication with the management team based on 11 Junior Boards from each business unit. In addition, we measure how much trust our employees have in management activities and identify any 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 dedicated to promoting a more decent workplace through operating a joint labor-management committee on occupational safety and health. We also provide our staff with overseas industrial training opportunities to broaden their horizons on the global market and competitive landscape.

### Collective Bargaining Dimension

Business results are shared and key pertinent agendas are discussed through labor-management council held on a quarterly basis. We 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 negotiations, and form a working-level committee during such negotiations to promote a productive culture for negotiation.

## Visible Accomplishments from Labor-Management Collaboration

LG Chem has successfully carried out collective wage bargaining negotiations in the last six years without a single labor dispute to date, by capitalizing on our 'three dimensional model for labor-management cooperation' built on a spirit of engagement and collaboration. During the collective wage bargaining negotiation in 2009, a new milestone was reached in establishing a desirable model of labor-management collaboration with the representatives agreeing to a wage freeze as a way out of the economic crisis, while signing an agreement for job security at the same time. These accomplishments have not only become the source of competitiveness for the company, but also enable a best-in-class working environment and provide welfare benefits for our employees. LG Chem, as a result, has earned recognition for its significant contribution to labor-management relations stability in the industrial workplace in Korea.

### Key Issues of the Labor-Management Council, 2009

| Issues             | Details  |
|--------------------|--|
| Incentives         | Sharing the criteria and the scale of incentive payments   |
| Staffing           | Discussing staff management and manning for key sites      |
| Welfare facilities | Operation of in-house childcare facilities                 |
|                    | Repairs for aging welfare facilities within business sites |
|                    | Discussing assistance for welfare                          |
| Others             | Sharing key timelines on the company calendar              |
|                    | Coordination of joint scheduling of the council            |

# Safety and Health

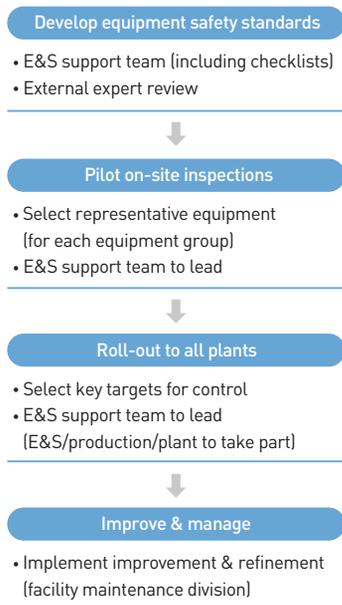
## SOCIETY

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

### ● Safety and Health Management System



### ● The Audit Planning Flow Chart for High-risk Equipment at Yeosu Plant



## SAFETY AND HEALTH MANAGEMENT SYSTEM

Our management principles and corporate safety management regulations serve as the basis for establishing safety and health policies at each business site. Throughout our entire management process, safety and health aspects are factored into risk assessment, training & education and contingency response, with a stress on continuous improvement. We have thus adopted Process Safety Management (PSM)<sup>34)</sup> to ensure legal compliance and have implemented safety and health management systems such as OHSAS 18001 and KOSHA 18001. We have also realigned and integrated various safety and health systems into Responsible Care, a voluntary, sustainable initiative of chemical companies to bring increased efficiency and performance.

## SAFETY MANAGEMENT AND IMPROVEMENT INITIATIVES

To prevent industrial accidents and eliminate risks, each business site establishes their safety policies and objectives, and conducts safety audits, projects, education and trainings. The head office organizes technical workshops/audits for S&H managers while performing fire safety audits on non-manufacturing sites including training academies and distribution centers, with internal safety audits done individually at each site. Beginning 2008, the Yeosu plant set their internal technical standards for managing high-risk facilities to prevent major accidents and has since carried out on-site inspections to address various issues. The plant also audited five equipment including ammonia chillers in 2009.

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.

### ■ Insurance Risk Management Project

LG Chem implemented an Insurance Risk Management (RM) Project to manage risks associated with handling a large volume of various explosive materials, utilizing a scientific tool and with a minimum cost. There are a number of ways for managing risks-risk retention, risk avoidance, risk mitigation and risk financing. Focusing on risk mitigation and risk financing activities, we have achieved significant impact in reducing risk management costs including insurance premiums while establishing loss control guidelines and formulating optimum measures for risk management.

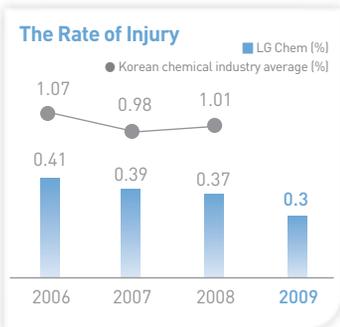
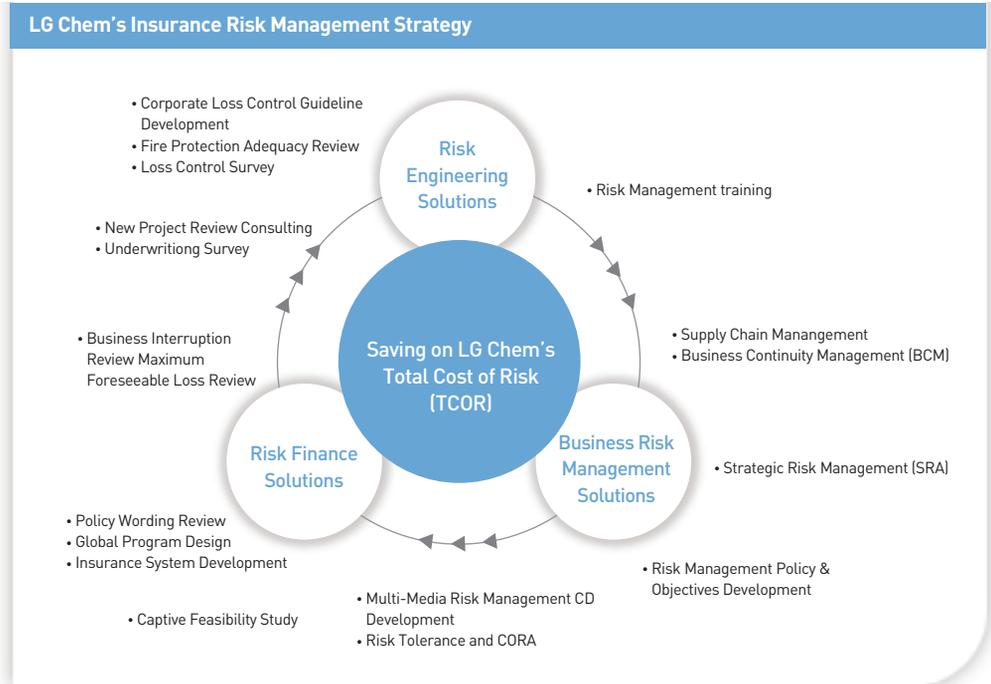
As part of the Insurance RM Project in 2009, we ran a Maximum Foreseeable Loss (MFL)<sup>35)</sup> analysis on Ochang Techno Park to assess the cost and benefit of risk improvement plans, and plan to gradually roll out the analysis to all sites starting 2010.



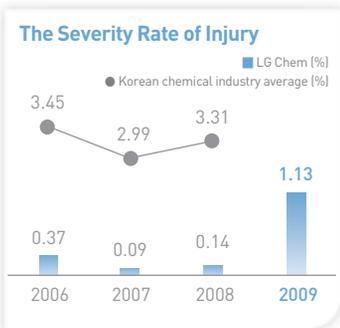
Industrial Safety and Health Committee Workshop



Optical Materials Health Promotion Campaign



\* The rate of injury =  $\frac{\text{Number of employees injured}}{\text{Number of employees}} \times 100$



\* Severity rate of injury =  $\frac{\text{Total loss of working days}}{\text{Total annual working hours}} \times 100$

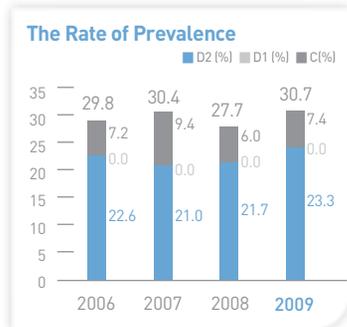
Industrial accidents are measured by accident rate, injury rate per thousand men, frequency rate of injury and rate of severity, etc. As performance indicators for accident prevention, LG Chem uses accident rate that indicates the frequency of disaster occurrence and the rate of severity which shows the scale of disasters. There has been a continued downward trend in industrial disasters. In 2009, off-site accidents accounted for 8.0% of total industrial accidents. Accidents with lost work days exceeding 90 days represented 20.0%-a drop from 42.5% in 2008 as most of the accidents are related to fractures, but the rate of severity went up during the year due to two major disasters.

One of the major disasters was triggered by a fire accident caused by explosive gas leaks during piping work. We came up with concrete countermeasures across-the-board to deal with the problem, by revisiting our work procedures, reviewing pertinent equipment, technical and administrative factors, and conducting emergency rescue work. The other accident involved a worker being jammed in the film roll. We expanded work space to allow operators to work in a safe position and installed more safety bars and emergency stop switches to fundamentally prevent such accidents from occurring in the future.

#### ▼ 2009 Industrial Disasters ▼

| Scale of Disaster (work day loss) | On-site |         | Off-site          | Total |
|-----------------------------------|---------|---------|-------------------|-------|
|                                   | On-job  | Off-job | Picnic/Sports day |       |
| Under 90 Days                     | 72%     | -       | 8%                | 80%   |
| Over 90 days                      | 20%     | -       | -                 | 20%   |
| Total                             | 92%     | -       | 8%                | 100%  |

\* On-site: inside of the work place    Off-site: outside of the work place    On-job: While on duty    Off-job: While off duty (break time, etc)



\* The rate of prevalence is rising as the year of service and the average age of employees increase.

**C (Concern)**

Workers who need to be tracked and observed due to concerns for potential disease

**D1 (Diagnosed 1 for occupational disease)**

Workers who need follow-up management as they are diagnosed with occupational disease

**D2 (Diagnosed 2 for general disease)**

Workers who need follow-up management as they are diagnosed with general disease



Health Check-up at Daesan Plant, 1H

### Health Promotion Activities

LG Chem has in place various health care programs, such as onsite medical visits to prevent general and occupational illnesses; delivery of health information; physical therapies to protect against musculoskeletal diseases; and preventive activities jointly organized with external expert groups targeted at noise-induced hearing loss which is commonly found in manufacturing factories but difficult to treat.

It is quite rare to find employees suffering from diseases that are attributable to poor working environment and conditions; however, adult diseases due to westernized diet, lack of exercise and smoking, as well as mental illnesses caused by stress are increasing. Accordingly, Yeosu plant built a database of family medical history and lifestyles of employees for customized medical check-ups, and we installed fitness checkup facility and workout machines at our business sites as well as promoting non-smoking & drinking campaigns and medical consultations for adult diseases. All our business sites are also now equipped with Automated External Defibrillator (AED)<sup>36)</sup> to perform emergency resuscitation procedures on hear attach patients.

**Customized General Check-up**

**Rationales & Our Actions**

**Rationales**

- A growing social interest in brain/cardiovascular diseases
- A strong need for early detection and treatment for brain/cardiovascular diseases as an increasing number of our Yeosu employees are developing the disease  
2 people (2006) ▶ 10 (2007) ▶ 10 (2008)

**Our Actions**

**'Early'**

- Morbidity risk assessments done on all employees regarding metabolic symptoms and brain/cardiovascular diseases- a first for the company
- Evaluation on risk of developing any disease among our employees
- Analysis of family medical history and lifestyles of all employees & database development

**'Fast'**

- Target grouping by morbidity risk, evaluation matrix & follow-up
- Customized health check-up services offered during 2009 general check-ups

**'Real time'**

- On-going monitoring of health check-ups
- Thorough follow-up services when a medical case for brain/cardiovascular disease occurs [Systematic regular medial counselings by specialist physicians]

**Customized Check-up Services**

**Personal data analysis**

- Analysis of general check-up, special/regular check-up results
- Analysis of family history & lifestyles charts

**Risk assessment and grouping**

- Evaluation of brain/cardiovascular disease morbidity and metabolic symptoms
- Grouping of risk-based target employees (9 groups based on risk levels of morbidity)

**Check-up priority matrix**

- A list of priority target employees by group for general check-ups

**Customized check-up services (March 10 onwards)**

- E-mail proposals of customized check-ups to each individual (limited to those classified as high-risk)

**Next steps**

- Credibility evaluation on service results
- Thorough patient follow-up by specialist physicians
- Recommend health tips including exercise methods for each risk group

# Partnership with Suppliers

## SOCIETY

We work to build stronger competence in our business partners through financial, education and innovation support. Respecting the principle of free competition, we ensure fair opportunities in the selection process to form partnerships firmly rooted in trust.

### SELECTION AND EVALUATION OF BUSINESS PARTNERS

#### ■ Registering and Selecting Business Partners in a Transparent and Fair Manner

Our Open Purchasing Electronic Network (known as OPEN)<sup>37)</sup> is designed to process supplier registration and selection in such a way that ensures all willing, qualified bidders are able to take part in the registration and selection proceedings. The OPEN system gives a detailed account of registration application, selection criteria and procedures, new vendor selection and evaluation criteria to leave no room for arbitrary interpretation of our procedures. The system discloses such information at all times to ensure transparency.

#### ■ Partnering with Ethical Suppliers that Respect Environmental, Safety and Labor Standards

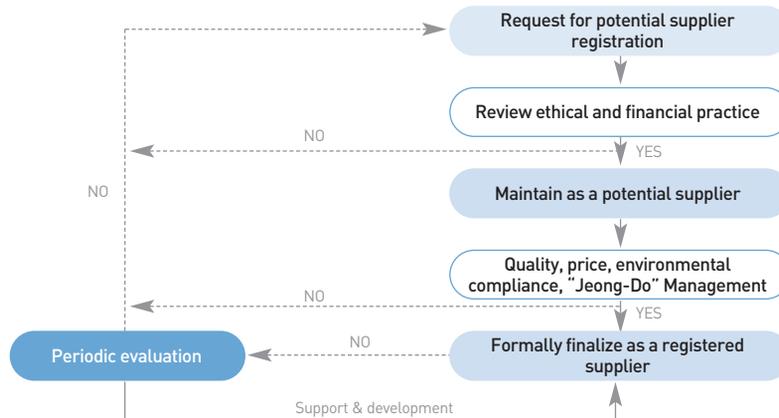
When registering a supplier, we review first whether the applicant conforms to safety and environmental regulations such as RoHS and REACH, complies with labor laws and runs their business in an ethical manner. We partner only with those suppliers who satisfy all the criteria. We periodically track the performance of the suppliers even after they become registered, to decide whether to support, develop or exit the suppliers.

Our supplier evaluation system, under which our suppliers get evaluated for their performance, allows the relevant vendors to check their evaluation scores and work on areas of deficiency to attain needed capabilities.



Supplier Training

#### Supplier Selection & Evaluation Process

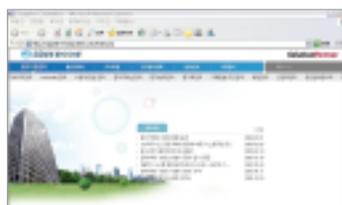
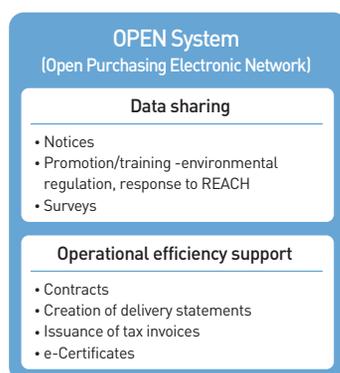




OPEN Sourcing System



### OPEN System



Supplier Evaluation System

### OPEN System

Open Purchasing Electronic Network (OPEN) system is LG Chem's integrated purchasing management system to bring transparency in transactions, facilitate communication across supply chain and promote operational efficiency. In 2010, we plan to enhance our OPEN system to make it more user-friendly and expand it to cover our overseas J/V as well.

## COLLABORATIVE PARTNERSHIPS WITH SUPPLIERS

### Supporting Management Innovation of Suppliers

LG Chem has set up an assistance mechanism to support our suppliers in five areas-financing, payment terms, quality/technology development, personnel/training, and management. We are delivering the needed support to the suppliers to promote win-win partnership.

Our support mechanism is intended to induce our business partners to take the initiative in building competitiveness. For business partners experiencing cash flow difficulties, LG Chem is rendering assistance through direct financial support on raw materials and equipment purchases, and indirect support through LG Chem win-win funds and family loan service. In addition, we try to enable our business partners to possess their own competitiveness by assisting them in improving their technological edge. We support their product localization efforts through technology networking, provide our manpower, technology, information and analysis equipment for new product and technology development, and help them with patent registration. Moreover, we offer free-of-charge trainings on environment, safety and health and support their innovation programs such as 6 Sigma campaigns. To promote fair trade and build a sustainable partnership model, LG Chem adopted three guidelines- fair contract, fair supplier selection & management, and fair trade promotion- as the key principles of win-win partnership. We have increased cash payments to our business partners with proven track records, with KRW 10.5 billion in cash paid out in 2009.

### ▼ Support Mechanism for Collaborative Partnership with Suppliers ▼

| Support                          | Details  |
|----------------------------------|--|
| Financial support                | LG Chem win-win fund, family loan                                    |
| Payment terms improvement        | Cash payments increased  |
| Quality & technology development | R&D manpower, technology, information and analysis equipment support |
| HR & training                    | Safety and health trainings provided                                 |
| Management                       | Innovation program support including 6 Sigma campaigns               |

### Improving Environmental Management Practices of Suppliers

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. In this regard, we set up 'Eco-SCM Operating Procedures' to support and manage environmental management activities of the suppliers. We fully completed pre-registration for REACH in 2008 and are presently implementing an internal process for screening any new materials we source since that point on, to check for conformity with various environmental and imported chemicals regulations such as REACH and RoHS. With this process in place, we plan to form a taskforce team to support and train our local business sites as well as overseas subsidiaries to register for REACH within the cut-off date, and help our suppliers with follow-up support on the REACH registration to ensure continued export to the EU.

# Social Contribution

## SOCIETY

LG Chem adopts a 'Creative Capitalist' approach to social contribution, going beyond short-term, one-off donations or charities. We focus on education, welfare, local community support and global social contribution in fulfilling our social responsibilities.

### CORPORATE CITIZENSHIP

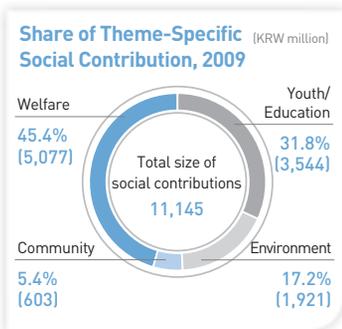
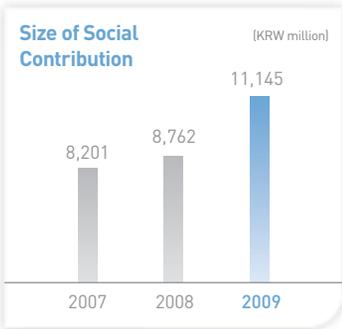
We are moving beyond management practices rooted in 'market-driven capitalism', which has allowed LG Chem to contribute to the growth of a national economy as a leading chemical company in Korea. We now envision 'creative capitalism' to fulfill our responsibilities as a corporate citizen, reaching out to our neighbors in need through social contribution efforts.

### OUR APPROACH

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

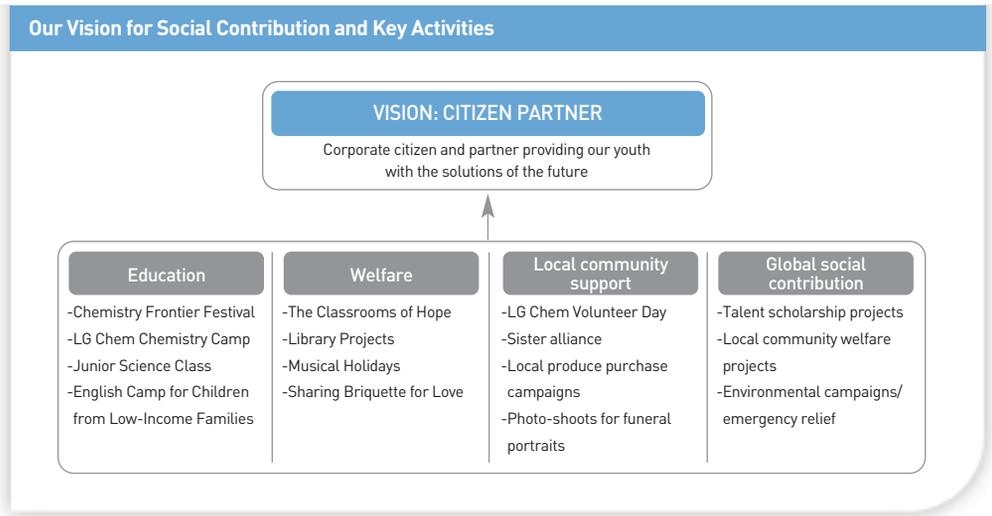
We are actively engaged in 'education' projects to raise the youths' interest in science and technology and foster talented young people, by tapping into our expertise as a chemical company. With a solid conviction that the future of Korea will be shaped by the youth, we are carrying out 'education' projects to promote better welfare for the young. In the meantime, LG Chem offers various targeted 'welfare' programs for the relatively underprivileged people to help narrow the ever-widening economic disparities and make a more inclusive society for all.

Our commitment to mutual, sustainable growth has led us to define 'local community support' as another critical pillar of our social contribution efforts and engage ourselves in various activities for local communities. Our dedication remains the same around the world. We do not consider regions where we have our overseas subsidiaries as just another base for manufacturing or marketing. We have thus selected 'global social contribution' as the final key theme to explore innovative ideas for contribution to the given geography.



**Creative capitalism:** A term first coined and popularized by the founder of Microsoft Bill Gates in his acceptance speech, receiving an honorary diploma from Harvard University in 2007 and again, during his speech at the World Economic Forum in Davos in 2008. The ideology calls for a new and stronger form of capitalism that goes beyond traditional giving and charity, to address the needs of people in poverty and inequity leveraging market forces and principles. In other words, it works to generate profits and solve the world's inequities while not undermining the fundamental spirit of capitalism.

### Our Vision for Social Contribution and Key Activities



**Organizational Chart for Social Volunteer Group**



**ORGANIZATION FOR SOCIAL CONTRIBUTION**

The commitment for social contribution has always stayed with LG Chem throughout its history, directed by a corporate culture that stresses autonomy and creativity, LG Chem embarked on a journey towards corporate citizenship, first providing support to the employees for their self-initiated group gatherings and volunteer service. Our journey came to make a significant progress in 2004 when 'Twin Angel Fund', a matching grant<sup>38)</sup> system for donation, was introduced at LG Chem.

In May 2008, we set up a dedicated division for planning and managing social contribution activities, and staffed new full-time hires to make our work more organized and systematic. Following in July, we officially founded the LG Chem Social Volunteer Group comprising 4 thousand employees with our CEO at the helm, after integrating individual social volunteer groups from 10 plants in Korea. In March 2009, a CSR workshop was held for the relevant, responsible managers to share our strategy for social contribution and best practices at our sites.

▼ **Activities of Social Volunteer Group** ▼

| Year | Number of volunteer groups participated | Total number of activities performed | Total volunteer hours | Number of volunteers participated |
|------|---|--------------------------------------|-----------------------|-----------------------------------|
| 2007 | 82                                      | 782                                  | 4,306                 | 7,423                             |
| 2008 | 82                                      | 1,175                                | 5,056                 | 9,511                             |
| 2009 | 69                                      | 1,085                                | 4,424                 | 7,398                             |

\* Numbers were down in 2009 as activities carried out by LG Hausys, spun off in April 2009, were excluded from the total.

**OPERATION**

LG Chem's social contribution activities include 'LG Chem Social Contribution Project' run directly by a task force team; 'Designated Donation Project' operated with donations; and 'Activities of Social Volunteer Group' consisting of Twin Angel Funds and volunteer works of executives and employees.

■ **LG Chem Social Contribution Projects**

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 summer camps are our outreach programs<sup>39)</sup> that reflect our identity as a chemical company. Through these projects, we provide talented yet underprivileged young students with unique learning opportunities in science along with welfare programs to discover and deepen their potential to become the leaders of tomorrow while promoting science and technology advancement.

■ **Designated Donation Projects**

To build a social safety net for a wider group of underprivileged people in society, LG Chem designates a portion of donations it makes to the Community Chest of Korea for designated donation projects. In 2009, KRW 1.05 billion of a total KRW 2.1 billion donated was used for designated donations such as 'children's library assistance', 'English camp for less fortunate children', and 'musical holidays'. We are maximizing the impact of the projects by matching the beneficiaries with those business operators who can deliver real benefits to the underprivileged.



LG Slogan for Social Contribution



T-shirt for LG Chem Chemistry Camp



Twin Social Volunteer Group



Specialty Polymers/BPA Social Volunteers

### Activities of Social Volunteer Group

Social volunteer group activities consist of voluntary fund raising and volunteer service for local community growth, led by some 4,000 social volunteers of LG Chem.

Apart from various corporate giving and social contribution projects at LG Chem, the 'LG Chem Twin Angel Fund' has been in place 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 basic wage and employees KRW 2,008 (2xKRW 1,004) per account and request donations be deducted from their monthly checks up to 10 accounts. In 2009, 3,761 people or roughly a 45% of our staff in Korea have put money into the Fund, accumulating KRW 500 million every year to be spent for different volunteer causes.

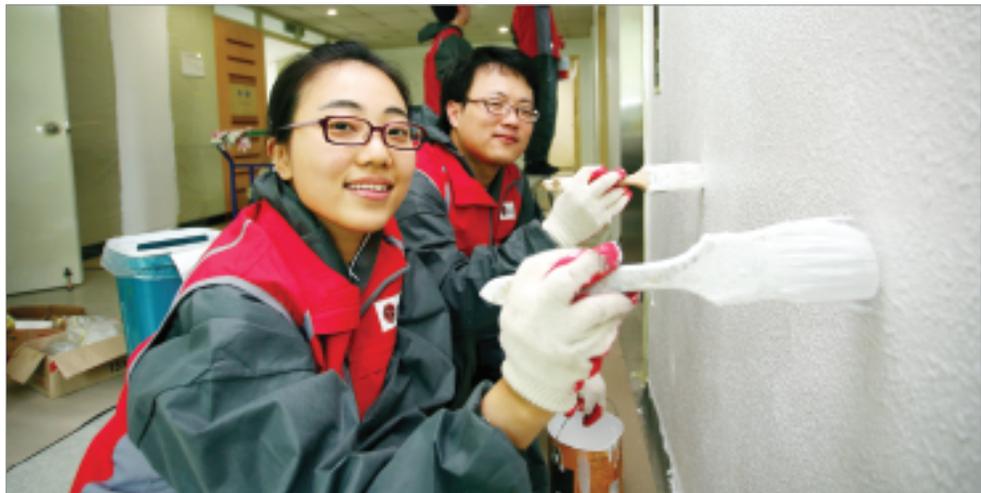
### Employee Fund Raising for Twin Angel Fund

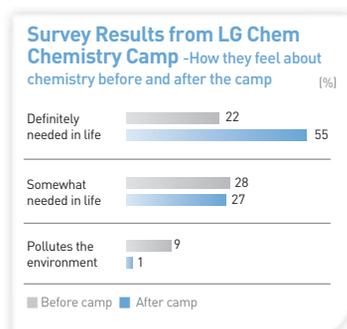
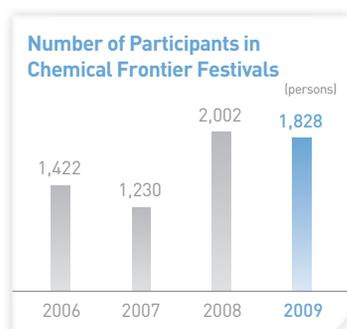
(KRW thousand)

| Description                  | Yeosu       | Cheongju           | Ochang      | Naju       | Iksan        | Techno Park | Sub total |
|------------------------------|-------------|--------------------|-------------|------------|--------------|-------------|-----------|
| Year of inception            | May 2005    | July 2005          | April 2005  | May 2007   | October 2005 | May 2005    |           |
| 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      | 240,763   |
| 2008                         | 117,068     | 42,000             | 39,964      | 4,457      | 13,325       | 37,000      | 253,814   |
| 2009                         | 120,464     | Merged with Ochang | 54,834      | 5,490      | 12,988       | 37,102      | 230,878   |
| Participation rate (persons) | 99% (1,982) | -                  | 44% (1,119) | 100% (219) | 63% (158)    | 28% (283)   | - (3,761) |

\* Due to LG Hausys' spin-off in April 2009, total number of staff participated and funding size went down slightly, and the fund from Cheongju battery plant was integrated with Ochang after the spin-off.

Every year, there are more than 1,000 social volunteer group activities led by a total of 69 social volunteer groups, set up at each unit organization in our 7 plants and one Research Park across Korea. They contribute 4,400 hours of their time for different causes. Their major volunteer services include 'The classrooms of hope', 'junior science class' and 'LG Chem volunteer day'.





Awarding Ceremony for Chemistry Frontier Festival



Junior Science Class

## SECTOR-SPECIFIC ACTIVITIES-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. This program is jointly sponsored by LG Chem, Korea Petrochemical Industry Association, Hanwha Chemical, Samsung Total Petrochemicals Co., SK Energy and Honam Petrochemical Corp and is organized by the Korea Advanced Institute of Science and Technology (KAIST). During the past 6 festivals starting with the first competition in 2004, a total 4,309 teams (of 8,618 students) so far have participated and the number is only growing. Indeed, the festival is now taking hold as the best and biggest competition for the high school students. 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 one of the co-hosting companies.

### Fascinating Chemistry! LG Chem's Chemistry Camp

Our annual chemistry camps are targeted at middle school students to increase relevance and familiarity of chemistry through various chemistry experiments and camp activities during school vacations.

'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. This 3-day event is fun and educational 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 do better at school and as part of a larger group. Such colorful combination of programs has indeed fascinated the participants in the chemistry camps.

### Junior Science Class

The junior science class is a program launched in 2004 for elementary schools and childcare centers in the Daejeon area to help the students experience what science is really like through experiments and practice sessions, capitalizing on scientific knowledge of our researchers at Daejeon Research Park. From 2007, we have been offering over 20 classes every year specifically targeting students who belong to orphanages as they have limited access to various learning opportunities. In May 2009, the science class was held on the sideline of Children's Day events in Daejeon City where some 200 people took part to discover fun in science and experience it through experiments.

The program, planned and run by our researchers through their voluntary involvement, is increasingly being perceived as a professional social contribution activity as it draws on expertise and competence of our highly qualified researchers who hold advanced degrees.

#### ▼ Class Activities ▼

| Year | Schools & Orphanages                            | Number of classes |
|------|---|-------------------|
| 2007 | Daejeon Jahyewon, Sungshim welfare center, etc. | 29                |
| 2008 | Daejeon Jahyewon, Peace village, etc.           | 26                |
| 2009 | Cheonyangwon, Daejeon Hyesangwon, etc.          | 24                |

## WELFARE PROJECTS



The Classrooms of Hope

### ■ The Classrooms of Hope

In July 2008, we formally launched a corporate-level social volunteer group that integrates and systematizes our volunteering work spread out across the head office and local plants.

Our social volunteer group searched for what they could do best as employees of LG Chem after the launch. The systematic effort of the volunteers culminated in a program called 'The Classrooms of Hope' for repairing and renovating youth and children facilities within community welfare centers.

The idea for 'The Classrooms of Hope' comes from the fact that social protection arrangements for the youth, who are socially marginalized, are relatively inferior to those set up for the elderly or the disabled. Our volunteers tapped into their individual job skills to draw wall paintings to inspire the youth and made the youth facilities a better learning environment through renovation. During the 2009 Classrooms of Hope, the volunteers explored other volunteer activities such as bread sharing service and moxa treatment/massage service that could be done together with the teenagers that use the community welfare centers. These activities go a step further from typical volunteer service to more productive ones, instilling dreams and hopes in our children.

This volunteer work has received positive feedback from our volunteers and even greater response from the beneficiaries, as our employees can utilize their unique job competency while the beneficiaries get directly involved and take part in the activities. Starting with a community center in Yeongdeung-po, Seoul, in July 2008, we are now picking two community welfare centers every year from applicants to continue the spirit of this project.



Children/Teenagers Library Projects

### ■ Library Projects for Children and Teenagers

We run a library project for children and teenagers to encourage reading while providing local residents with more cultural space. The library project which began in 2007 runs on an annual budget of KRW 300 million.

We opened children's libraries at two elementary schools and one middle school (Bongjeong and Wadong Elementary Schools and Oksan Middle School) in 2009. We expanded the scope of our projects in 2009 to cover middle schools as well to give access to a wider group of teenagers.

The library project began when LG Chem partnered with Citizen Action for Reading Culture- famous for its 'Miracle Library' projects that were initiated as a public good program of MBC, a national broadcasting station in Korea. We aimed to break the stereotypical image of a library- just long line of tables with uncomfortable, stiff chairs- and to turn it into a multi-purpose, cultural learning space. Adopting a user-friendly approach from design to construction, we have equipped the libraries with multiple recreational facilities and audio-visual aids, and used environment-friendly finishing materials for the students.

Our dedicated effort has led to the establishment of eight such libraries that serve not only as a place where our children and teenagers come to read books, but also as a cultural spot for the local residents and a source of pride for the local communities.

▼ Children/Teenagers Library Projects ▼

| Name of elementary school | Geography                     | Number of students directly benefited | Surface area of the library (㎡) | Year of implementation |
|---------------------------|-------------------------------|---------------------------------------|---------------------------------|------------------------|
| Yeosu Mipyeong            | Yeosu, Jeonnam Province       | 1,240                                 | 193.8                           | 2007                   |
| Yeosu Hwayang             | Yeosu, Jeonnam Province       | 83                                    | 92.5                            |                        |
| Seosan Daejean            | Seosan, Choongnam Province    | 473                                   | 186.0                           | 2008                   |
| Iksan Seokam              | Iksan, Jeonbuk Province       | 81                                    | 90.3                            |                        |
| Naju Naju                 | Naju, Jeonnam Province        | 1,579                                 | 194.1                           |                        |
| Cheongwon Oksan           | Cheongwon, Choongbuk Province | 367                                   | 140.0                           | 2009                   |
| Cheongju Bongjeong        | Cheongju, Choongbuk Province  | 1,570                                 | 206.0                           |                        |
| Daejeon Wadong            | Daedok, Daejeon               | 728                                   | 180.0                           |                        |
| 8 schools in 7 regions    |                               | 6,121                                 | 1,282.7                         |                        |



Musical Holiday



Mecenat Awards 2009



Sharing Brquette for Love

■ Musical Holiday and Mecenat Programs

LG Chem is engaged in a variety of Mecenat programs to broaden access to high arts and culture for the underprivileged people.

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 fusion musical troupe 'Taru' since 2007 to present musical performances for soldiers at the militaries. Total 2,000 soldiers and local residents came to watch 4 musical performances in the remote areas of Ul-leung Island, Baengnyeong Island and Gangwon Province.

Moreover, 'Fun Ticket Sharing' project started across the country in 2006 to give the less fortunate a chance to come to concerts and performances. In 2008 alone, we offered cultural and artistic opportunities to 9,321 young students from low-income families to enrich their lives and help them pursue their dreams as artists. Our 'School Concert' is especially popular among students as we go to the schools to hold cultural performances for them. Our devoted endeavors towards promoting cultural enrichment of our communities has given the company an honor of winning a 'cultural management award' at Mecenat Awards 2009, despite a short history of only 3 years.

■ Sharing Brquette for Love

To lend a helping hand to our neighbors whose lives have been severely impacted by recession and inflation, our Yeosu plant draws into an employee fund to buy 20,000 sheets of briquettes (worth KRW 14 million) every December and take their personal time to deliver them to low-income families, especially starting with families on welfare. This volunteer activity was given a name 'Sharing Brquette for Love' in 2008 and was undertaken by 200 people from 13 volunteer groups at the Yeosu plant.

## LOCAL COMMUNITY SUPPORT



LG Chem Volunteer Day

### ■ LG Chem Volunteer Day

With the third Saturday of September designated as the 'LG Chem Volunteer Day', volunteers from the Yeosu plant get together to provide 'customized volunteer service' for local communities. Our volunteers visit the communities with poor social infrastructure, e.g., remote islands or neighborhoods with a high concentration of low-income families, to identify in advance what community support would be practically needed for the local residents to provide tailored volunteer services that cater to the needs of the beneficiaries.

During the Volunteer Day on September 25, 2009, some 110 volunteers from community support groups at Yeosu plant took part in helping out the local communities. 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 pest control. In addition, our Naju plant celebrates Thursday of the third week every month as 'I Love NAJU Day' to render service that meets the local needs. They include environmental campaigns for local mountains and rivers, Kimchi-making service, road clean-up and pear harvesting.



Sister Alliance for Villages and Streams

### ■ Sister Alliance for Villages and Streams

LG Chem is involved in a variety of community support service with keen interest in protecting our natural environment and biodiversity. In particular, our Cheongju plant supports the Hwagye Village (Gangseo 2-dong, Heungduk-gu, Cheongju City) through a sister alliance- the plant assists the village during annual rice-seeding 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.

### ■ Meal Service for Poor Children & Sponsorship for Youth Families

The Yeosu plant has been sponsoring a meal service project for poor children who are not well fed in the local community. Ever since 2008, the plant has been appropriating KRW 36 million every year to sponsor meal service to 100 undernourished children in the area. In addition, the Ochang Techno Park and Cheongju plant support 50 youth families with KRW 27 million every year. This donation is all the more meaningful as it draws into Twin Angle Fund and Matching Grants that our employees have raised by themselves. Understanding that support should be more than just financial, we throw year-end Christmas parties for those children benefiting from the program to share the warmth and the spirit of holidays together.

### ■ Children's Day Festival & School Uniform Support

Every year, the Daejeon Research Park celebrates Children's Day with children from youth families and welfare facilities. This year, some 300 underprivileged children were invited to the Expo Science Park and received gifts. Around KRW 20 million from Twin Angel Fund was used to buy school uniforms for 154 students from poor families. Our Research Park was given the honor of receiving the President's citation for 2009 Children's Day in recognition for its endeavors to social contribution for the local youth.



Children's Day Festival



Kimchi-making Service

### Other Local Community Contributions

We provide a range of community services based on sister alliances. For example, 'Vitamin Volunteer Project', 'Battery Love 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 to make Kimchi as well as sponsoring goods and performing renovation work throughout different seasons. All the departments at the Naju plant have sister ties with the needy neighbors in the community to give them basic commodities and living expenses on a regular basis. In addition, the Iksan plant grants scholarship to high-performing students from low-income brackets and the employees volunteer their time to climb mountains with the disabled. Our plants across Korea are actively engaged with the local communities to grow and prosper together through understanding the needs and communicating actively with the local residents.



- **Project name:** University scholarship project
- **Duration:** From 2005 onwards
- **Scholarship:** Beijing University, Tsinghua University
- **Beneficiaries:** Universities in Shanghai, Nanjing, Ningbo, Tianjin

## GLOBAL SOCIAL CONTRIBUTION

### Scholarship Programs

Our global talent scholarship programs set sail in earnest from 1996, first with Beijing University and Tsinghua University in China. We deployed scholarship programs in 2008 at Beijing University, Tianjin University, Nankai University, 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 (equivalent to approximately KRW 100 million) each year. Starting 2008, our subsidiary LGCE TP in Taiwan 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 the recipients in the future.



- **Project name:** I Love Ningbo
- **Duration:** From 2003 onwards
- **Activities:** Visits to orphanages and senior homes  
Environmental campaigns  
Cultural events for local residents  
Blood drive, fund raising for SARS victims

### Local Communities

LG Yongxing-our manufacturing subsidiary in Ningbo, China- has been solidifying its presence as a global business that grows together with the local community through 'I Love Ningbo' campaign since 2003. LG Yongxing employees visited senior care homes during China's special holidays such as the Lunar New year and Thanksgiving, and delivered goods and money to the senior citizens. The employees donated computers and other learning equipment to nearby schools as well. LG Yongxing 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 manufacturing subsidiary LGCE GZ in Guangzhou, China built a library for a local primary school in 2007 and has been giving books and school supplies every year. Moreover, the employees have taken the initiative in reaching out to orphanages and senior homes every year to provide them with basic commodities, since 2005.



- **Project name:** Tree planting project
- **Duration:** From 2006 onwards
- **Activities:** Participation in tree-planting events held in Tanggu, Tianjin

### Environmental Campaign/Emergency Relief

LG Dagou-our manufacturing subsidiary in Tianjin has been engaged in tree planting work 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, 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 (a cooperative body for executives and employees) and contributed their time for volunteer service.

History of Global Social Contribution

- Major Activities**
- **1996**  
Global talent development scholarship project (Beijing and Tsinghua University)
  - **2003**  
I Love Ningbo Campaign
  - **2004**  
Expansion of scholarship programs in line with the launch of a holding company
  - **2006**  
Tree-planting activity at a forestry park in Tanggu

▼ Main Social Contribution Activities by Overseas Subsidiary ▼

| Subsidiary                 | Main Social Contribution Activities   |
|----------------------------|---|
| LG DAGU (Tianjin, China)   | Scholarship (Tianjin, Nankai University)  |
|                            | Urban landscaping support (Street lights, safety devices)                       |
|                            | Environmental preservation (Tree planting event at a forestry park in Tanggu)   |
| LG YX (Ningbo, China)      | PR activities for fire safety   |
|                            | I Love Ningbo-Consolatory visit to nursing homes, library construction          |
|                            | Public facility construction (Goryeo History Pavilion)                          |
|                            | Sports and culture events (Sports competition among foreign-invested companies) |
| LGCC GZ (Guangzhou, China) | Charity (Charity Council of the Zhenhai District)                               |
|                            | Scholarship (Sun Yat-Sen, South China University of Technology)                 |
|                            | Library construction and book donation  |
|                            | Consolatory visits to orphanages/senior homes                                   |
|                            | Fund raising for co-workers in need   |
| LGCI TJ (Tianjin, China)   | Scholarship (Tianjin University)  |
|                            | Assistance for orphanages/nursing homes   |
|                            | Fund raising for community partnership drive                                    |
| LGCE BJ (Beijing, China)   | Donation for community partnership drive (Donating used clothes)                |
|                            | Tree planting and urban landscaping support                                     |
| LGCE TP (Taipei, Taiwan)   | "LG Love" Scholarship   |

Interview



UN Global Compact Korea Network Secretary-General, Chul-Ki Ju

This year's sustainability report from LG Chem illustrates clearly the organization's dedication to "Jeong-Do" Management through the policies it adopts and the actions it takes. LG Chem has put in place the Code of Ethics and enforced them on its overseas business locations in 14 countries as well as its supply chain. With the Ethics Secretariat directly placed under the CEO and ethics offices installed at each business site, LG Chem demonstrates its enthusiasm for "Jeong-Do" Management. To be more specific, their firm commitment to ethical practices and anti-corruption are well represented in a wide range of activities they undertake, namely, their regular anti-corruption trainings, operation of ethics hotline, annual signing of the oath of "Jeong-Do" Management, surveys, etc.

In selecting suppliers, in particular, LG Chem looks for those suppliers who have environmental, safety and ethical integrity embedded in their practices and manages them on an on-going basis through a supplier evaluation system. This

focus is consistent with other leading companies in their pursuit of aligning their supply chain with sustainability value. In addition, it is also meaningful that LG Chem runs compliance programs and utilizes an internal subcontractor review council to rule out any unfair trade or irregularities in transactions. However, when LG Chem checks for potential risks in sectors such as business or investment, it is well advised that the company looks into those risks associated with "Jeong-Do" Management and anti-corruption as part of their indirect risks.

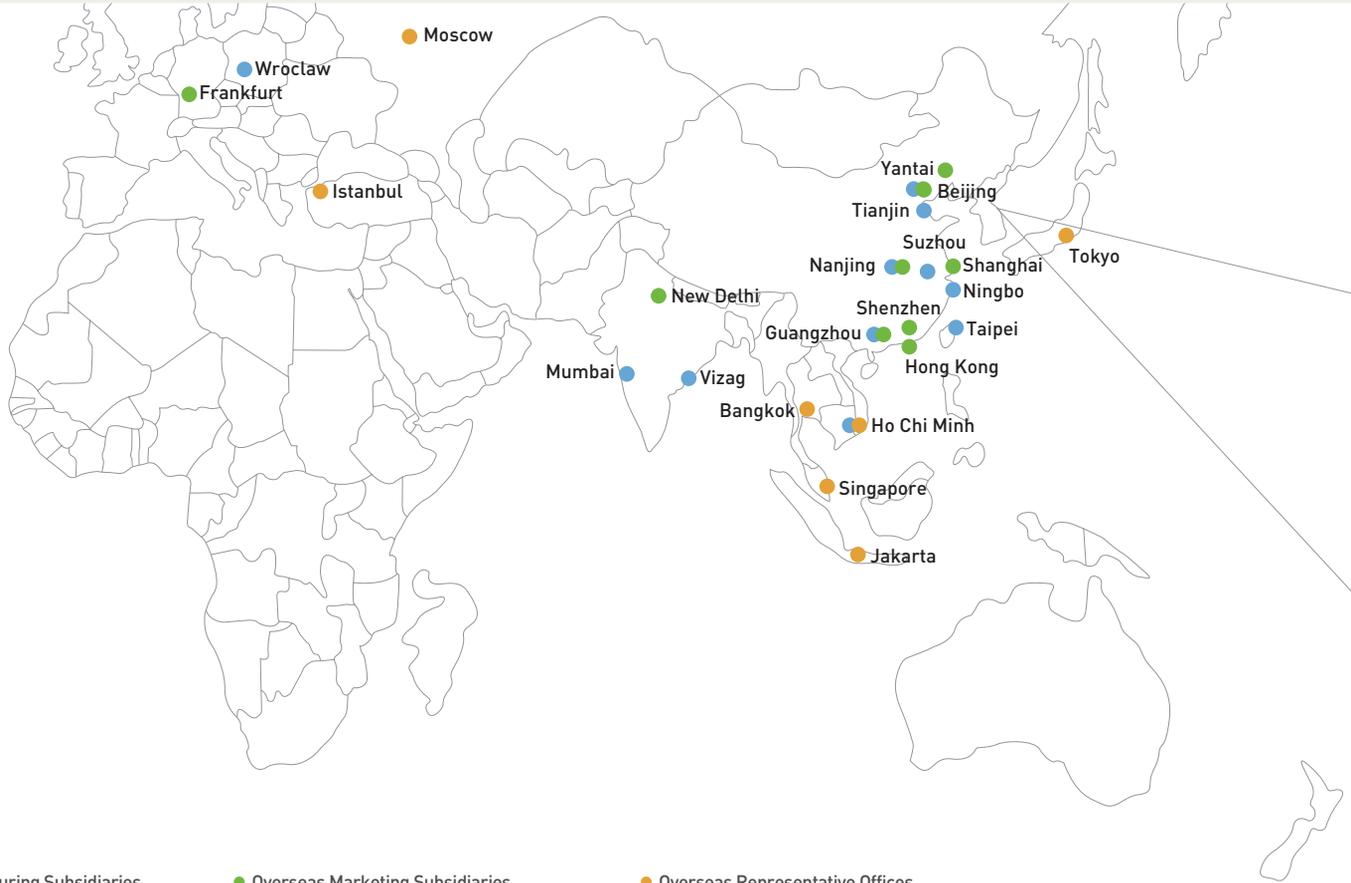
In the society sector, what LG Chem does merits attention as best practice. Defining its relation with the labor union as horizontal, LG Chem upholds a vision of labor-management partnership as can be shown in its annual publication of welfare guidelines, a quarterly labor-management council and a joint taskforce operated with the union, while making progress in the three-dimensional model for labor-management relations. As LG Chem's report is using the GRI guidelines, however, it would be desirable if more emphasis was placed on the reference to respecting the principle of human rights.

LG Chem is engaged in a large number of activities for social contribution. As such, I recommend LG Chem to clearly define the relationship between their social contribution work, especially those done overseas, and the Millennium Development Goals (MDG) of the UN in the future. Lastly, I expect LG Chem to take a more active part in the UN Global Compact activities, led together with the UN globally in the areas of human rights, labor, environment and anti-corruption, as an enterprise that faithfully fulfills its role as a social responsible company.

## APPENDIX

|                                 |    |
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| GRI INDEX                       | 86 |
| EICC CHECKLIST                  | 89 |
| GLOSSARY                        | 91 |
| COMPANY MILESTONES              |    |
| READER FEEDBACK QUESTIONNAIRE   |    |

# GLOBAL NETWORK



**● Overseas Manufacturing Subsidiaries**

| Company Name  | Location       |
|---|----------------|
| Tianjin LG DAGU Chemical Co., Ltd.                              | Tianjin        |
| Tianjin LG Bohai Chemical Co., Ltd.                             | Tianjin        |
| Ningbo LG Yongxing Chemical Co., Ltd.                           | Ningbo, Suzhou |
| LG Chemical (Guangzhou) Engineering Plastics Co., Ltd.          | Guangzhou      |
| 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, Vizag  |
| LG VINA Chemical J/V Company                                    | Ho Chi Minh    |

**● Overseas Marketing Subsidiaries**

| Company Name                      | Location  |
|-----------------------------------|---|
| LG Chem China Investment Co., Ltd | Beijing<br>Shanghai<br>Guangzhou<br>Nanjing<br>Yantai |
| LG Chem Hong Kong Ltd.            | Hong Kong   |
| LG Chemical India Private Ltd.    | Shenzhen<br>New Delhi<br>New York<br>Los Angeles      |
| LG Chem America, Inc.             | Chicago<br>Austin<br>Houston                          |
| LG Chem Brasil, Ltd.              | Sao Paulo   |
| LG Chem Europe GmbH               | Frankfurt   |

**● Overseas Representative Offices**

| Company 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   |

**● Overseas R&D Center**

| Company Name       | Location |
|--------------------|----------|
| Compact Power Inc. | Troy     |

Appendix

● Manufacturing Subsidiary ● Marketing Subsidiary ● R&D Center ● Representative Office ● Plants in Korea



● Business Sites in Korea

**Daesan Plant**  
 Established in 2005  
 679-13 Daejuk-Li, Daesan-Eup, Seosan City, Choongnam  
 Area: 1,297,477 m<sup>2</sup>  
 Products: VCM, PVC, Ethylene, Propylene, Benzene, BD, PE, PP, Synthetic Rubbers, etc.



**Ochang Techno Park**  
 Established in 2005  
 1114-1 Namchon-Li, Oksan-Myeon, Cheongwon-Gun, Choongbuk  
 Area: 248,209 m<sup>2</sup>  
 Products: Rechargeable Batteries, Optical Materials, etc.



**Ulsan Plant**  
 Established in 1974  
 388 Mangyang-Li, Onyang-Eup, Ulju-Gun, Ulsan City  
 Area: 12,161 m<sup>2</sup>  
 Products: Plasticizers



**Research Park**  
 Established in 1979  
 104-1 Moonji-Dong, Yooseong-Bu, Daejeon City  
 Area: 85,530 m<sup>2</sup>  
 Products: New materials research & development



**Yeosu Plant**  
 Established in 1976 (Hwachi), 1991 (Yongseong)  
 70-1 Hwachi-Dong, Yeosu City, Jeongnam  
 Area: 991,735 m<sup>2</sup>  
 Products: Ethylene, Propylene, PE, BTX, PVC, ABS, VCM, Acrylate, Specialty Polymers/BPA



**Gimcheon Plant**  
 Established in 2008  
 1348-1 Daegwang-Dong, Gimcheon City, Gyeongbuk  
 Area: 24,800 m<sup>2</sup>  
 Products: Super Absorbent Polymers (SAP)



**Iksan Plant**  
 Established in 1991  
 599 Yongje-Dong, Iksan City, Jeongbuk  
 Area: 94,636 m<sup>2</sup>  
 Products: ABS Compounds, Engineering Plastics, etc.



**Naju Plant**  
 Established in 1984  
 1 Songwol-Dong, Naju City, Jeonnam  
 Area: 562,793 m<sup>2</sup>  
 Products: Octanol, Butanol, Plasticizers, Acrylic Acids



**Cheongju Plant**  
 Established in 1980  
 150 Songjeong-Dong Hongdeok-Gu, Cheongju City, Choongbuk  
 Area: 226,490 m<sup>2</sup>  
 Products: Rechargeable Batteries, Polarizers



## INDEPENDENT ASSURANCE STATEMENT

To readers of LG Chem's 2009 Sustainability Report,

Business Institute for Sustainable Development (hereinafter referred to as "BISD") has been engaged by LG Chem to assure its 2009 Sustainability Report (hereinafter referred to as "the Report") as a "third-party assurance provider". BISD carried out assurance engagement on specific information contained in this Report and would hereby like to present our assurance opinion as stated below.

### ASSURANCE METHODOLOGY AND SCOPE

LG Chem describes in the Report its sustainability management activities, relevant endeavors and accomplishments as well as future plans. Our assurance engagement was focused on the following points:

- Assurance on integrity: Review whether financial performance data has been appropriately extracted from LG Chem's audit report on its 2009 financial statements.
- Assurance on credibility: Review whether information contained in the sections of sustainability system, environment and society, properly reflect actual data and raw information to ensure accuracy and consistency.

### RESPONSIBILITY AND INDEPENDENCE

The responsibility for preparing this Report lies with the management of LG Chem. The responsibility of BISD is to carry out assurance procedures on information in the Report as specified in the assurance scope, and issue an assurance statement.

BISD has not taken any part in drawing up this Report. In addition, 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 and autonomy from the Company.

### ASSURANCE STANDARDS

BISD performed assurance engagement on the agreed scope of assurance in accordance with LG Chem's internal reporting standards for sustainability and performance indicators, and additionally took into consideration, three main principles of AA1000 Assurance Standard (AS 2008) (namely, materiality, completeness and responsiveness) as well as reporting principles and indicator protocols of Global Reporting Initiative (GRI) G3 guidelines.

### KEY ASSURANCE PROCEDURES

Our assurance procedures include the activities as described below:

- Review of media coverage on LG Chem;
- Review whether LG Chem's internal sustainability reporting standards were applied to the Report;
- Review of information contained in the Korean version of the Report and information gathering process;
- Review of materiality test, information, policies and system related to key issues in the Report;
- Verification of environmental/safety data through site visits, interviews with relevant personnel (Yeosu Plant);
- Interviews with personnel in charge of daily operation of sustainability management, Report writing and editing (HQ);
- And, study on external expert opinions on sustainability management.

## ASSURANCE OPINIONS

BISD offered its opinions based on results of our draft review of the Report, personnel interviews and site visits, etc., with the contents of the Report revised as needed afterwards. BISD reviewed the final version of the Report and hereby presents our final assurance opinion as follows based on the assurance activities performed:

- BISD compared the Report against LG Chem's 2009 financial statements, and found that financial performance data presented in the Report has been appropriately derived from the 2009 unconsolidated financial statements of LG Chem;
- And, nothing has come to our attention that causes us to believe that information in sustainability system, environmental and social sections is inappropriately described, and no material errors were found.

## RECOMMENDATIONS FOR IMPROVEMENT

We provide the following recommendations for improvement in the extent that does not affect the results of this assurance.

- LG Chem is reporting its performance in economy, environment and society in a faithful manner. We expect that the Company will provide a closer link between such performances and their sustainability management strategy and system in the next report.
- LG Chem has augmented its materiality analysis process for this Report with reference to international SRI standards and industry-specific regulations. We recommend that LG Chem will continue its effort in making its materiality analysis process even more robust in the future.
- Stakeholder engagement is perceived as a critically important part of sustainability management. As such, we recommend that LG Chem will continuously expand its various stakeholder communication activities and report the results going forward.



**Tae-Jin Park**  
President

Business Institute for Sustainable Development  
Korea Chamber of Commerce & Industry



## GRI INDEX

| GRI Index                               | Indicators   | Page                  | Reason for Omission | Futher Explanation                |
|---|--|-----------------------|---------------------|-----------------------------------|
| 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, 82, 83             |                     |                                   |
|   | 2.4 Location of organization's headquarters  | 1, 82, 83             |                     |                                   |
|   | 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                    | 82, 83                |                     |                                   |
|   | 2.6 Nature of ownership and legal form   | 14                    |                     |                                   |
|   | 2.7 Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries)  | 1, 29, 30, 31         |                     |                                   |
|   | 2.8 Scale of the reporting organization  | 1, 29, 30, 31         |                     |                                   |
|   | 2.9 Significant changes during the reporting period regarding size, structure, or ownership  | 8, 9                  |                     |                                   |
|   | 2.10 Awards received in the reporting period   | 9                     |                     |                                   |
| Report Parameters                       | 3.1 Reporting period (e.g., fiscal/calendar year) for information provided   | 6                     |                     |                                   |
|   | 3.2 Date of most recent previous report (if any)   | 6                     |                     |                                   |
|   | 3.3 Reporting cycle (annual, biennial, etc.)   | 6                     |                     |                                   |
|   | 3.4 Contact point for questions regarding the report or its contents   | 1                     |                     |                                   |
|   | 3.5 Process for defining report content  | 6, 7                  |                     |                                   |
|   | 3.6 Boundary of the report   | 6                     |                     |                                   |
|   | 3.7 State any specific limitations on the scope or boundary of the report  | 6                     |                     |                                   |
|   | 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 | 6                     |                     |                                   |
|   | 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  | Details per indicator |                     |                                   |
|   | 3.11 Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report  | 7                     |                     |                                   |
|   | 3.12 Table identifying the location of the Standard Disclosures in the report  | 86, 87                |                     |                                   |
|   | 3.13 Policy and current practice with regard to seeking external assurance for the report  | 6, 84, 85             |                     |                                   |
| Governance, Commitments, and Engagement | 4.1 Governance structure of the organization   | 14, 15                |                     |                                   |
|   | 4.2 Indicate whether the Chair of the highest governance body is also an executive officer   | 14, 15                |                     |                                   |
|   | 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  | 14                    |                     |                                   |
|   | 4.4 Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body   | 14, 20                |                     |                                   |
|   | 4.5 Linkage between compensation for members of the highest governance body, senior managers, executives, and the organization's performance   |                       | Not allowed         | Confidential business information |
|   | 4.6 Processes in place for the highest governance body to ensure conflicts of interest are avoided   | 14                    |                     |                                   |
|   | 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                     | 14, 15                |                     |                                   |
|   | 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                        | 12, 13, 44, 72        |                     |                                   |
|   | 4.9 Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance   | 14                    |                     |                                   |
|   | 4.10 Processes for evaluating the highest governance environmental, and social performance   | 15                    |                     |                                   |
|   | 4.11 Explanation of whether and how the precautionary approach or principle is addressed by the organization   | 22, 23, 24, 25        |                     |                                   |
|   | 4.12 Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses  | 1, 46, 47, 51         |                     |                                   |
|   | 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  | 7                     |                     |                                   |
|   | 4.15 Basis for identification and selection of stakeholders with whom to engage  | 7                     |                     |                                   |
|   | 4.16 Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group  | 7                     |                     |                                   |
|   | 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                          | 7                     |                     |                                   |

Appendix

| GRI Index  | Indicators   | Page           | Reason for Omission | Further Explanation  |
|--|--|----------------|---------------------|--|
| Disclosure on Management Approach  | EC Economy   | 12, 28         |                     |  |
|  | EN Environment   | 44, 45         |                     |  |
|  | LA Labor Practices & Decent Work   | 65             |                     |  |
|  | HR Human Rights  | 60             |                     |  |
|  | SO Society   | 72             |                     |  |
| Economy  | PR Product Responsibility  | 37, 38         |                     |  |
|  | EC1 Direct economic value generated and distributed  | 29, 30, 31     |                     |  |
|  | EC2 Financial implications and other risks and opportunities for the organization's activities due to climate change   | 50, 51         |                     |  |
|  | EC3 Coverage of the organization's defined benefit plan obligation   |                | Not available       | To be incorporated later   |
|  | EC4 Significant financial assistance received from government  |                | Not material        | No case  |
|  | EC6 Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation   |                | Not applicable      | Not applicable, given the reporting scope (domestic businesses)  |
|  | EC7 Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation   | 63, 64         |                     |  |
|  | EC8 Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement                  | 75, 76, 77     |                     |  |
| Environment  | EN1 Materials used by weight or volume   | 48             |                     |  |
|  | EN2 Percentage of materials used that are recycled input materials   | 48             |                     |  |
|  | EN3 Direct energy consumption by primary energy source   | 51             |                     |  |
|  | EN4 Indirect energy consumption by primary source  | 51             |                     |  |
|  | EN8 Total water withdrawal by source   | 48             |                     |  |
|  | EN11 Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas                           |                | Not material        | Relevance between business activities of a reporting organization and indicator contents are not material          |
|  | EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas    | 78             |                     |  |
|  | EN16 Total direct and indirect greenhouse gas emissions by weight  | 52             |                     |  |
|  | EN17 Other relevant indirect greenhouse gas emissions by weight  | 52             |                     |  |
|  | EN19 Emissions of ozone-depleting substances by weight   |                | Not material        | No emission of ozone-destroying substances   |
|  | EN20 NOx, SOx, and other significant air emissions by type and weigh   | 49             |                     |  |
|  | EN21 Total water discharge by quality and destination  | 48, 49         |                     |  |
|  | EN22 Total weight of waste by type and disposal method   | 48             |                     |  |
| EN23 Total number and volume of significant spills   |  | Not material   | No case             |  |
| EN26 Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation                                   | 40, 48   |                |                     |  |
| EN27 Percentage of products sold and their packaging materials that are reclaimed by category  |  | Not applicable | No case             |  |
| EN28 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations |  | Not material   | No case             |  |
| Labor Practices & Decent Work  | LA1 Total workforce by employment type, employment contract, and region  | 63             |                     |  |
|  | LA2 Total number and rate of employee turnover by age group, gender, and region  | 62, 63         |                     |  |
|  | LA4 Percentage of employees covered by collective bargaining agreements  |                | Not allowed         | Confidential business information  |
|  | LA5 Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements   | 66             |                     |  |
|  | LA7 Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region  | 68             |                     |  |
|  | LA8 Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases | 67, 68, 69     |                     |  |
|  | LA10 Average hours of training per year per employee by employee category  | 62             |                     | Not appropriate to sort by per capita training hour as there is a variety of programs by position and job function |

# GRI INDEX

| GRI Index   | Indicators   | Page   | Reason for Omission | Further Explanation |
|---|--|--|---------------------|---------------------|
|   | LA13 Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity                               | 15, 62, 63   |                     |                     |
|   | LA14 Ratio of basic salary of men to women by employee category  | 31   |                     |                     |
| Human Rights  | HR1 Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening   | 70   |                     |                     |
|   | HR2 Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken  | 70   |                     |                     |
|   | HR4 Total number of incidents of discrimination and actions taken  |  | Not material        | No case             |
|   | 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                          | 66   |                     |                     |
|   | HR6 Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor  | 60   |                     |                     |
|   | HR7 Operations identified as having significant risk for incidents of forced or compulsory labor   | 60   |                     |                     |
|   | 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 | 79                  |                     |
| S02 Percentage and total number of business units analyzed for risks related to corruption                                      |  |  | Not material        | No case             |
| S03 Percentage of employees trained in organization's anti-corruption policies and procedures                                   |  | 17   |                     |                     |
| S04 Actions taken in response to incidents of corruption  |  | 17, 18, 19   |                     |                     |
| S05 Public policy positions and participation in public policy development and lobbying   |  |  | Not material        | No case             |
| S08 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations |  |  | Not material        | No case             |
| Product Responsibility  | PR1 Lifecycle stages in which safety and health impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures | 37, 38, 39   |                     |                     |
|   | PR3 Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements   | 39, 40   |                     |                     |
|   | PR6 Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship  | 18, 19   |                     |                     |
|   | PR9 Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services   |  | Not material        | No case             |

| Report Application Level | C  | C+   | B                         | B+  | A                         | A+  |                           |
|--------------------------|--|--|---------------------------|---|---------------------------|---|---------------------------|
| Standard Disclosures     | G3 Profile Disclosures<br>OUTPUT   | Report on :<br>1.1<br>2.1-2.10<br>3.1-3.8, 3.10-3.12<br>4.1-4.4, 4.14-4.15   | Report Externally Assured | Report on all criteria listed for Level C Plus :<br>1.2<br>3.9, 3.13<br>4.5-4.13, 4.16-4.17   | Report Externally Assured | Same as requirement for Level B   | Report Externally Assured |
|                          | G3 Management Approach Disclosures<br>OUTPUT                                   | Not Required   | Report Externally Assured | Management Approach Disclosures for each Indicator Category   | Report Externally Assured | Management Approach Disclosures for each Indicator Category   | Report Externally Assured |
|                          | G3 Performance Indicators & Sector Supplement Performance Indicators<br>OUTPUT | Report on a minimum of 10 Performance Indicators, including at least one from each of : Economic, Social and Environmental | Report Externally Assured | Report on a minimum of 20 Performance Indicators, at least one from each of Economic, Environmental, Human rights, Labor, Society, Product Responsibility | Report Externally Assured | Report on each G3 and Sector Supplement Indicator with due regard to the Materiality Principle by either : a) reporting on the Indicator or b) explaining the reason for its omission | Report Externally Assured |



### Declaration of GRI G3 Guideline Application Level

LG Chem declares that this report has been prepared in accordance to the GRI G3 Guideline and it meets the level of 'A+' in terms of its application of the guideline. A third-party institute has also verified that this report conforms to the 'A+' level of the GRI G3 Guideline application levels.

## EICC CHECKLIST

| Category   | Description  | Page  | Reason for Omission    | Futher Explanation |                |         |
|--|--|---|------------------------|--------------------|----------------|---------|
| CB- Basic Company Information  | CB1-Customer Designation   | Information on whether a company manufactures products or produces consumer goods   | 1                      |                    |                |         |
|  | CB2-Company Contact Information  | Company name, mailing address and contact name  | 1                      |                    |                |         |
|  | CB3-Supplier Company Characteristics   | Principal business type   | 1                      |                    |                |         |
|  |  | Company ownership structure   | 14                     |                    |                |         |
| Total number of employees  |  | 1   |                        |                    |                |         |
|  | Annual sales revenue   | 1   |                        |                    |                |         |
|  | Countries where the company has operating and manufacturing facilities   | 82, 83  |                        |                    |                |         |
| CL- Labor Management and Ethical Conduct   | CL1-Management Accountability for Labor & Ethics   | Management representative   | 2, 3                   |                    |                |         |
|  |  | Relevant awards received  | 9                      |                    |                |         |
|  |  | Membership in relevant organizations  | 1                      |                    |                |         |
|  | CL2-Labor and Ethics Policy & Procedures<br>CL3-Labor/Ethics Management System Status  | Establishment and application of labor policy/ethics policy, sharing of the policy within organization, the scope of the policy, application of the policy to the suppliers |                        | 16, 17, 18, 19, 65 |                |         |
| A management systems approach for labor  |  |   | 65                     |                    |                |         |
| A management systems approach for ethics   |  |   | 16                     |                    |                |         |
|  |  | Labor and ethics management certification   | 60                     |                    |                |         |
| Freely chosen employment, child labor avoidance, working hours, wages and benefits, humane treatment, non-discrimination, freedom of association |  |   | 60                     |                    |                |         |
| Business integrity, no improper advantage, transparent disclosure of information, fair business practices, protection of identity                |  |   | 17, 18, 19, 36         |                    |                |         |
| Establishment of a system to ensure continuous improvement in labor and ethics management  |  |   | 16, 65, 66             |                    |                |         |
| CL4- Labor/Ethics Management System Elements   | A tracking system for monitoring relevant practices  |   | 16, 66                 |                    |                |         |
|  | Performance objectives for labor/ethics issues, internal audits and assessments, preventive measures and stakeholder communication |   | 16, 17, 18, 19, 65, 66 |                    |                |         |
| CH- Health, Safety and Environmental Management  | CH1-Management Accountability and History for HS&E   | Management representative   | 2, 3                   |                    |                |         |
|  |  | Relevant awards received  | 9                      |                    |                |         |
|  |  | Relevant incidents occurred   | 68                     |                    |                |         |
|  | CH2-Health, Safety and Environmental (HS&E) Policy and Procedures  | Establishment and application of a HS&E policy, sharing of the policy within organization, the scope of the policy, application of the policy to the suppliers              |                        | 44, 67, 71         |                |         |
| CH3-HS&E Management System Status  |  | HS&E management system certification  | 47                     |                    |                |         |
|  | A management system approach for HS&E  |   | 44, 45, 67             |                    |                |         |
|  | The scope and the level of application of HS&E management  |   | 24, 48, 49, 67         |                    |                |         |
| CH4-HS&E Management System Elements  | A tracking system for monitoring relevant regulations  |   | 45                     |                    |                |         |
|  | Performance objectives for HS&E issues, internal audits and assessments, preventive actions and stakeholder communication          |   | 46                     |                    |                |         |
| FB- Basic Facility Information   | FB1- Customer Designation  | Equivalent to CB1-CB3   | 1, 14, 82, 83          |                    |                |         |
|  | FB2-Supplier Facility Contact Information  | Equivalent to CB 3  | 1, 14, 82, 83          |                    |                |         |
|  | FB3-Supplier Facility Characteristics  | Equivalent to CB3   | 1, 14, 82, 83          |                    |                |         |
| FL- Labor Management and Ethical Conduct   | FL1-Facility Contact Information for Labor and Ethics  | Equivalent to CB2   | 1                      |                    |                |         |
|  | FL2-Management Accountability and History  | Management representative   | 2, 3                   |                    |                |         |
|  |  | Violations and corrective actions taken   |                        |                    | Not applicable | No case |
|  | FL3-Labor and Ethics Policy & Procedures   | Relevant policies and their scope   |                        | 60, 65             |                |         |
|  |  | Employment of temporary contract workers  |                        |                    | Not applicable | No case |
|  |  | Application to suppliers  |                        | 70                 |                |         |
|  | Community assistance programs, supporting education  |   | 75, 78, 79             |                    |                |         |
|  | FL4-Freely Chosen Employment   | Systematic procedures for foreign workers and retirement  |                        | 63, 64             |                |         |
|  | FL5-Child Labor Avoidance  | Regulations, procedures and information management regarding child labor avoidance  |                        | 60                 |                |         |
|  | FL6-Working Hours  | Compliance with a legal limit on working hours  |                        | 60                 |                |         |
| FL7-Wages and Benefits   | An appropriate level of wage payment and welfare benefits  |   | 61, 64                 |                    |                |         |
| FL8-Humane Treatment   | Prevention of harassment, coercion, threatening behavior and abuse against workers   |   | 60                     |                    |                |         |
| FL9-Non-Discrimination   | Ensuring and applying anti-discrimination  |   | 60                     |                    |                |         |

## EICC CHECKLIST

| Category  | Description   | Page   | Reason for Omission    | Futher Explanation |
|---|---|--|------------------------|--------------------|
|   | FL10-Freedom of Association                                     | Ensuring workers to create or join labor organizations   | 66                     |                    |
|   | FL11-Ethical Business Practices                                 | Ensuring prevention of bribery/corruption, promoting fair trade  | 17, 18, 19             |                    |
|   | FL12-Facility Labor/Ethics Management System Status             | Relevant certification and continuous improvement procedures   | 16, 66                 |                    |
|   | FL13-Labor/Ethics Management System Elements                    | Equivalent to CL4  | 16, 17, 18, 19, 65, 66 |                    |
| FH- Health, Safety and Environmental Management | FH1-Facility Contact Information for HS&E                       | Equivalent to CB1-CB3  | 1, 14, 82, 83          |                    |
|   | FH2-Management Accountability and History for HS&E              | Equivalent to CH1  | 2, 3, 9                |                    |
|   | FH3-Health, Safety and Environmental (HS&E) Policy & Procedures | Equivalent to CH2  | 44, 67, 71             |                    |
|   | FH4-Occupational Safety and Machine Safeguarding                | Preventive measures to prepare for possible safety hazards in the production process                         | 67                     |                    |
|   | FH5-Emergency Preparedness                                      | Prevention and response programs for emergency situations  | 24                     |                    |
|   | FH6-Occupational Injury/Illness and Physically Demanding Work   | Assistance for preventing occupational injuries and illnesses, including insurance coverage                  | 68, 69                 |                    |
|   | FH7-Industrial Hygiene  | Chemical materials management and worker safety  | 55                     |                    |
|   | FH8-Living Conditions   | Welfare benefits and supportive facilities for workers   | 64                     |                    |
|   | FH9-Environmental Permits                                       | Responding to government requirements for environmental permits  | 48, 49                 |                    |
|   | FH10-Pollution Prevention                                       | Pollution and waste management and reduction efforts, energy management                                      | 48, 49, 50, 51         |                    |
|   | FH11-Hazardous Substances                                       | Safety management when handling hazardous substances   | 55                     |                    |
|   | FH12-Wastewater & Solid Waste                                   | Wastewater management and waste treatment  | 16, 66                 |                    |
|   | FH13-Airborne Emissions   | Programs for managing airborne emissions and reducing greenhouse gases                                       | 49, 50, 51, 51, 52, 53 |                    |
|   | FH14-Product Content  | Effort for improving environmental performance of products and eliminating hazardous materials from products | 37, 38, 39, 40         |                    |
|   | FH15-Facility HS&E Management System Status                     | Equivalent to CH2  | 44, 67, 71             |                    |
|   | FH16- HS&E Management System Elements                           | Equivalent to CH4  | 46                     |                    |

\*Electronic Industry Code of Conduct (EICC): A code of conduct applied to the electronics industry, with an aim to build a safer workplace, promote dignity of the workers and induce environmentally sustainable business practices across the supply chain. An identical set of checklists are applied to not only the electronics industry, but also upstream chemical and materials companies to demand soundness in labor, ethics and environmental practices of the businesses.

\*C: Company level, F: Facility level

## GLOSSARY

| Glossary  | Page | Description   |
|---|------|---|
| 1) Cartel   | 19   | An agreement amongst competing firms where a business operator, resorting to contract, agreement, resolution or any other methods, consents with other operators to conduct an unfair act that limits competition, or referring to an act of forcing other business operators to engage in unfair practices to limit competition.   |
| 2) Global Market Intelligence (GMI)               | 22   | An in-house system that displays information and relevant reports regarding overseas markets, with an aim to support decision making of the management through delivering market/customer information in a timely manner.   |
| 3) Key Risk Indicator (KRI)                       | 23   | An indicator showing a probability and an exposure level of a risk.   |
| 4) ABS  | 29   | Thermoplastic resins formed from three types of monomers-Acrylonitrile, Butadiene, and Styrene, with wide application in electrical/battery parts, automotive parts, industrial materials and basic commodities.  |
| 5) PE   | 32   | A translucent resin or a milky-colored opaque resin gained from ethylene polymerization. Depending on the density, the resin is separated into high-density/low-density/linear low-density polyethylene. As it causes no harm to a human body and can be easily formed and processed, PE is widely used in various products from commodities to insulated electrical wires.                   |
| 6) Quality Control (QE)                           | 33   | A control to ensure the quality of a product be maintained and enhanced through applying scientific principles.   |
| 7) Total Productive Maintenance (TPM)             | 33   | Management innovation activities for enhancing productivity.  |
| 8) Six Sigma                                      | 33   | A management strategy implemented companywide in order to achieve quality innovation and customer satisfaction. It evaluates all quality levels quantitatively using sigma statistical measures, promotes an efficient culture of quality through emphasizing problem solving skills and professional development.  |
| 9) Product Liability Prevention (PLP)             | 37   | A countermeasure to prevent product liability, designed to ensure quality enhancement and safety of products in all stages of development, production and control.  |
| 10) Product Liability Defense (PLD)               | 37   | A countermeasure to defend product liability, covering root cause analysis of a claim, implementation of a preventive action, and responding to recalls and litigations.  |
| 11) Product Safety Management System (PSMS)       | 37   | A total management control policy, designed to improve product safety during the lifecycle of a product, from concept development all the way through design, manufacturing, shipping and disposal.   |
| 12) Hazardous Substance Process Management (HSPM) | 38   | A management system to control hazardous substance processes.   |
| 13) Life Cycle Assessment (LCA)                   | 39   | A technique for assessing environmental performance of a product-by quantifying the amount of energy and materials consumed and emitted from the lifecycle of a product-from raw material, manufacture, use to disposal- to evaluate their impact on the environment and seek ways to improve the environment.  |
| 14) Management By Objectives (MBO)                | 45   | A term referring to objective-centric or objective – driven management, the essence of MBO is participative goal setting, and performance evaluation using the objectives.<br>At LG Chem, objectives are cascaded down from and aligned between the Company, Business Company, teams and individuals, and evaluations results are linked to compensation, career advancement and development. |
| 15) Responsible Care (RC)                         | 46   | A voluntary initiative under which companies and the government work together to continuously improve their health, safety and environmental performance, with a sense of responsibility to address concerns from local communities, based on a belief that all companies can continue to exist only when there is an endorsement from the public.  |
| 16) Implementing Action plan (IA)                 | 46   | A unit of measure from RC self-assessments, used to indicate that an action plan is in implementation.  |
| 17) Practice-in-Place (PP)                        | 46   | A unit of measure from RC self-assessments, used to show that implementation guidelines have been established as part of the daily activities of the business.  |
| 18) ISO 14001                                     | 47   | International standards for environmental management system, developed by International Organization for Standardization (ISO).   |
| 19) OHSAS 18001                                   | 47   | A set of standards established to systematically introduce workplace safety and health management system, comprising relevant audit standards and guidelines.   |
| 20) KOSHA 18001                                   | 47   | As the rules for certification for safety and health management system, KOSHA 18001 was developed by Korea Occupational Safety and Health Agency (KOSHA), building on UK's BS8800 for safety and health management system and Europe's OHSAS 18001 for occupational safety and health management certification as a foundation.   |

| Glossary   | Page | Description  |
|--|------|--|
| 21) Waste Manifest System (Allbaro)                  | 48   | IT-based information management system with improved efficiency and reliability in administrative process, ensuring enhanced transparency in waste reduction and treatment, as the whole process from discharge of industrial wastes to their final treatment is managed on a real-time basis.   |
| 22) Material Safety Data Sheet (MSDS)                | 49   | 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.  |
| 23) Intergovernmental Panel on Climate Change (IPCC) | 52   | An intergovernmental panel on climate change. The IPCC is co-hosted by the UN Environmental Program (UNEP) and World Meteorological Organization (WMO), involving governments of countries around the world.   |
| 24) Greenhouse Gas (GHG)                             | 52   | Natural or artificial gases in the atmosphere that absorb and emit radiation to specific wavelengths within the thermal infrared range, emitted from earth surface, air and clouds. Under the Kyoto Protocol, carbon dioxide, nitrous oxide, methane and SF <sub>6</sub> , HFCS and PFCS are classified as greenhouse gases.   |
| 25) Det Norske Veritas (DNV)                         | 52   | A third-party verification and certification body for greenhouse gas inventory.  |
| 26) Enterprise Resource Planning (ERP)               | 52   | A total information system, designed to ensure efficient management of all human and physical resources in the enterprise used for business activities, with an aim to reinforce business competitiveness.   |
| 27) Project Design Document (PDD)                    | 53   | A plan for abating greenhouse gas emission.  |
| 28) Memorandum of Understanding (MOU)                | 53   | A written document of an agreement before a formal contract is signed between organizations.   |
| 29) Toxics Release Inventory (TRI)                   | 55   | An inventory that the government publishes to inform the public on toxic chemicals in terms of their release and reduction measures. Since 1999, companies have been mandated to calculate the total level of toxic chemical materials by each material type as they are released into air, water and soil in all of the manufacturing processes of a site and which are transported to wastewater/waste treatment companies. The companies have to report to the Ministry of Environment every year and have to take actions to reduce their release levels in phase. |
| 30) Substance Information Exchange Forum (SIEF)      | 56   | A forum of companies that have pre-registered identical substances, intended to assist the sharing of data and cost associated with REACH registration.  |
| 31) High Potential Individual (HPI)                  | 61   | HPI refers to a system for identifying and nurturing individuals with potential to grow as next-generation business leaders. The top 5% of desk job workers are selected, trained, and given stretched goal as well as managed for their career growth. As a key talent development system, HPI is linked to succession plans and utilized as a pool for key successor candidates.   |
| 32) Career Development Program (CDP)                 | 61   | A program which allows individuals and organization to design career paths of the individuals together, from the point they were hired all the way to their retirement and manage from a mid-to long-term perspective. At LG Chem, there is an interview-driven career development program targeting all employees as well as CDP specifically targeting key individuals.  |
| 33) HR Index   | 62   | A system for strengthening execution-ability in talent management by managing key HR matrixes, e.g., talent development activities and field-driven leadership as indexes and linking them to evaluation and compensation for executive managers and team leaders.   |
| 34) Process Safety Management (PSM)                  | 67   | Managing for ensuring safety in the process.   |
| 35) Maximum Foreseeable Loss (MFL)                   | 67   | A maximum level of losses estimated.   |
| 36) Automated External Defibrillator (AED)           | 69   | A medical device designed to automatically analyze heart rhythms and induce defibrillation if necessary.   |
| 37) Open Purchasing Electronic Network (OPEN)        | 70   | A consolidated purchasing IT system of LG Chem.  |
| 38) Matching Grant                                   | 73   | A scheme where the company matches the fund raised by their employees for helping the needy neighbors.   |
| 39) Outreach Program                                 | 73   | An outreach program of a chemical industry refers to a diverse set of social contribution activities and chemistry-related events to reach out to the general public such as local residents, as well as children and the youth, who will be our customers in the future. They are designed to increase the public understanding and familiarity of chemistry and highlight the importance of the chemical industry, with an ultimate aim to build a better image and a deeper trust for the chemistry industry.   |

# READER FEEDBACK QUESTIONNAIRE

**To:**

Environment & Safety Team, LG Chem, Ltd.  
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Your valuable feedback on our 2009 Sustainability Report will be an important source of information to improve the quality of our future sustainability reports. Please fill out this feedback questionnaire after reading the report and send it to us by mail or fax.

**From:**

• Name: \_\_\_\_\_ • Occupation: \_\_\_\_\_

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

- LG Chem employee       Shareholder/financial institution
- Customer                       Supplier                       Citizens' group
- Local resident                 Academia                       Government
- Media                               Other:

**2. For what purpose do you use this report? (Mark one or more)**

- To gain general information about the company
- To evaluate sustainability management performance of the company
- To do a comparative analysis on the attributes of the pertaining industry
- To use as a tool for education (case study)

**3. In which area(s) are you mostly interested? (Mark one or more)**

- Materiality test and stakeholder communication
- 2009 highlights                       Sustainability management vision
- Corporate governance                 "Jeong-Do" Management
- Corporate culture                       Risk management
- Business strategy and performance
- Innovation activities                       Product liability
- Environmental management
- Responding to energy and climate change
- Chemicals management and responding to REACH
- Talent management and labor-management collaboration
- Safety and health                       Partnership with suppliers
- Social contribution

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

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

**5. How useful was the report's information in the following areas?**

- Materiality test and stakeholder communication  
(Very poor) 1 2 3 4 5 (Very good)
- Sustainability 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. How would you rate our activities in the following areas?**

- Materiality test and stakeholder communication  
(Very poor) 1 2 3 4 5 (Very good)
- Sustainability 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)

**7. Do you have any additional opinions on LG Chem's sustainability management activities or sustainability report?**

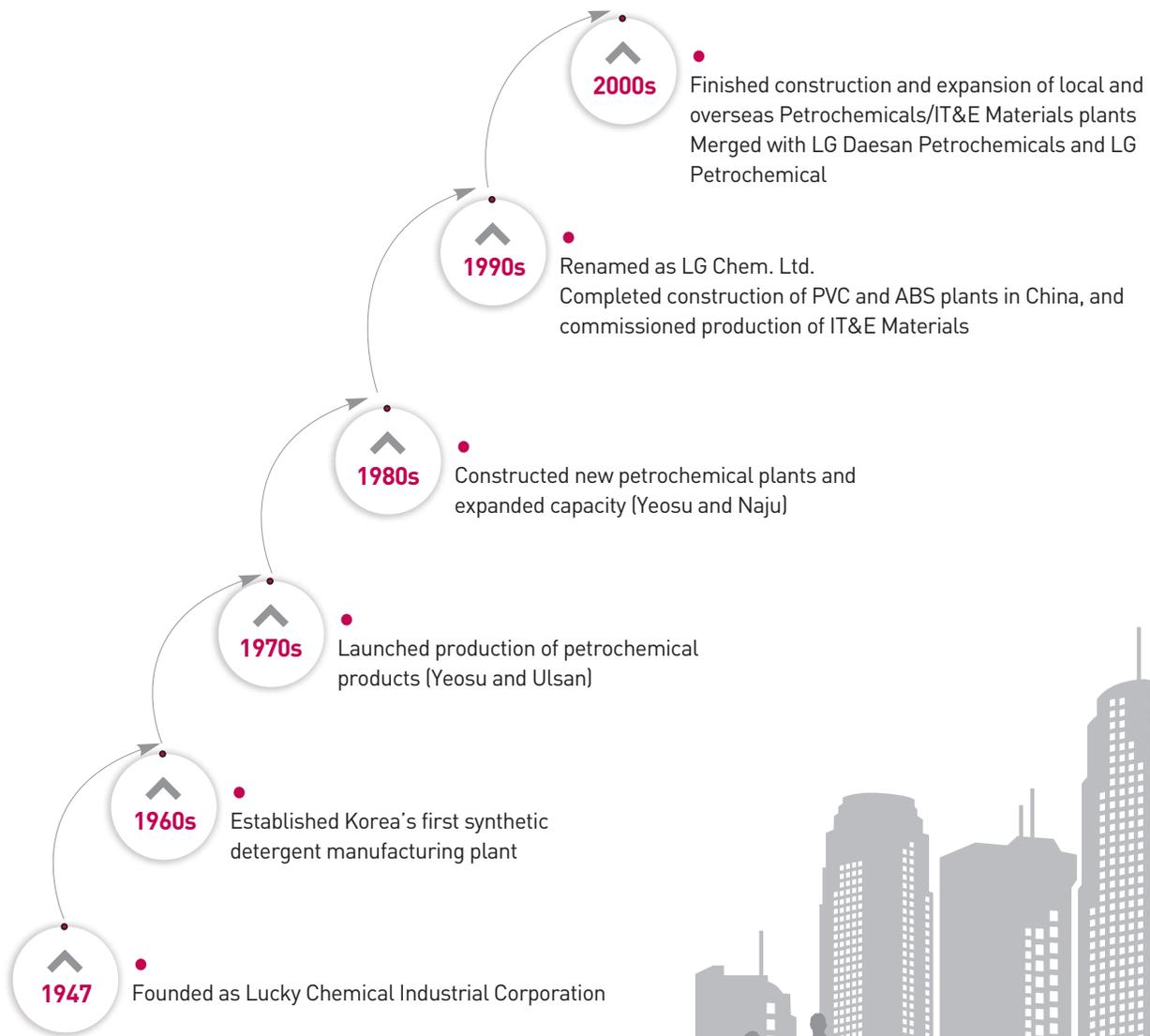
If so, please specify.



## COMPANY MILESTONES

It took years of hard work and dedication to build the unique technological expertise, experience and know-how that we have at LG Chem today. Capitalizing on our innovation we have achieved in petrochemical and IT&E Materials business since 1970s and 80s, we are now producing and providing for the world materials and solutions that are essential to industrial growth and life convenience.

In the road ahead, we will stay firmly committed to delivering enhanced environmental and social performance to take LG Chem to the next level of growth towards sustainability.



\*Please visit our website at [www.lgchem.com](http://www.lgchem.com) for more detailed information on our history



## Renewing our Commitment for Sustainability through 2009 Sustainability Report



Dear readers,

LG Chem delivered extraordinary performance last year, reaching a new high in our business results, even as we faced intensifying competition in the global landscape. We set a new milestone in our history because we had your unsparing interest and support for LG Chem. We firmly believe that continued endeavors to enhance value for the stakeholders are the only way for us to return our deepest appreciation to you.

Every year, LG Chem publishes a sustainability report to share with the stakeholders what we are doing and how well we are performing in sustainability management. Through this fourth sustainability report, we focused on ensuring the substantiality of the contents that many stakeholders including global institutions and organizations wanted us to disclose.

Moreover, through analyzing the significance of our stakeholder needs regarding economic, environmental and social performance and incorporating the results in the report, we were able to reaffirm exactly what it is that we need to have to truly position ourselves as a Global Leading Company. Furthermore, we have included an assurance statement from a third-party assurance provider as well as opinions from sustainability experts to ensure increased credibility of the report. Such process will certainly go a long way towards bringing a transparent and sustainable growth at LG Chem down the road.

We hope that this report will be a valuable tool for you to gain a better understanding of LG Chem. In the journeys ahead, we will continuously engage in active communication with all the stakeholders to promote shared growth. We promise you that we will stay committed to building a sustainable future for all.

Thank you.  
April 2010



Cho, Kap Ho  
Vice-President  
PR & Public Affairs Department





Recycled papers and soy ink, certified by Forest Stewardship Council (FSC), were used to print this report.



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