Solution**Partner**

2015 LG CHEM SUSTAINABILITY REPORT



LG CHEM

SUSTAINABILITY REPORT 2015



LG Chem in 2015



LG CHEM 2015

SUSTAINABILITY REPOR

LG Chem in 2015 CEO Message

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CEO Message



LG Chem will continue overcoming obstacles and strengthening our sustainable growth foundation through continuous change and innovation.

Dear Stakeholders,

I would like to express my deep appreciation for your constant care and support for LG Chem.

Last year, LG Chem increased operation profits successfully and drastically, improving the product spread, saving prime costs company-wide, and establishing differentiated product portfolios despite challenging situations such as global economic recession and low oil prices. In the area of basic materials, LG Chem has secured the world highest energy efficiency in NCC and maintained high profitability by strengthening the cost-competitive capacity in basic petrochemical. In the area of IT and electronics materials as well, LG Chem has developed the local production system in China further, maximizing the profitability of polarizing plate products. Based on its superior technical power and stable supply capacity, LG Chem has established the foundation for RO membrane business. In the area of energy solutions, we have secured major customers in the global market by developing the market-leading automotive/ESS battery products. The business of mobile batteries is expanding for emerging markets such as the rapidly growing small EV market.

This year, the business management environment is more uncertain than previous years due to various risks such as prolonged periods of low growth and low oil prices, unstable conditions of global financial markets, and so forth. As the rate of self-sufficiency of petrochemical products in China increases, emerging companies equipped with innovative technologies are ever more threatening. Competitors are strengthening their competitiveness by seeking consistent changes such as restructuring and new business promotion.

Despite such challenging circumstances, LG Chem will continue overcoming threats and strengthening the foundation for sustainable growth through the future-oriented, proactive changes and organizational culture that sticks to the basics.

"We will continue establishing future-oriented business portfolios."

There is an old saying, "Cho-mok-ji-si (草木知時)," which means to look ahead into the future and prepare yourself thoroughly. We will take the lead of markets by making changes proactively. We will grasp the flow of social environmental mega trends and actively establish future-oriented business portfolios. Particularly, LG Chem will focus on energy, water, and bio areas with great potentials for growth specifically in such businesses as electric vehicle batteries, water treatment RO membranes, green bio business, etc.

"We will continue developing products that create new values essential for mankind."

LG Chem will grasp changes in the world and among customers, focusing on providing values that customers desire to have. By securing differentiated competitive edges in terms of technologies, commodities, and prices, we will create customer values and develop products necessary for the life of mankind based on differentiated technologies. In addition, LG Chem also will take the lead of the eco-friendly energy solution market with its high energy efficiency materials and products especially in the automotive/ESS battery business.

"We will secure sustainable competitiveness based on the organizational culture that sticks to the basics."

In this time of high uncertainty, it is essential to be ever more faithful to the basics than before in order to overcome the challenging business management environment and continue developing corporate competitiveness. LG Chem will fulfill its social responsibilities as a global enterprise by complying with principles and regulations throughout the business operation process from raw material purchase to product development, manufacturing, and sales. With safety and environment as the top priority in every business activity, we will achieve the 'Zero Accident' goal. For fair transactions with suppliers and customers, we will continue practicing Jeong-Do Management and strengthening partnerships to share social responsibilities with them, strengthening sustainable competitiveness over the entire value chain.

LG Chem has put forth efforts into mutual growth with the society based on its sustainable competitiveness. In reflection of such efforts, LG Chem issued '2015 Sustainability Report.' Especially this year, LG Chem released the 10th Sustainability Report. For the last decade, LG Chem has established the dedicated department for CSR in addition to publishing reports in order to practice sustainable management systematically. It also has conducted various activities to promote its economic growth and fulfill social and environmental responsibilities such as establishment of the chemical management system and greenhouse gas inventory, introduction of the company-wide energy performance evaluation system, entry into UNGC, and so forth. As a result, LG Chem has obtained good results in various evaluations and awards such as winning the prize for outstanding response to CDP climate changes for 3 consecutive years, winning the Presidential Award for national green technology, and winning the best prize for sustainable management businesses.

Looking back the efforts for the last 10 years, LG Chem will continue putting forth efforts to grow as a global chemical company that creates sustainable future values in every business activity. LG Chem promises to do its utmost to practice sustainable business management proactively with a strong sense of responsibility towards its customers. We really appreciate your continued support and encouragement.

Thank you very much.

June 2016 CEO and Vice-Chairman of LG Chem Jin-Soo, Park

Company Overview

Since its founding in 1947, LG Chem has steadily grown to become South Korea's leading chemical company that has contributed to the enhancement of mankind's quality of life through continuous new products and businesses and technological development. LG Chem has operated various sectors such as basic materials, IT and electronic materials, and energy solutions. In addition, it has established a global network of production, sales, and R&D over major regions such as Asia, Europe and America to become a global chemical company.

Moving forward with a vision "To be a global leader, Growing with customers by providing innovative materials and solutions", LG Chem plans to keep growing as a responsible and sustainable company.



Overview (As of late December 2015)

Name	LG Chem, Ltd
Headquarters	LG Twin Towers, 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, South Korea
Foundation	January 1947
Employees	26,195(14,280 in Korea, 11,915 Over- seas)

2015 Financial Snapshot (Unit:100 million KRW)

Total Assets	185,787
Total Liabilities	54,752
Total Equity	131,035
Sales	202,066
Operating Income	18,236
Net Income	11,485

Office

Operations	5	Location		
Headquarter	s ❶ LG Chem, Ltd.	Korea		
	2 LG Chem(China) Investment Co., Ltd.	– China		
	8 Ningbo Zhenhai LG Yongxing Trade Co., Ltd.			
	4 LG Chem Hong Kong Ltd	Hong Kong		
	😉 LG Chem America, Inc	– USA		
	6 LG NanoH2O, Inc.	- 03A		
Marketing Subsidiary				
	8 LG Chem Europe GmbH	Germany		
	IG Chemical India Pvt. Ltd.	– India		
	🐠 LGC Petrochemical India Private Ltd.	— muia		
	❶ LG Chem Japan Co., Ltd	Japan		
	🕼 LG Chem TK Kimya Sanayi Ve Ticaret Limited Sirketi	Turkey		
	🚯 LG Chem Malaysia SND.BHD	Malaysia		
Represen-	🕼 LG Chem, Ltd. Moscow Office	Russia		
tative	🚯 LG Chem, Ltd. Bangkok Representative Office	Thailand		
Office	Itochiminh Office	Vietnam		
	🕼 Jakarta Office	Indonesia		

R&D

Operations	Location
Research Park	Korea
2 LG Chem Power Inc.	USA
3 LG Chem, Ltd. Japan R&D Center	Japan

Manufacturing Facilities

Operations	Location	Major Products
1 Yeosu Complex		NCC, SM, LDPE, HDPE, F SAN, PS, EPS, Acrylate, (NPG, SBS, MBS, SB Late
2 Cheongju Complex		Electrolytes, anode m sensitizer, rechargeab
3 Ochang 1 Plant		Rechargeable batterie materials, Optical mat
4 Ulsan Plant	Korea	Plasticizers
5 Daesan Complex		NCC, EO/ EG, SM, BD, I PP, Synthetic rubber, F
6 Iksan Plant		ABS compounds, EP
7 Naju Plant		Octanol, Butanol, Plas Acrylic acid
8 Gimcheon Plant		SAP
🥑 Paju Plant		LCD glass substrates

PVC, VCM, ABS, Oxo-alcohol, ex, BPA
naterials, PCM, ble batteries
es, Display aterials

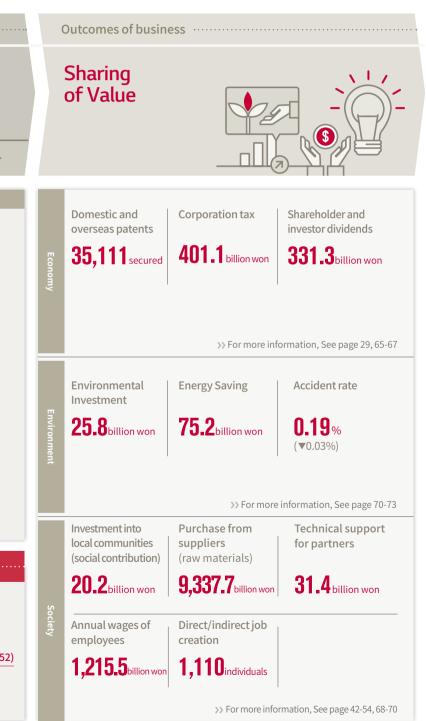
, MTBE, B-1, PE, , PVC, VCM

asticizers,

Operations	Location	Major Products
🕦 Tianjin LG BOHAI Chemical Co., Ltd.		VCM, EDC
Tianjin LG BOTIAN Chemical Co., Ltd.		SBS
😰 Ningbo LG YONGXING Chemical Co., Ltd.		ABS, SAN, SBL, E
LG Chemical(Guangzhou) Engineering Plastics Co., Ltd		EP
🚯 LG Chem(Tianjin) Engineering Plastics Co., Ltd		EP
LG Chem(Nanjing) Information & Electronic Materials Co., Ltd.	China	Rechargeable batteries, polarizing plates
🚯 LG Chem Display Materials(Beijing) Co., Ltd.		Polarizers for TFT-LCD
🗊 CNOOC & LG Petrochemicals Co., Ltd.		ABS, SAN
LG Chem (Chongqing) Engineering Plastics Co.,Ltd.		EPC
Nanjing LG Chem New Energy Battery Co.,Ltd.		Automotive batteries
ข LG Chem(Taiwan), Ltd.	Taiwan	Polarizers
 LG Chem Michigan Inc. 	USA	Lithium-ion batteries, Batter packs
🙋 LG Chem, Poland Sp. z o.o.	Poland	Polarizers, EP
😢 LG Polymers India Pvt. Ltd.	India	PS, EPS
2 LG Vina Chemical Company Ltd.	Vietnam	DOP

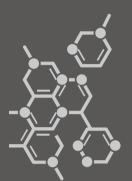
LG Chem's Business Model for Sustainability

	Input		Value Chain			
	Input of Capital		Value added by LG Chem		+	
		· Domestic and overseas	Raw Material	Our Businesses	Customer	End-user / Public
	Financial Capital	economic condition · Response to govern- mental regulations · Assets (capital) · M&A	EDC, Naptha, etc.	Basic Materials Production of basic materials such as ethylene, propylene and etc. Developing fuctional polymers and eco-friendly / high-functional materials		
Economy	Manufactured Capital	 Domestic and overseas operations Manufacturing facilities 	Millbase, Lithium etc.	Advanced Materials Production and sales of display / battery materials such as photoresist, OLED materials and etc.	• Synthetic resins/plastic processing company	· Residence construction &
	Intellectual Capital	 Core technologies Intellectual property rights, patents 	TAC film, etc.	IT & Electronic Materials Production and sales of polarizer, LCD glass substrates and etc. Developing materials in the display, circuit and semiconductor areas	 Information & communication company Home appliance manufacturer Automotive (finished 	infrastructure • IT & electronic devices • Automobiles
			Anode and cathode materials, Separators, etc.	Energy Solutions Production and sales of lithium-ion batteries Developing battery materials and small-/medium and large-sized batteries	vehicles)manufacturer	· Household goods
nvironment	Environmental Capital	• Natural environment • Energy/water/electric power, etc.		New Businesses and Platform Technologies Developing new businesses and platform technologies including water treatment, bioindustry, new elements, etc.		
Soc	Human Capital	 Professionalism of employees Vocational experience and capabilities Ethical awareness 	Value Adding Activities	• R&D and Technoloy • Creating a Culture of Occupational		
iety	Social Capital	 Local community Government Customers Suppliers 	• Strengthening Relationship with Suppliers(p.42)	Innovation(p.26)Safety, Health, and Environment(p.38)• Greenhouse Gas Reduction and Response to Climate Change(p.34)• Human Resources Development(p.46)	• Reinforcing Product Responsibility(p.30)	• Promoting Strategic Social Contribution(p.52



* Based on domestic operations

Basic Materials & Chemicals



Market Prospect & Business Strategy

Market Prospect

As oil prices remain at low levels, the gap is decreasing between the low-cost produced ethane cracker and the existing naphtha cracker in terms of competitiveness. It is expected that the economic growth of major countries will slow down due to the sluggish global demand while the growth over the emerging Asian regions will continue. Likewise, demands in the highly functional material division are expected to continue growing.

Business Strategy

LG Chem plans to form a stable, profit-making structure through its superior business model, expand its corporate reach on a global scale, especially within the high added-value division, and develop new, promising mate-rials in order to remain one step ahead of market growth. To this end, LG Chem is seeking to boost sales of high added-value products while reinforcing the profitability of existing business areas. LG Chem is also seeking to establish groundwork for advancement into emerging markets, and expanding production bases overseas. Furthermore, LG Chem has taken part in nurturing similar businesses and putting forth constant effort into introducing external capacities for new material development.

Generating Stable Profit Via Superior Business Model

• Assuring high quality in all products as a top-tier company • Expanding the magnitude of high added-value product sales · Improving prime cost competitiveness of existing business divisions

• Strengthening profitability by focusing on high yield products

Securing Growth through Global High-Added Value **Business Expansion**

• Expanding overseas production bases of high added-value products to China, Southeast Asia, America, India, etc. • Seeking ways to procure raw materials in order to advancement into emerging markets

Planning for Future Growth by Seeking New, **Promising Materials**

· Fostering similar business areas through our unique capabilities · Introducing external capacities for the development of future-oriented new materials for next-generation business sectors such as electric vehicles, 3D printers, etc.



HIGHLIGHTS in the Year of 2015

EPC(Engineering Plastic Compound)

79 ▶ 93

1 NCC(Naphtha Cracking Center)

NCC is a facility that pyrolyzes naphtha by refining crude oil for the production as ethylene and propylene. LG Chem ensures superior cost competitiveness through high energy efficiency.

2 PO(Polyolefine)

We produce and supply polyolefin products, such as films, pipes, and wires, for various uses that feature outstanding workability and quality. With excellent chemical resistance, electric isolation, and mechanical/optical characteristics, these products allow for increased global market shares.

3ABS(Acrylonitrile-Butadiene-Styrene)

Thermoplastic resin products made mainly of SM(Styrene Monomer), AN(Acryloni-trile), and BD(Butadiene) and are widely used for automotive parts, electric/electronic items, industrial materials, and household items. The production capacity amounts to 1.5 million tons, in Korea & abroad, as we lead domestic and global markets, maintaining the No. 1 global market share.

4 PVC(Polyvinyl Chloride) / Plasticizers Universal thermoplastic products, available in various forms, are utilized in multiple areas, such as construction materials and household items, to serve diverse purposes and are supplied with durability

280 > 346

New Materials

39 ▶ 51

5 EP(Engineering Plastic Compound)

These are highly-functional engineering plastic elements that can be utilized in electric/electronic products, automotive parts, and information/electronic parts. Produced by LG Chem, they lead the market as differentiated, high value-added products.

6 Acrylates / SAP(Super-Absorbent Polymer) By securing superior position within the SAP market, LG Chem is seeking to spur continued growth in the prophlene derivatives sector.

Rubber / Special Resin

We create products of various applications including tires and packing material such as synthetic rubber made mainly of butadiene, shock-absorbing MBS(Methacrylate Butadiene Styrene), glove and paper coating latex, asphalt and plastic modifiers, SBS(Styrene Butadiene Styrene), etc.

Value Creation with Products

and sound quality assured.

Products Made of PCR Raw Materials | PCR(Post Consumer Recycled) is an eco-friendly raw material that replaces existing raw materials by collecting, separating, and recycling used plastic items, aiding to the reduction of CO₂ emissions. When a ton of 25% PCR of PCR application will continue to see growth through sustained R&D.

IT&E Materials





Market Prospect & Business Strategy

Market Prospect

Growth rates of 5% in the LCD market are expected within the Chinese market. Leading Company's efforts are continuously being put forth into OLED market expansion. In the field of RO membranes, a new area of business, a growth rate of 10% is expected as interest in eco-friendliness and well-being increases around the world.

Business Strategy

LG Chem will strengthen its growth potential and profitability by centering our capacity into the development of differentiated technology. By maintaining a superior position in the TV market and increasing sales of small and medium sized products, LG Chem aims to secure profitability of polarizing plates and seek sustainable growth by expanding highly functional small scale technology industries. In addition, effort will be made to achieve market leader status by maximizing the productivity of glass small scale and RO membranes.

• Optical Materials

LG Chem is leading the market of polarizer which is a key component of TFT-LCD display panel.

2 High Functional Materials

LG Chem produces protective film for polarizer, and materials for OLED and semiconductor. In particular, LG Chem consistently has been focusing its ability on the area of high-functional materials.

Glass Substrates

Since LG Chem started its business in 2012, it produces high-quality glass sub-strates with constant R&D investment.

O Membranes

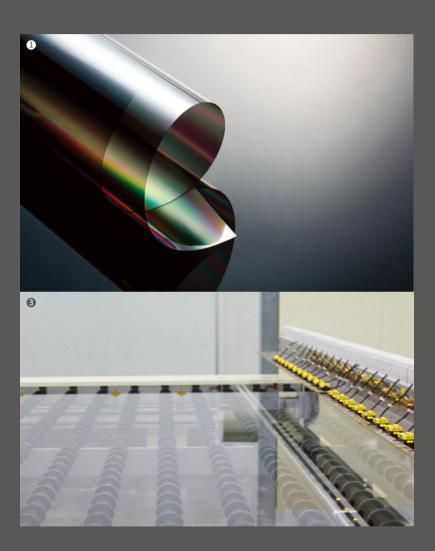
By acquiring NanoH2O, a U.S.-based company specialized in RO membrane, LG Chem obtained a high technical competence in the field. Thereby, LG Chem best salt rejection rates.

Value Creation with Products

Leading a clean energy future with next-generation technological development | Recently, climate changes and environmental pollution have caused water shortages, and water quality instability around the world, endangering the livelihood of all mankind. In response, various activities such as sea water desalination and water resource recycling are conducted actively, while the household water purifying market for the stability of drinking water continues to grow. Accordingly, LG Chem aims to enhance quality of life for all mankind and contribute to solutions of global problems like water shortages and worsening water quality by developing top-tier





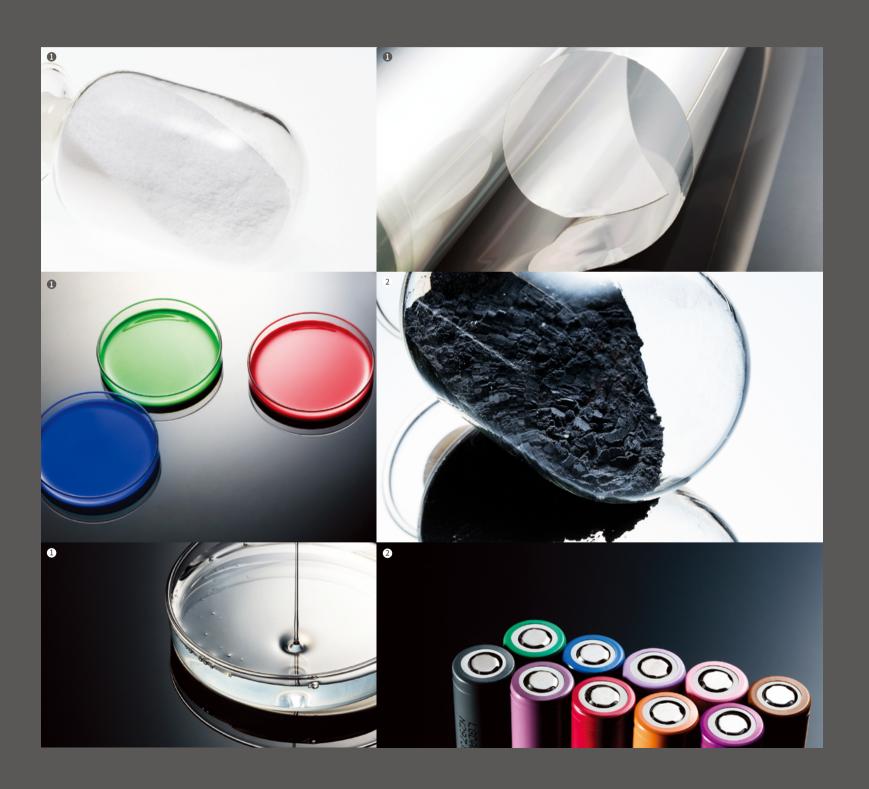


Advanced Materials









Market Prospect & Business Strategy

Market Prospect

electric vehicles continues expanding.

Business Strategy

Value Creation with Products

HIGHLIGHTS in the Year of 2015

Display Materials



Following the expectation that the LCD market will continue to experience low growth rates, competition between material businesses will become more fierce. Accordingly, many companies are expanding the market by developing highly functional materials and strengthening their partnership with the Chinese market. In the case of the OLED market, the number of global companies actively establishing patent barriers in effort to con-tinue leading the competition is increasing in response to the growth of OLED TVs. It is expected that rechargeable batteries will have a chance at growth in the area of high capacity/high voltage anode materials as the market for

LG Chem plans to timely develop high resolution TV sensitizers and strengthen its favorability among major customers. In addition, efforts will be put forth into expanding large panel companies in China to take preemptive measures in response to the growth of the Chinese market. OLED TV materials will also be developed actively to secure a high position within the Global Top Tier by 2018, while substrate materials, which are essential for flexible display development, will be cultivated with the goal of providing differentiated values. Concerning battery elements, the line-up of anode materials, which are essential for rechargeable batteries, will be expanded, and anode materials for next generation electric vehicle batteries will be developed and supplied in effort to lead of the market.

1 Display Materials

LG Chem produces photoresists and process materials which are key materials for LCD color filters, as well as transporting and light-emitting layer materials for next generation displays, OLEDs, and encapsulants for LED devices.

2 Rechargeable Battery Materials

We produce anode materials, a core component of rechargeable batteries and meet the demand of ecofriendly large-size batteries for future industry sectors, such as electric vehicles and power storage devices as well as small batteries that are used for various IT devices.

Core Materials for Electric Vehicle Batteries | LG Chem works diligently to distribute eco-friendly electric vehicles and simultaneously produce electric vehicle batteries and anode materials, which are essential components of batteries. In 2015, we contributed to a wide-scale distribution of eco-friendly vehicles by supplying Global Top Tier finished vehicle manufacturers with anode materials for electronic cars. In addition, we will continue our contribution to eco-friendly growth by developing high capacity, long-life products for 2nd generation and 3rd

Energy Solutions



Automotive Battery

Electric vehicles batteries discharge no air pollutants and can be utilized to supply energy to electric cars, which are an efficient and green mode of transportation. LG Chem is staying ahead of the competition by supplying top global automotive manufacturers with electric vehicle batteries that feature high energy density, durability, and safety.

2 IT & New Application Battery LG Chem has supplied various types of batteries that meet customer needs based on their differentiated technical abilities such as ultra-small batteries, free-form batteries, and more, effectively strengthening our position in the market. In addition, we contribute

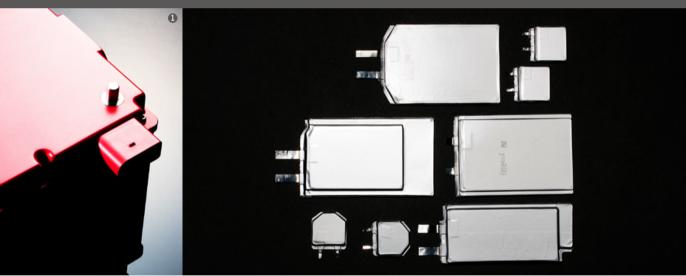
to environmental protection by mov-

ing to replace existing lead storage

batteries with lithium batteries.

3 ESS Battery

Based on our specialized new production line and product competitiveness, LG Chem is supplying ESS batteries that are optimized for new and renewable energy generation and power supply stabilization.



6





Market Prospect & Business Strategy

Market Prospect

Following electric vehicle propagation and increase in ESS sales, the market for lithium batteries has shifted from current mobile device utilization to electric vehicles and ESS application. Particularly in the automotive battery market, high growth rates are expected as government support for global environmental regulations has been strengthened, and new electric vehicle models have been consequently introduced. ESS batteries, as a result, have seen kindled expectation of significant market expansion based on competitive new and renewable energy unit prices. In the IT & New Application battery market, new markets such as small EV (Electronic Vehicle), wireless vacuum cleaners, and the drone market are growing.

Business Strategy

Value Creation with Products

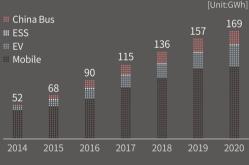
HIGHLIGHTS in the Year of 2015

Small-sized batteries | ESS Batteries

LG Chem has secured world-class product competiveness by focusing on the development of electric vehicles and ESS batteries. Through cost innovation strategy, we are working to lead the popularization of electric vehicles.

Moreover, we aim to accelerate entrance into the smallsized battery market, which has displayed potential for significant growth. As the energy solution industry in China grows, the number of global companies entering the Chinese market is increasing, and the positionality of Chinese energy solution companies in the market is strengthening. Therefore, LG Chem seeks to capitalize on this opportunity and enter the ESS market in China accordingly.

Prospect of Global Demands for Lithium Batteries



Supply of electric vehicle batteries to China | As environmental conditions in China deteriorate, the Chinese government is working to strengthen its environmental regulations and eco-friendly support measures. Accordingly, reducing costs, attracting major automotive manufacturers in China, to whom LG Chem supplied with transportation trucks and cleaning vehicles for public agencies, allowing us to play a role of major supplier of electric vehicle

Increasing orders of power grid ESS | As fuel costs increase and global environmental regulations get stricter, the development of new and renewable energy and efficient utilization of electric power has become a major issue. Therefore, LG Chem has come to develop high output/high energy ESS batteries for power grids, subsequently establishing partnerships with major electric power companies, and sought to maximize the power efficiency of new and renewable energy generation. In this way, LG Chem plays a central role in controlling coal-fired electric power generation and while simultaneously expanding the eco-friendly power generation market.

LG WAY

The LG Way is the foundation of LG employees' way of thinking and conduct, aimed at achieving our goal of 'No. 1 LG.' LG's vision is composed of 'Customer Value Creation' and 'People-Oriented Management' on the basis of 'Jeong-Do Management,' LG's unique code of conduct. LG Chem is actively pursuing the title of 'No. 1 LG' through daily practice of the LG Way.

LG Chem's Vision and Core Values

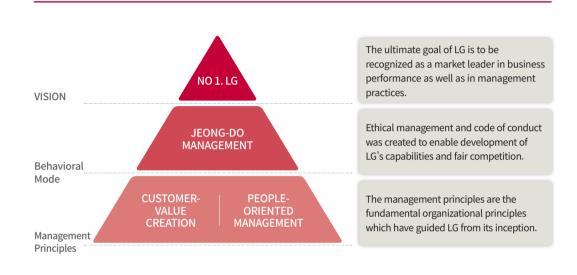
LG Chem realizes the vision of 'Growing with customers by providing innovative materials and solutions' in pursuit of the 3 Shared Values - customer-centered 'Customer Value Creation', 'Strong Implementation' for corporate goal achievement and 'Mutual Respect' for teamwork and capability development. As it continues growing, LG Chem will become a sustainable global leading company that gains trust of customers, the communities, and the world.



Core Values



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



ACHIEVING 'NO.1 LG'

Vision : No.1 LG	Code of Conduct : Joeng-Do Management	Management Principles
To Customers A trustworthy brand that provides the best products and services.	Integrity Work done with utmost transparency according to principles and standards.	Customer-Value Creation Customer-First / Substantive value delivery / Innovation-driven creation.
To Investors A secure investment that yields sustainably high returns.	Fair transaction Provide equal opportunities and fair treatment in every transaction.	People-Oriented Management Self-Management and creativity / Respect for human dignity / Capability development and actualization / Performance-based
To Employees A exceptional workplace that attracts talented individuals.	Fair-competition Improve capabilities through with which one can beat rivals in fair competition.	rewards.
To Competitors		

Growing with customers by providing innovative materials and solutions

Innovative Materials

We deliver the best materials with unrivaled prices and performance, designed to improve the performance of customers' products and lead customer businesses to success.

Innovative Solution

We identify problems in customers' businesses, solve them, and improve performance by incorporating our services and knowledge into products and offering value aligned with customers' individual needs.

Growing with Customers

We grow with our valuable customers by delivering innovative values that help them thrive and prosper.

Global Leader

We strive to be a company that is trusted and admired by our customers, the most attractive choice to our investors, the workplace of choice for the best and the brightest, and feared and emulated by our competitors.

Æ Strong Implementation



Strong implementation 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.

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

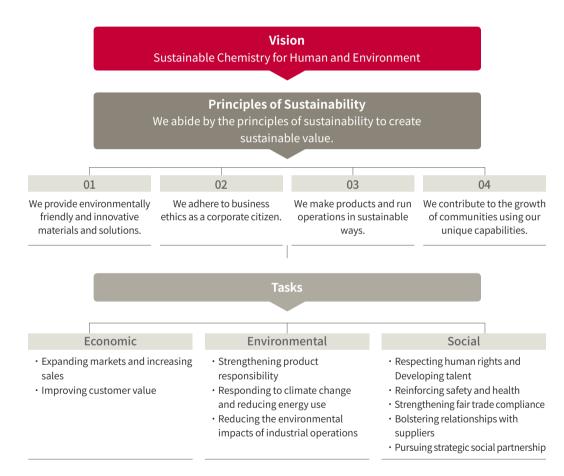
Sustainability Management System

To become an element supplier that creates sustainable future values, LG Chem has established a sustainable business management vision of 'Sustainable Chemistry for Humanity and Environment' and selected 10 core objectives, together with the sustainable management principles, in the areas of economy, environment, and society.

Stakeholder Engagement

LG Chem has established a system of participation for direct and indirect stakeholders such as shareholders, investors, customers, employees, NGOs, local community representatives, academic researchers and experts, industrial associations and organizations, media, and governmental agencies to gather various opinions. Among the collected opinions and information, aspects that may cause significant influence on the economy, society, and environment are reflected in decision-making related to sustainable business management and strengthens communication with and assures the trust of stakeholders.

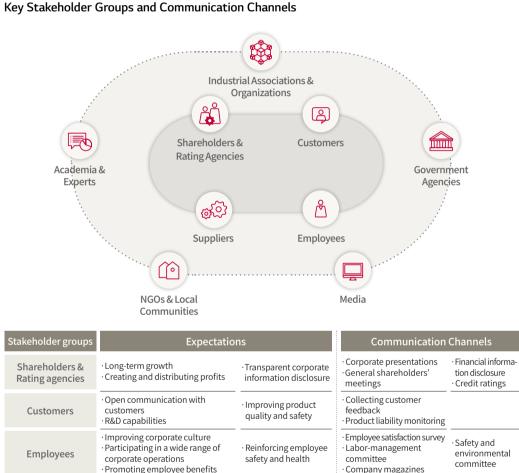
Sustainability Vision



Strengthening Communication with Internal and External Stakeholders

LG Chem has held panel meetings with experts in various areas of sustainable business management, sharing opinions on the current condition and future prospect of LG Chem's sustainable business management, with results being reflected in our business activities and reports. In 2015, 6 sustainable management experts participated in meetings, discussing 2014 sustainability reports, materiality assessment process, sustainability of LG Chem and chemistry industry. In addition, standardized CSR education is conducted overseas for dispatched corporation heads, employee consultative bodies, and new employees, contributing to better understanding of sustainable business management amongst executives and employees. LG Chem will also form and operate a CSR committee by 2016 in order to integrate the CSR activity of employees and strengthen cooperative systems between related divisions. Through these efforts, LG Chem aims to disclose core issues and activity results related to sustainable business management and will establish a more systematic and active CSR management system, whose performance analysis will be reflected in the following year's execution plan.

				/
Shareholders & Rating agencies	• Long-term growth • Creating and distributing profits	•Transparent corporate information disclosure	 Corporate presentations General shareholders' meetings 	 Financial informa- tion disclosure Credit ratings
Customers	 Open communication with customers R&D capabilities 	· Improving product quality and safety	 Collecting customer feedback Product liability monitoring 	
Employees	 Improving corporate culture Participating in a wide range of corporate operations Promoting employee benefits 	· Reinforcing employee safety and health	 Employee satisfaction survey Labor-management committee Company magazines 	· Safety and environmental committee
Suppliers	 Supporting suppliers and providing training Strategic social partnership Investing in local communities 		 Shared growth committee Supplier presentations 	• Business and technical support programs
NGOs & Local Communities	 Strategic social partnership Investing in local communities 	 Local CSR activities by overseas subsidiaries 	• Community cooperation in educational and welfare businesses	
Academia & Experts	 Industry-academic cooperation Technological development 	-	• Consultation • Joint R&D activities	
Industrial Associations & Organizations	• Responding to new regulations • Chemical management	·	• Councils and forums on sustainability	• Industry and business related business associations
Media	· Creating and distributing profits · Social partnership activities	•Technological innovation	· Informal press meetings	
Government Agencies	 Shared growth Fair trading and compliance 	• Occupational safety and health	·Advice on industrial policies	·Various pilot projects



Ten Year History of Sustainable **Business Management**

LG Chem has issued the annual sustainable business management report since 2006 to share the related achievements and to communicate with stakeholders with this year as the 10th publication.

The report in the year of 2007 first applied the materiality assessment method. Since 2013 Sustainability Report, we started applying GRI G4, meeting the global standards. In addition, we have improved the general level of sustainable management by fulfilling its social and environmental responsibilities in such ways as operating the dedicated CSR division, UNGC entry, corporate-wide safety and environment policies, establishment of the Energy Technology DB System etc.

Ten Year History

started to be published GRI Guideline 2002 applied • LG Petrochemical Co., Ltd.merged

• 2006 Sustainability report

- Web-based greenhouse gas management system established REACH4 response system established
- 2008 Sustainability Report released
- Automotive battery plant (Ochang) and industrial
- complex (Paju) construction commenced
- 2009 DJSI Asia-Pacific and Korea Greenhouse gas inventory established in all domestic business places

2011 Sustainability Report released • GRI G3.1 adopted

World largest automotive battery \bullet plant completed (Ochang)

CSR executive office newly founded \bullet IT-based energy and greenhouse gas emission amount management system established

2006

2008

2010 2009

2011

- 2005 Environment Report released
- LG Daesan Petrochemicals Co., Ltd. Merged

2007

- Introduced SCM including environmental regulations such as RoHS Established 'Jeong-Do Management Practice Guideline' for fair competition
- 2007 Sustainability report released Materiality assessment (GRI G3)
- High added-value synthetic resins elastomer development mass production
- Amount of chemicals made public
- Social voluntary organization founded
- 2009 Sustainability Report released
- LG GREEN 2020' published U.S. Michigan electric vehicle plant construction commenced
- Shared growth committee founded Chemical substance management DB/system established Greenhouse gas inventory established in the China-based business place

2010 Sustainability Report released Established a petrochemical • joint venture in Kazakhstan LG Polycarbonate merged Integrated RM Management system adopted \bullet

Environment management system established



Employee education 141.3 billion won(accumulated

- 2013 Sustainability Report released GRI G4 adopted
 - NanoH2O (water treatment filter manufacturer) acquired
 - Corporate-wide safety and \bullet environment policies established

2014 2012 2013

- 2014 Sustainability Report released
- China Guangzhou and Huanan(桦南) Technology Center founded Water treatment reverse osmosis
- membrane plant completed(Cheongju)
- Water resource inventory established Energy Technology DB System established
- 2012 Sustainability Report released 🍈
 - China Nanjing polymer 单 battery plant expanded
- CSR team newly established & CSR selfinspection implementation Energy management system introduced

Reporting • Business • CSR Activities

😨 Energy Saving

761.2 billion won(accumulated)

Environmental Investment



2015

Materiality Assessment

LG Chem prepares reports in compliance with the guidelines set forth by GRI(Global Reporting Initiative) G4 standards on report theme and content. Materiality Assessments are conducted through primary channels such as global standard analysis, leading company benchmarking, and internal/external stakeholder surveys, after which the annual report contents are selected and outline major issues within LG Chem. The procedure of the Materiality Assessment is as follows:

Materiality Assessment Process



Assessment Quantification of

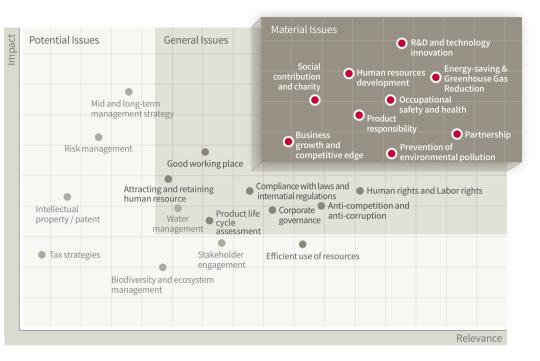
Selection of Key Issues Key Issues Selected The correlation between sustainability and relative effect of stakeholders is accounted for in prioritizing the issues, after which, the top 9 issues are chosen.

Result of Stakeholder Feedback Research

LG Chem collects stakeholder feedback on the previous year's sustainability reports to improve reporting quality and reflect their requirements. As a result, stakeholder satisfaction was high, above 4 points on average, on various components such as selection of report themes, understanding of CSR, and report contents. Aspects to be improved include utilization of visual material such as pictures and diagrams, quantitative (figures) data improvement, and other design visualization elements. Opinion breakdown:

Report-based understanding of CSR	4.12
Selection of major report themes	4.15
Appropriate opening of business info. 4	.03
Transparent report	4.06
Design that reflects corporate features	4.09
Readibility	4.06

Result of Materiality Assessment



Key Issues & Descriptions

Rank	Key Issues	Description	GRI G4 Aspect	page
1	R&D and technology innovation	In addition to continued R&D on new technology, we pursue technological innovation to achieve energy efficiency and safety.	Product & Service	26-29
2	& Greenhouse	We pursue eco-friendly, green processes in areas of the highest energy consumption and assume priority in responding to climate change with eco-friendly products.	Energy/mission	34-37 73
3	Occupational safety and health	Based on the institutionalized safety and health management system, we secure absolute safety and minimize potential risks.	Occupational safety and health	38-41 70
4	Human resources development	We train global talent that display professional capabilities based on the belief that 'talent is the very source of differentiated competitiveness'.	Training and Education	47-51
5	Partnership	We have established partnerships with other companies through mutually beneficial activities such as fair transaction, partner support, and CSR management.	Procurement Practice/Compe- tition Elimination	42-4
6	Product responsibility	Through systematic management of product eco-friendliness and stability, we have practiced our social and environmental responsibilities for products, strengthened quality competitiveness, and improved customer value.	Customer Safety & Health	30-33
7	Prevention of environmen- tal pollution	Through continued improvement of working environments such as toxic chemical management, air environment management, waste management, LG Chem hopes to minimize environmental impacts on the local community.	Waste Water and Solid Waste	38-43 71-73
8	Social contribution and charity	We are responsible for unique social contribution in areas such as youth education and eco-friendliness/energy.	Local Community	52-55
9	Business growth and competitive edge	By maintaining business growth and a competitive edge in climates of economic stagnation and fierce competition, we maximize economic value shared domestically, regionally, and with stakeholders.	Economic Achievement	65-6



VALUE ADDING ACTIVITIES

26	R&D AND TECHNOLOGY
	INNOVATION

- **30** REINFORCING PRODUCT RESPONSIBILITIES
- **34** GREENHOUSE GAS REDUCTION AND RESPONSE TO CLIMATE CHANGES
- **38** CREATING A CULTURE OF OCCUPATIONAL SAFETY, HEALTH, AND ENVIRONMENT
- 42 STRENGTHENING RELATIONSHIP WITH SUPPLIERS
- 46 HUMAN RESOURCES DEVELOPMENT
- 52 PROMOTING STRATEGIC SOCIAL CONTRIBUTION

R&D AND TECHNOLOGY INNOVATION

Continued R&D investment and technology innovation are core elements in strengthening an enterprise's competitiveness and creating values. Securing fundamental technologies has become essential for a company to survive continually. In addition, securing excellent research workforce is essential to maintain a leading position in the global technology market in which competition is ever fiercer. Accordingly, LG Chem develops its capacity in key business areas and prepares thoroughly for the future to become 'a global cutting-edge material producer.' To that end, LG Chem strengthens its competitiveness of core base technologies, continues investment into next-generation cutting-edge materials, technologies and R&D human resources to develop a new growth engine. Particularly, it is sought to create values that contribute to the society and environment in the long run by developing eco-friendly technologies and products.

KEY PERFORMANCE



investment ratio



The Ratio of New Products in Sales



GOAL & PERFORMANCE

2015 Goals	Finding new business challenges Wider application of the core base technology Expansion of promising material businesses Non-Display R&D area expansion Development of energy solutions for each application
2015 Performance	 Successfully introducing new business in water treatment and strengthening its competitiveness Focusing more on developing basic material market-leading products such as PO, SAP,
2015 Pe	synthetic rubber · Acquiring technology for fast-charging, high- capacity, high-energy-density, and ultrathin battery products
als	Continuously developing core substances for OLED and materials for next-generation display Increasing R&D investment to 720 billion won and B& programment to 720 billion won
2016 Goals	and R&D manpower to 4,200 persons · Future-oriented portfolio management (long-term) : R&D ratio of 23.6% anticipating business
	· Finding new business area and early business

: Energy, water, and bioindustry sectors

promotion

Corporate-wide R&D Implementation and Management System

Strengthening the R&D Implementation System

LG Chem seeks to find new business areas based on its constant investment into R&D and secured core technologies. Particularly, the focus of R&D is on next-generation display materials, green energy areas, and eco-friendly / highly functional materials as future growth areas.

To make good use of external technologies, the Open Innovation system is utilized to share ideas with overseas companies that own various global networks, carrying out businesses through collaboration with them.

In addition, the technology exchange system includes monthly research topic instruction and presentation, annual technology exchange meetings, etc.

For efficient management of intellectual properties, the group dedicated to intellectual property management is operated and manage patents for each step of R&D.

Expansion

LG Chem operates the domestic/overseas Tech Centers and technology development center to optimize production and response to customer feedbacks as well as the research center directly managed by the operation division for the basic research and product development in each business area. The



Research Organization & Infrastructure

Corporate R&D Center
atform Technol- / Research Center Research Center
Japan R&D Center
Basic Materials & Chemicals R&D Center
Tech Center/Business Sector T/S Team
IT&E Materials R&D Center
Technology/Development Department*
Advanced Materials R&D Center
Technology/Development Department*
Battery R&D Center
Automotive Battery Development Center
obile Battery Development Center
ESS Development Center
Overseas Corporation Development Org.
ome teams are operated as R&D units

* Under this department, some teams are operated as R&D units

Corporate R&D Center under Research Park supports technology innovation by operating the Platform Technology Research Center to strengthen the current business competitiveness and Future Technology Research Center to continue new business and technology research. In 2015, Gwacheon R&D Center was newly opened to expand the research infrastructures. LG Science Park, the largest convergence research complex in Korea will be operated by 2017, for researches mainly on future fundamental technologies and synergy areas among affiliates.

Strengthening Competitiveness through the Development of New Business Areas and Base Technologies

Development of Water Treatment Reverse Osmosis(RO) Membranes

To foster the water treatment business which is a core of future eco-friendly business as a new growth engine, LG Chem has adopted the nano complex substance reaction technology secured by NanoH2O, which is a water treatment filter producer in the U.S., and developed the water treatment RO membranes of superior performance to existing products. RO membranes mass production started at Cheongju Plant with the mass production stabilization process applied, and the sea water desalination filter has demonstrated its highest level of desalination performance up to 99.85%. With such differentiated technical power and stable supply capacity recognized, RO membranes exclusive supply contracts have been concluded for 8 sea water desalination projects in 5 countries including Egypt in 2015.

Core Element Development for the OLED

The OLED (Organic Light Emitting Diode) is a luminous element through which electric charges from anode and cathode are converted into light in reaction to luminous organic substances. LG Chem has conducted research on the luminous layer and common layer which are core organic elements applicable to mobile devices, TVs, and curved display sets. In 2015, it developed the adhesive film element that features the outstanding moisture blocking performance, which is a core element for plastic OLEDs. This enhanced the lifespan and strength of plastic OLED elements. The reflection-preventive coating film for OLED TVs minimizes dazzling and improves visual recognition. LG Chem also has developed the BEZIL printing ink for OLED TVs, providing a solution for thin OLED TV manufacturing.



Water treatment reverse osmosis(RO) membranes

28

Interview

Sung-soo, Yoon

Center

Research Fellow of Platform

Technology, Corporate R&D

With a view to vaulting into a

R&D, LG Chem strengthens

the competitiveness of its

core generic technology

and actively invests in and

supports next-generation

materials and technology.

High-molecular addition

polymerization is a core

generic technology that can

contribute equally to all areas

of LG Chem's business and has

a wide range of applications.

Our research team, which

has acquired technology for

controlling high-molecular

surface properties, creates

synergy from collaboration

with other research teams

affiliates of the Group. By

and research labs of the other

applying ourselves to develop core differentiated materials and brand-new applications, we will help LG Chem grow into a world-class materials maker.

structure and controlling

materials company with strong

Development of Differentiated Products Based on the Basic Materials & Chemicals Technology

Highly Functional Nanocomposite-SAP

The fiercer competition in the global diaper market than ever before demands technology improvement and differentiation. In response, LG Chem has developed 2 new products with 6 to 22% better absorption rates than competitors in application of the newly developed Nanocomposite-Network technology and SAP particle surface stabilization technology. The application area has been expanded to other 3 products. In the future, the development of differentiated SAP products will be accelerated by expanding the application to other new products of new concepts and functions.

Development of High-stiffness Eco-friendly mPP(metallocene PP) Products

Metallocene PP is light and easy to recycle. It is widely used for high quality masks, industrial filters, baby feeding bottles, and medical items. LG Chem has developed next-generation metallocene PP products with better properties and eco-friendliness than existing products based on the existing base technology of metallocene catalysts and provide differentiated quality to customers. In the future, more metallocene PP products will be developed continually in the area of high stiffness / ecofriendly products.

Technology Innovation in the Area of IT&E Materials/ Advanced Materials for Display Items

Ultra-slim Wide View Polarizing Plate Technology for Tablet LCD Products

LG Chem has developed the ultra-slim wide view polarizing plate technology applicable to tablet LCDs to enter the market of highly profitable high-end premium polarizing plates among small and medium-sized polarizing plates. These plates feature the thinness of 220µm and wide view of 360 degrees in every direction. In the future, as the application areas will be expanded to smart phone and automotive displays, etc. , LG Chem will lead the high-end premium polarizing plates market.

Display PI Substrate Material-Plastic Substrate Material / Barrier Film

As interests in displays that are flexible, light, and bendable increase. LG Chem develops next-generation plastic substrates of high heat-resistance that can replace existing glass substrates. These substrates can be applied to flexible OLED, rollable e-paper, etc. LG Chem is putting forth efforts into providing mankind with new values with its research on various optical resin polymers that feature transparency and outstanding functions as well as compensation films for displays.

Competitive Edge of Battery Technology

Free-Form Polymer Battery With Outstanding Space Utilization

LG Chem has developed free-form polymer battery differentiated from existing fixed-form batteries. As freeform polymer batteries can be utilized efficiently in small space, they are applicable to wearable devices, smart phones, etc. Accordingly, LG Chem has developed worldfirst smart-watch hexagon batteries and wrist band type wire batteries in application of the existing wire battery technology, enhancing the IT device use and efficiency as well as contributing to product differentiation. By developing various designs of free-form batteries that lead the market every year, LG Chem continues maintaining its superior position in the future IT market.

High Energy Density High-rate Recharging EV Batteries

LG Chem has developed high energy density batteries that allow drivers to travel long-distances of up to 500km with one recharge. Following the enhancement of highspeed recharging capabilities, LG Chem products are expected to lead in the EV battery trend, which utilizes high-speed recharging technology for long-distance driving. In addition, first-rate global levels of performance have been secured by LG Chem in the production of high output and safety products. LG Chem's battery energy density and high-speed recharging technology currently remain superior to those of its competitors. At present, the driving distance recorded by LG Chem's technology is about 3 times longer than that of common EV (about 150km), and the time inefficiency problems caused by recharging have also been resolved. It is expected that these batteries and high-speed charging products will contribute to the popularization of EV.

R&D Workforce [Unit:Person] 2015 3,360

2014 3,148

2013 2,590

R&D Invest [Unit:billion won, %]

III Total Amount of Investment - Sales toR&D Investment Ratio

New Product Sales

New Product Sales

2015 5,425

in total sales

594 2015 - 2.9 2014 513 - 2.3 2013 450 - 1.9

- The percentage of new products

2014 5,084 22.5

2013 4,254 18.4

[Unit:billion won, %]

= 26.8

ent 7,260 Registration 8,079 Application Total



Future Growth

Engine

Hexagon Battery



Wire Battery

High-density Energy Storage System Development

The smallest and lightest energy storage system for housing solar energy, which features the world's best energy density, was developed in the year of 2015.

This product is designed with the ability to expand its capacity according to customer needs. The high energy density power storage system, optimized for a power grid, has been developed with a 1GWh supply contract, the largest scale in the world. 1GWh is electric power that 100,000 households (composed of 4 members each) can utilize within a single day. LG Chem hopes to continue strengthening its position in the market through its research to develop high-capacity, compact products.

Systematic Intellectual Property Management

Prevention of/Effective Response to Disputes LG Chem has established a basis for continued new business growth through quality improvement of its patented portfolios. By using IP-R&D activities to cultivate source technologies for businesses of the future and cutting-edge materials, LG Chem has put forth efforts into finding and registering excellent patents, focusing on strategically obtaining more patents and intellectual property both at home and abroad. In addition, LG Chem has strengthened functions related to proactively monitoring and preventing risks of patent disputes through strategic patent management system.

As of 2015, LG Chem owns about 35,420 intellectual property rights, among which, future growth engines and IT&E material businesses account for about 20%

Patent management Classification Domestic Pat-15,339

Quality Improvement of Patented Portfolios and

		[U	nit:case]
Over- seas Patent	Domes- tic Trade- mark	Overseas Trade- mark	Total
9,951	83	217	17,511
9,821	1	8	17,909
19,772	84	225	35,420



respectively and those in the area of energy solutions account for about 42%. LG Chem focuses on strengthening competitiveness of intellectual property in the areas of cutting-edge materials and technologies through the convergence of core base technologies.

Progressive Patent Management and Dedicated Organization Operation

LG Chem sought out the convergence of R&D management and intellectual property management by supporting an IP workforce to secure patents and establish utilization strategies that covered product life cycle from the early stages of R&D to the point of commercialization.

Additionally, for effective company-wide intellectual property management, LG Chem also operates an organization dedicated to intellectual property protection. LG Chem is working to strengthen the system of patent strategy establishment within various business sectors. With combined efforts of talented LG Chem professionals such as patent attorneys and legal experts, LG Chem is always displaying its professionalism in activities related to intellectual property and has developed its patent-related capabilities in various regions by dispatching experts to strategic regions overseas.

Expansion of R&D Investment

Efforts to Secure Talented R&D Human Resources To develop differentiated next-generation products and new businesses, it is essential to recruit, train, and retain talented R&D professionals with outstanding capabilities. LG Chem secures exceptional R&D talent through campus recruiting and onsite interviews at major local universities in the U.S., Europe, and Japan as well as domestic industry-university cooperative programs.

In addition, workshops and exchange meetings with domestic and foreign professors, as well as lab tours to seek out major domestic research teams are just two examples of various promotional activities carried out to attract potential R&D talent. To improve work satisfaction among researchers, efforts are put forth into creating a sound organizational culture based on the spirit of creativity and autonomy, and operation of the Research Expert System is conducted to improve researchers' capabilities and support their growth. The number of R&D talent is also expected to climb from about 3,300 at present to about 4,200 by 2016.

Further Investment into R&D and Technology Innovation

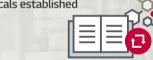
In order to lead future markets, LG Chem has continued to increase investment into R&D infrastructure. The R&D intensity (sales to R&D investment ratio) will be expanded to 3.3% by 2016, and the ratio of new product sales, which are expected to contribute significantly to total sales, is projected to increase from 26.8% up to 30%.

2 REINFORCING PRODUCT RESPONSIBILITY

As various regulations on product safety and environmental impacts are becoming stricter in Korea and abroad, the necessity for systematic chemical substance management is growing. Furthermore, as human rights and labor issues have grown in importance, the systematic management of conflict minerals has become a major risk of product responsibility. Accordingly, numerous chemical businesses are being required to take social responsibility as well as the safety and environmental impact of their products. If companies fail to respond properly, their competitiveness may be weakened due to financial loss and diminished trust. To respond to strict global regulations more actively, LG Chem has improved its chemical management system and put forth numerous efforts to adhere to its social responsibilities by participating in associations related to conflict mineral resolution. In addition, LG Chem pays keen attention to systematic quality management in order to improve customer value through overall quality improvement.

KEY PERFORMANCE

System to manage substances subject to registration according to the Act on the Registration and Evaluation of Chemicals established



Registration of product information on basic materials & chemical elements



for

2015

Goals

2016

Huanan(桦南) Technology Center founded in China



GOAL & PERFORMANCE

- · Established response system to the Act on the Registration and Evaluation of Chemicals
- Goals · More education programs about regulations for
- 2 suppliers · Improving competitiveness through quality
- improvement activities, etc ·Strengthening the conflict mineral management system

· Improving the chemicals management system (CHARMs)

• Development of a system to inspect product materials and elements that are subject to registration in accordance with the Act on the Registration and Evaluation of Chemicals · 'Conference on Responding to Chemical Regulations' held for suppliers · Manual for responses to conflict mineral regulations and support for CMRT preparation Conflict mineral content check for suppliers Regulation certificate revision (REACH certificate modification and PAHs certificate production) and support for MSDS preparation

100% registration of basic material & chemical information

Securing common registration materials in accordance with the Act on the Registration and Evaluation of Chemicals in 2018 (17 types of substances subject to registration) Education for suppliers and company employees in related divisions to strengthen their response capabilities to environmental regulations MSDS registration of exported items in the chemical management system (more than 4,000 materials)

ability as well as customer satisfaction.

Systematic Response to Chemical Regulations

Response to Domestic Regulations LG Chem has been actively responding to the Act on the Registration and Evaluation of Chemicals and the Toxic Chemicals Control Act, enforced in the year of 2015. By establishing a system to manage substances subject to registration according to the new law, LG Chem has evaluated new and existing substances found within its products, and paid keen attention to all clauses found within the Act on the Registration and Evaluation of Chemicals with regard items that require registration. The quantities and usage of new and existing chemicals that are manufactured, imported, and sold are reported to the Ministry of Environment in addition to the total inspection of directly imported materials in compliance with the Act. In 2015, LG Chem joined Korea Petrochemical Industry Association and initiated its activity as a representative for common substance registration mandated by the 2015 act. Accordingly, it plans to form a consortium and conduct a documentary survey in order to complete the public registration of existing chemicals by June 2018. Furthermore, LG Chem has effectively conducted various systematic response activities to domestic regulations, including checking and limiting the amount of imported toxic substances in response to the Toxic Chemicals Control Act.

Response to Global Regulations

As global regulations on chemicals become stricter, LG Chem has produced and applied, in its overall business activities, a manual to respond to global product environment regulations. In 2015, LG Chem revised its 'Instructions for Eco-friendly Product Development and Management,' in order to present clear standards for product element management, such as restriction on the use of designated hazardous substances in Korea

Creation of Customer Values by Improving Product Reliability

Strengthening Product Responsibility and the Quality Management System

LG Chem manages social and environmental issues found within the overall process of product development, production, and supply with the goal of fulfilling its environmental and social responsibilities as well as systematically managing product quality. It also has established and operated management of hazardous substances based on its product material examination system. In addition, LG Chem puts forth constant efforts into improving product safety and reliability by monitoring product stability and recent chemical regulations. For efficient quality management and continued quality improvement, LG Chem has established and operated organizations dedicated to quality management. LG Chem's strive for quality innovation at each business sector contributes to improving product reli-

and abroad. In relation to the management of chemicals harmful to human bodies and the environment, LG Chem has presented a guide issues found within product development, production and supply such as prohibition of African conflict area minerals. The company. through active participation in halogen-free activities, and a sense of environmental responsibility, also contributes to international environment protection efforts. LG Chem also has held annual meetings among material suppliers and purchase suppliers in order to share information on trends of various domestic and foreign chemical regulations and to raise awareness of safe management of chemicals by providing a guide to ecofriendly supply networks.

Strengthening Chemical Management

Improvement of Chemicals Management System

LG Chem has achieved various systematic improvements in 2015 since the establishment of CHARMs(Chemical Assurance and Regulation Management System), which is a chemical management system for used materials and products created in 2014. LG Chem has automated the inspection and product regulation certification process as well as MSDS (Material Safety Data Sheets) through CHARMs, and has produced product environment certificates within its system. LG Chem completed its material element inspection on basic material products and chemicals and posted results by utilizing CHARMs. LG Chem has checked RoHS* content in every material and element, being able to indicate that products do not contain outlined hazardous substances. Material Safety Data Sheets of products are provided in the IT system in 33 languages. By reflecting global customer needs and the newest international regulation trends in the form of system certificates, LG Chem is striving to improve product safety and lessen environmental impact.

*RoHS (Restriction of Hazardous Substances Directive): Environmental regulations initiated by the EU to restrict the use of 6 specific hazardous substances (lead, cadmium, mercury, hexavalent chrome, and flame-retarding materials) in electric/electronic products.



2015 Conference on Responding to Chemical Regulations

Quality Innovation Activity & Achievement

Basic Materials & Chemicals

The quality management organization is operated to establish quality-related policies, while defective product delivery is prevented through the inspection, whose reliability is constantly examined. To respond to customers CTQ (Critical to Quality) promptly, efforts are put forth into grasping and improving the quality level of major products. Quality surveys are also conducted to evaluate quality reviews among customers and to compare the current quality results with that of competitors to find ways of improvement. In the future, LG Chem plans to continue examining major elements of quality satisfaction through the customer's perspective and maximize customer satisfaction by setting clear goals and objectively measuring present quality status.

Advanced Materials

To improve customer satisfaction through quality competitiveness, a quality management organization is operated specifically for the business sectors comprised under Advanced Materials for Displays and Energy Solutions. Superior business positionality is sought after through differentiated quality. Various activities are conducted to meet the diverse needs of customers such as an advanced quality system, removal of quality risks, the Customer Claim Zero goal, quality accident reoccurrence prevention monitoring, etc. As a result of these activities, the business sector of Advanced Materials of LCD/OLED achieved 'customer claim zero' in 2015, as LG Chem plans to continue its early quality stabilization activities for new advanced materials to minimize customer inconvenience.

*APQP : Advanced Production Quality Planning / ASES : Alliance Supplier Evaluation Standard / FSM : Functional Safety Management

LG Chem has added conflict minerals to the list of prohibited substances in the instructions for product responsibility management (LEVEL 2) provided to management. The material and element survey process includes checks for purchased materials to determine conflict minerals presence and checking certificates in an effort to strengthen ethical responsibilities beginning at the preliminary phase of purchasing. Participating in 'LG 4 Affiliates Conflict Mineral Association' which is comprised of four affiliates of LG Group, LG Chem shares information on the current status of conflict mineral utilization and seeks ways to respond to this crisis by including surveys of conflict mineral uses among suppliers and operation guides that outline conflict mineral use.

Improvement of Product Responsibility Management Capabilities among Employees

LG Chem conducts various education activities on product responsibility among employees, such as, education on MSDS preparation and oversight among managers in related departments, and education on the Act on the Registration and Evaluation of Chemicals as well as trends in production environment regulations within the Tech Center and the technology institute. Especially among departments related to sales and purchasing, education programs are being conducted on domestic and foreign product environment regulation trends and the LG Chem chemical substance management system in order to connect practical duties with LG Chem's overall product safety & environment management. In addition to education for employees, the Safety & Environment Portal is utilized to provide quality managers at each business sector with newest information on global product environment stability and hazardous substance regulations. Essential aspects of regulations passed in countries where LG Chem operates a subsidiary are also shared to strengthen managers' capabilities in preventing corporate and legal regulations from being violated.

Strengthening Customer Services for Product Responsibility

Customer Service through Tech Center

LG Chem provides customers with various technical services by operating the Tech Center, which is an independent organization that provides service at various contact points for customers. Among more than 300 researchers, those with a master or doctor's degree account for about 65% of the center's workforce, providing a higher level of technical support than most domestic business research centers. In 2015, the 'Huanan(桦南) Technology Center' was founded in the southern part of China to overcome the limits of the existing Tech Center by responding to product issues promptly, improving reliability of product stability, and creating customer satisfaction with high quality products. The center seeks to establish a foundation for a synergy effect between localization and communication with customers in the global market.

Quality Innovation in Each Business sector

Maximization of Customer Satisfaction through Quality Innovation

LG Chem is always seeking new ways to secure competitiveness through quality enhancement, such as strengthening suppliers' quality capabilities. Each business sector under the operation headquarters has its own quality management organization that oversees efficient quality monitoring depending on the business type and product characteristics. In addition, quality meetings are held quarterly to share the direction and achievements of quality innovation between each individual company and the chief executives in charge of quality management.



Establishment of Huanan(桦南) Technology Center in China



Huanan(桦南) Technology Center in China



Interview



As preference for 'eco-

and the global market

pursues green industry

recently, the demands for

systematic management

of hazardous chemicals

compliance with global

regulation/restriction of

chemicals that are

are increasing around the

globe accordingly. Besides,

getting stricter around the

globe including Europe

has become a major

requirement to secure

competitiveness in the

chemical industry. In

response. LG Chem has

established its product

element database and

compliance monitoring

stewardship. To respond to the Act on the Registration and Evaluation of Chemicals proactively, LG Chem holds the Annual Meeting

for Response to Chemical Regulations in an effort to

maintain close cooperation

with partners in this regard.

chemical regulatory

system for product

products' increases



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IT&E Materials



As business environment is turning to requiring more diversified and customized items, quality issues increase. As the speed of product development and release is accelerated, the importance of proactive quality management is growing more than ever before. Accordingly, LG Chem is operating an organization exclusively responsible for quality assurance and "Quality Committee" led by the top management that monthly analyzes quality issues including quality competitiveness of major products and improvement plans. Furthermore, the regular quality management system reduces internal loss while customer satisfaction is improved through management of subcontractors' product quality. The quality management system has been established in reflection of each product's unique characteristics and operates with the aim to proactively strengthen the level of quality assurance and stabilize new products in their preliminary stages.

Energy Solutions



Quality management organizations are formed for each business sector depending on product characteristics such as small size, automotive items, ESS, etc. to secure quality competitiveness. In addition, a separate reliability team is operated to strengthen product stability and performance. Particularly, preventive quality innovation activities are conducted amongst developers, mass producers, and partner companies to reduce the number of defective products down to zero. FEMA activities for preventing reoccurrence in product development, CTQ(Critical to Quality), CTP(Critical to Process) and Control Plan are optimized and improved. In the mass production phase, the EC/SPC management system is initiated and implemented. The system of monitoring is operated in accordance with the control plan standards that guide quality competitiveness.

Case Improvement of Customer Satisfaction by Strengthening Quality Management

As the automobile battery market rapidly grows and new business areas diversify, the necessity for systematic quality management is becoming more urgent. In response, LG Chem has established a development/mass production quality system (LGC APQP*) that major customers in the energy solution business sector, including global automotive companies, have demanded. After objective evaluation by customers, LG Chem obtained the global top automotive parts partner quality assurance certificate (ASES* Rank 'A') in December 2015, a first for LG Chem in the battery industry. In addition, the specially designed process to secure functional safety of automotive ESS batteries obtained ISO26262 FSM* certification (certification agency: TUV Rheinland), catapulting LG Chem to receive recognition as a top battery supplier in the global market of automotive energy solutions.

3 GREENHOUSE GAS REDUCTION AND RESPONSE TO CLIMATE CHANGES

As global warming is drawing keen attention internationally, response to greenhouse gas reduction and climate change is becoming recognized as a shared issue among nations within the international community. After 2020, the New Climate Regime will be created through the COP 21 in 2015. Since then, the response system has been expanded to cover not only major emitters such as the U.S., China, and EU but also developing countries. Accordingly, the Korean government set a goal to reduce national greenhouse gas emissions by as much as 37% of BAU by 2030. To this end, the government has introduced and operated the greenhouse gas · energy target management system, and the greenhouse emission trading system. Recognizing such changes as a crisis as well as an opportunity, LG Chem is now focusing its energy on improving the greenhouse gas · energy target management and reduction analysis system. Particularly, LG Chem seeks to reduce emissions directly by improving the process efficiency as well as indirectly by promoting high added value production and low energy consumption production.

KEY PERFORMANCE

Introduction of Ochang/Naju Plant **Energy Achievement Evaluation** System



Energy Saving



Establishment of an Energy Portal



· Additional introduction of energy-saving activities

GOAL & PERFORMANCE

- Goals for each process and facility
- · Improvement of engineer capabilities 2 · Strengthening internal management system for
- proactive response to emissions trading 201
- Promoting greenhouse gas reduction in partner ventures
- Expanding energy saving activities such as energy consulting, facility-specific activity, and legal energy diagnosis, differentiated and tailored to different worksite
- · Creating an energy portal (with 1,000 technology databases registere
- Perfor Automated reflection of the cost for purchasing emission permits in monthly accounting and
- 2015 developing tools for calculating marginal reduction cost (350 of them)
 - Developing guidelines on analyzing the effects of greenhouse has on new or additional investments Implementing external reduction project (Green Credit) Participating in a pilot project for water inventory and CDP water evaluation pilot
- Discovering new items in energy saving and strengthening monitoring of energy saving activities
- Goals Implementing establishment of energy technology database and upgrade of reduction technology 9
- Applying energy management performance evaluation in all worksites Upgrading global greenhouse has management ability through improving in-company management system Establishing guidelines on analyzing the profitability of energy investment and system for timely purchase of emission permits Increasing local and international operations in water supply inventory

Strategic Response System to **Climate Changes**

Strategies for Proactive Response to Climate Changes

LG Chem practices 'Green Business' as part of a proactive response to government's effort regarding climate change and minimizes impact brought on by changes in domestic and foreign energy policies. In addition, LG Chem is seeking to take leaps forward as an innovative 'Green Company' by strengthening support for 'Green Business' practices and the company's eco-friendly competitiveness within each business sector.

With a view to contributing not only to directly reducing greenhouse gas through saving energy in production but also indirectly reducing greenhouse gas in consumers' use of its products, LG Chem applies itself to researching and developing high-efficiency batteries for electric vehicles and energy storage system. Especially EV discharge less greenhouse gas than the existing fossil fuel vehicles, while energy storage system contributes to raising the stability in national management of power demand and supply and power supply from new & renewable energy, thus suppressing construction of additional power plants.

For greenhouse gas and energy data to be managed efficiently, an online management system has been established, spanning various workplaces at home and abroad. As the emission trading system becomes normalized in Korea, LG Chem is training experts specialized in understanding the financial impact of carbon regulations and the emission trading system.

Proactive Response to Greenhouse Gas Emissions Trading

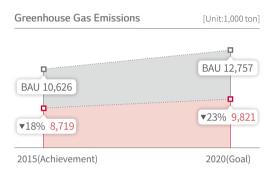
In preparation for the implementation of emissions trading in January 2015, LG Chem has taken proactive steps toward greenhouse gas reduction as well as emission control by planning cost-effective emission trading portfolios. To meet the current demands of greenhouse gas reduction, LG Chem has estimated the MAC(Marginal Abatement Cost) for each process and has been conducting effective reduction activities accordingly. To increase awareness of the importance of greenhouse gas reduction

CDP is an international institution that evaluates cli- LG Chem's Level of Response to Climate Changes in 2015 mate change responses among major listed companies around the globe. Having its climate change data management transparency and achievements in emissions reduction recognized, LG Chem has been awarded as 'CDP Excellent company in climate change Response' for 3 consecutive years since 2013. LG Chem plans to continue fulfilling its social responsibilities and strengthening its investment and management activity in response to climate change.

in production activity, LG Chem reflects its emission trading expenses in monthly accounting records. LG Chem has also automated the accounting and input process, and currently operates a top-tier greenhouse gas management system that few companies in Korea have integrated into their business structure.

Strengthening the Management of Greenhouse Gas Reduction Goals

LG Chem has established and worked towards mid/longterm energy-saving goals as well as a 23% reduction of BAU by 2020 with an overall aim to reduce greenhouse gas emissions and energy consumption. LG Chem has achieved annual reduction goals every year since their implementation. For more effective operation, reduction activities for each energy source have been reinforced.



Communication with Stakeholders

LG Chem is fulfilling its legal obligations regarding greenhouse gas emission and energy consumption. The company has established greenhouse gas reduction and energy-saving plans accordingly, conducting various ecofriendly activities such as introduction of new emission-reducing technologies. For strengthening communication with stakeholders related to climate change, carbon emission reports required by customers and external institutions are prepared, provided, and made public. The company will make related information available to its investors and the public to raise the consumer awareness on climate change and further promote corporate development of eco-friendly products and corporate responses to climate change.

Case Awarded CDP Excellent Company in Climate Change Response for 3 Consecutive Years

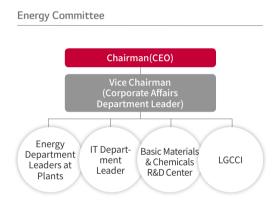




Establishment of the Company-wide **Response System**

Operation of the Corporate Energy Committee

LG Chem operates the Corporate Energy Committee to address current climate change issues through strategic energy conservation/greenhouse gas reduction activities. In order to enthusiastically continue greenhouse gas reduction and energy-saving activities at each workplace, exemplary sectors are routinely provided with incentives. In addition, the committee emphasizes the importance of proactive response to emissions trading in terms of business management and social responsibilities, applying external certification systems such as performance evaluation system to each workplace in order to facilitate energy-saving activities.



Efficient Energy Saving through Energy Consulting

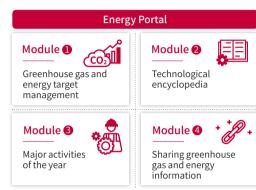
With energy consulting, LG Chem works to ensure efficient use of energy resources by discovering ideas for improving core production facilities and strengthening engineer skills. Energy consulting, which includes process analysis, energy loss check, and selecting topics for implementation, discovers topics for improving energy loss through process analysis performed by the staff in charge.

In 2015, the company conducted energy consulting for 3 facilities of Acryl/SAP Division and as a result, accomplished a cutback of 5.4 billion won. Looking ahead, the company will share reduction methods and achievements through its technology sharing group with a view to discovering additional topics for saving and strengthening engineer's problem-solving skills.

Establishment of the Energy Technology DB System

LG Chem has created a company-wide energy portal for the purpose of more actively supporting an assortment of energy and greenhouse gas reduction activities implemented at its worksites. In particular, the technical indexing module, which is a database that compiles key details of in-company energy saving efforts so far implemented at different company worksites, presents in a single view information on technical sum-

mary, achievements, and investments involved in those instances of energy saving. All-time sharing of the specific technological know-how among different worksites is expected to prod similar manufacturing processes to adopt energy saving technology, thus bringing much help in energy managers' decision to invest in energy saving.



Green Credit Business of SMEs

'Green Credit' businesses induce greenhouse gas emissions among SMEs through the cooperation among large companies subject to greenhouse gas reduction regulations and SMEs that are not subject to such regulations. This way, companies subject to regulations can relieve the burden while the goal of national greenhouse gas reduction is achieved more closely.

LG Chem finds SMEs willing to reduce emissions and promote businesses that introduce high-efficiency process facilities, which correspond to the emission reduction methodologies for external businesses acknowledged by the Ministry of Environment. Such businesses will be recognized as greenhouse gas reduction in the future. LG Chem provides technical and financial support for SMEs' emission reduction and relieves the burden of greenhouse gas reduction through certification of external emission reduction as well as contribute to mutual cooperation among large and small/medium-sized companies.



Strengthening Response Activities at Each Workplace

Participation of Cheongiu Plant in Demand Response

To prevent rolling blackouts caused by low electric power reserve rates and insufficiency of electric power supply, the Cheongju Plant has been actively participating in Reliability Demand Response since 2015.

This is a project created to produce economic benefits such as better efficiency of national electric power market operation, reduction of electricity charges among participant companies, and acquisition of incentives. The Cheongju Plant has achieved a 2,200kW contracted capacity in the year of 2015 by introducing and operating high-efficiency energy facilities. In 2016, the contracted capacity was increased to 2,700kW, and more efficient facility operation and active energy-saving strategies are scheduled to be implemented in order to achieve this goal.

Introduction of Energy Performance Evaluation System - Ochang/Naju Plants

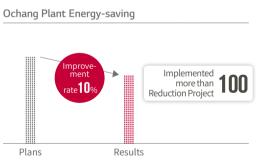


Interview

Kyu-cheol, Choi Head of Yeosu VCM Process Technology Team

LG Chem has conducted greenhouse gas reduction activity continually to mitigate worldwide climate change. It meets national energy policies as well by expanding new green businesses. Yeosu VCM Plant, for example, maximizes waste heat recollection and enhances the process operation efficiency for each energy sources. In 2015, the ESS (energy storage system) was introduced, contributing to saving electric power purchase expenses at the plant as well as controlling new plant foundation and stabilizing new and renewable energy supply nationwide. In the future, LG Chem will continue improving the corporate competitiveness in effective response to climate changes and fulfill its social responsibility of greenhouse gas reduction.

Ochang/Naju Plants have been conducting Energy Management Performance Evaluation Pilot Projects. These two cases are major examples of energy management that led to substantial energy-saving results and EnMS certification at the same time. Since the introduction of the energy management system, the monitoring system for energy use and reduction has been strengthened. After



The BPA process has been conducting long-term energy-saving activities and is currently reestablishing its process operation methods and optimizing the energy network further: The general network has been optimized by maximizing heat source recollection at each step and changing the steam flow while the process redesign was successfully completed by utilizing low-temperature heat sources instead of high-temperature. Yeosu and Daesan BPA Plants currently hold dominant positions related to steam sources by applying mutual improvement ideas.



Case Optimization of BPA Process Energy Network

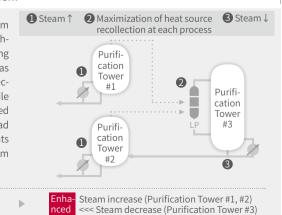
Steam decrease (Purification Tower #1, #2) < Steam increase (Purification Tower #3)

the energy committee and working group were established, the executive ability and achievement measurement by managers have also been drastically improved.

Especially at the Ochang Plant, more than 100 reduction projects have been implemented with 10% of them producing quite outstanding results, going on to be recognized by the Korea Energy Agency. LG Chem seeks to expand the application of the Energy Performance Evaluation System corporate-widely so that energy-saving activities can be promoted in more of its company worksites. In addition, LG Chem will continue to contribute to climate change through internal and external recognition of reduction result.

Yeosu PC Plant Distillation Process Improvement

LG Chem has been achieving greenhouse gas reduction and energy-saving success through collaboration between research centers and production plants as well as analysis of major energy-consuming processes. Distillation processes consume a large amount of energy, approximately 11% of the total national energy consumption, and they are widely used in various industrial sectors. In this regard, the Yeosu PC Plant has conducted a low-temperature waste heat steam production pilot project by utilizing heat pump technology that reduces energy consumption in the steam production process. It is estimated that through utilization of the features and advantages of new coolants, this technology can save 0.5 tons of steam per hour through converting unused low temperature waste heat into high temperature steam. To translate these benefits into the language of greenhouse gas emissions, the Yeosu PC Plant can effectively save about 600 tons per year. LG Chem plans to continuously seek out additional applicable distillation facilities and spread energy-saving knowledge throughout the company, creating significant energy-saving results. Efforts will continue to be put forth into optimizing the balance of utilities, improving energy efficiency, and developing low-quality heat source utilization as a method of responding to national energy-saving initiatives as well as continuously conducting greenhouse gas emission reduction activities.



4 CREATING A CULTURE OF OCCUPATIONAL SAFETY, HEALTH, AND ENVIRONMENT

As demands for safety and environment management at workplaces grew stronger, related laws and regulations have also been reinforced. Proactive response to risks related to environment safety such as prevention of critical disasters is regarded as a core element of sustainable business management. To improve the safety and environment management system, prevent incidents, and establish safe and environmental cultures, LG Chem has been conducting various education programs and campaigns to encourage employee participation. In addition, safe working environments have been created by strengthening management activities in consideration of each workplace's characteristics. Environmental impact on the local community is also monitored. Disease prevention and health promotion programs for employees according to their vocational characteristics are other examples of the ways in which LG Chem is working to create a safe and healthy work environment in all of its worksites.

KEY PERFORMANCE

Strengthening evaluation of executives' and organizations' performance in safe environment

(reflecting on-site management activities and internal improvement activities)

Holding Company-wide Safe **Environment Performance** Sharing Meeting



Performing safe environment inspection for all global places of business



GOAL & PERFORMANCE

- · Raise awareness of safety & environment among
- Goals employees · Prevention of accidents due to unsafe behaviors
- Safety & environment regulations and proactive
- 2015 response to customers' demand

·On-site management activities for managers and higher positions

- · Strengthening safety & environment education programs
- · On-site improvement activities
- Perfor · Strengthening safety & environment inspection · Proactive response to newly stipulated or
- 2015 revised laws and regulations Responding to customers' safety and environmental evaluation
- · Improving the business management system for
- better executive ability · Strengthening issue-centered safety &
- environment examination

Goal

2016 · Reinforcing suppliers' safety and environmental management

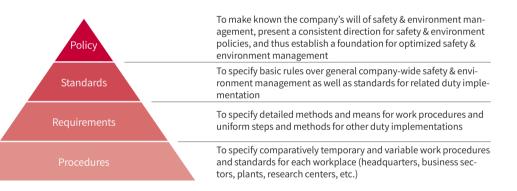
> · Strengthening safety and environmental education



LG Chem has created the Safety, Health & Environmental System in accordance with ISO 14001, OHSAS 18001, PSM (process safety report), RC (Responsible Care) and through this system, practices global Safety, Health

implementing the following principles.

- our social responsibility.



·Review of Safety and Environmental managemen ·Corrective measures for inappropriate Safety and Environmental aspects

·Safety and Environmental monitoring and achievement management Incident report and investigation Internal audits of Safety and Environmental

·Chemicals management Change management ·Suppliers' Safety and Environmental management ·Preventive/responsive measures for emergency situations Health management · Process safety data management ·Work safety approval Fire-preventive management Safety and Environmental inspection prior to operation Safe operation management •Transport Safety and Environmental management ·Product environment management ·Environmental operation management

Establishment of the Global Safety,

& Environmental management. The Safety, Health & Environmental System includes guidance on company-wide safety and health, environment regulations, rules, instructions, and detailed workplace instructions. Efforts are also put forth into securing independent verification and seeking aspects of improvement through third-party certification.

Safety, Health and Environmental Policy & Strategy

Here at LG Chem, we recognize that safety, health and environment(SH&E) is the fundamental element for securing differentiated competitiveness. For continuous improvement on SH&E performance, LG Chem will be committed to

· We will comply with all SH&E legal requirements and establish global-leading SH&E rules and best practices. • We will drive continuous innovation throughout the entire life cycle of the product to supply environment-friendly products and services.

• We will provide a safe and healthy work environment, and ensure the principle-adhering corporate culture. We will support our suppliers and local communities in the improvement of the SH&E practices as

• We will communicate our SH&E policies and programs with stakeholders.



Strengthening Safety, Health and Environmental

Operation of a Company-wide Safety and Environment Committee

LG Chem operates an executive safety and environment consultative body to ensure 'Zero' safety and environmental accidents. This body holds meetings twice a year, discussing key issues of safety and environment, major achievements, and discusses plans with management board members as well as each workplace's chief safety and environment managers.

Occupational Safety and Health Committee

LG Chem oversees the organization of the Occupational Safety and Health Committee at each workplace to prevent risks and manage the health of workers. This committee consists of an even ratio of employee representatives and worksite representatives, and it conducts investigations and supervises decision-making procedures on major safety and health issues.

Continued Improvement of Workplace Safety and Environmental Conditions

Strengthen Workplace Safety and Environmental Inspection

LG Chem divides the existing safety and environmental inspection system into 3 categories including the regular inspection, project inspection, and special inspection. The regular inspection is conducted company-wide once every 3 years in every workplace, and covers the business management system, process safety, facility and work safety, fire prevention, dangerous objects, and the environment. In 2015, the regular inspection was conducted in 3 domestic workplaces, 1 Research Park, and 8 overseas manufacturing facilities. The project inspection is conducted on items related to certain safety and environmental issues and done according to the management's demands. In 2015, the project inspection was completed with special attention paid to subcontractor safety management systems and emergency response systems.

The special inspection is conducted for workplaces according to the seriousness and frequency of disasters. In 2015, the inspection process was conducted a total of 31 times including the regular, project, and special inspections. In 2016, various project inspections are planned in addition to the regular inspection for facilities that are likely to display significant damage in the event of an accident or unforeseen incident, as well as for emergency response systems that respond to temporally sensitive risks.

Strengthening the Safety and Environment Management System

LG Chem has distributed its Safety and Environmental Guidelines among overseas corporations according to the company-wide integration policy and improved the safety and environment portal to strengthen the company-wide safety and environmental communication. In addition, the company has added new clauses related to safety and environment in the executives and organization performance evaluation in order to encourage more

active employee participation in safety and environmental improvement activities. In 2016, the evaluation system and leader's on-site management activity will be reinforced for improved safety and environmental executive ability, and programs to prevent unstable behaviors will also be prepared and distributed. To increase awareness about safety and environment among employees, the education system will be also reinforced.

Advancement of Safety and Environmental among Corporations in China

Following the revision of the Work Safety Act and Environmental Protection, safety and environment regulations in China have become stricter. In response, LG Chem has advanced its China-based safety and environment management system. An organization dedicated to safety and environment management was established within the general management corporation overseeing Chinese regions (LGCCI) with the goal of managing local subsidiaries, while the Nanjing plant (LGCE NJ) has also formed an executive group and organization to take charge of safety and environmental management. LG Chem's safety and environmental goals, which are comprised of 26 unique regulations, and the safety and environment portal have been expanded to LG Chem's Chinese subsidiaries. From March to October 2015, the safety and environment inspection was conducted in 7 plants to assess aspects dealing with safety and environmental organization, operation management, and facility management. In 2016, the advance project inspection was conducted for facilities exhibiting high risks in order to strengthen the accident prevention system. A legal regulation management system also will be established in reflection of the standards of the Chinese government and local communities.

Establishment of Safety, Health and Environmental Culture

To firmly establish a culture that prioritizes safety, health and environment, management itself actively participates in various activities to enhance the awareness safety, health and environment management. Safety and environment is a major part of the CEO's on-site management, and executives as well pay keen attention to safety and environment improvement activities in individual production lines. Education programs and special lectures given by the CEO on safety and environment are also arranged to improve the professionalism and awareness on safety and health among executives and employees. In 2015, the CEO's special lectures were conducted a total of 4 times at workplaces in Korea and abroad

Safety and Environmental Management at Each Workplace

Management improvement through the Conference on Safety and Environmental Result

To share information on results of safety and environmental accident prevention activities taking place at domestic and foreign workplaces. LG Chem held a meeting to share results on company-wide safety and environmental data in November 2015. More than 140 employees participated including representatives from 10 domestic workplaces, 2

research parks, 12 overseas corporations, and suppliers. Superior themes of safety and environmental practice as well as exemplary cases of suppliers were presented, contributing to promoting the roles and responsibilities of safety and environmental platforms and improving the level of corporate awareness and response.

Strengthening Safety Practice Ability through 'Management by Wandering Around' – Daesan Plant

As demands for top tier safety increased and related government regulations became stricter, the Daesan Plant responded to this shift in values and growing safety concerns by announcing its 'management by wandering around' policy through which an organization leader takes responsibility of strengthening labor and management capabilities to prevent accident occurrence and reoccurrence within the workplace. Particularly, action plans for worksite visitation were created, and the work standards and procedures for each business site were reevaluated. Leading up to an inspection, related work contents are shared, and work approvals are issued after onsite inspection, while 'safety golden time' is implemented in order to identify and remove risks prior to work. Through these efforts, a safety-first culture has been successfully established and safety-related abilities have been strengthened as a result. Worksites have also seen a decrease in the total number of safety-related incidents compared to the previous year.

Improvement of Safety and Environmental Audit System -Yeosu Plant

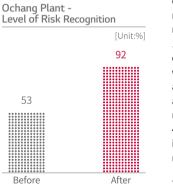
Yeosu Plant seeks to address fundamental problems onsite and achieve 'Zero' risk factor and indication of inspectors based on the participation of every member. To this end, the existing audit system, which focuses on disclosing incidents related to safety and environment, has been improved. All members related to safety and environment are divided into 14 areas, and the introduced audit system is applied to every department. Problem-addressing ability has been improved with the focused examination of each area. Inspection results are shared with heads of business sectors and operations to arouse interest from the management in safety and environment. In 2015, audits were conducted 40 times in total, and 4,647 onsite improvements were found. These achievements indicate that the general level of safety and environment management at Yeosu Plant has been improved.

Yeosu Plant Safety and Environmental Audits



Culture – Ochang Plant

The Ochang Plant conducts various autonomous safety-management activities in order to increase accident and safety awareness among employees. To prevent unsafe behavior, which account for about 90% of accident causes, existing knowledge-focused safety education has been improved by utilizing safety simulations:

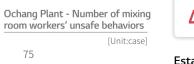


Before Training Training

53

75

2013



2015



Jun-ok, Lee Head of Safety and Health Team at Daesan Plant

As laws and regulations for safety and environment management are strengthening, LG Chem is actively implementing training and campaigns for upgrading its management system and internalizing safe environment. At DaesanPlant, leaders have taken the initiative of safetyfirst culture by improving executive ability of safe environment management to achieve 'zero accident' through 'management by walking around' since 2015. It has adhered to standard procedures, shared work details, issued work approvals after onsite inspection, and conducted 5-minute checkups before work initiation. Also, this practice has been expanded to annual maintenance work (Turn Around). It has been successfully implemented with no accident. LG Chem continues to work to strengthening its basis for safe management through creating a culture for practicing thorough-going safety and environment management.

Improvements found 4.647 in total

Establishment of a Foundation for Safety

Simulation facilities and training procedures reflect actual accident cases and improve risk awareness among employees. To strengthen monitoring, CCTVs are installed in spots of high fire risks. As a result, the awareness of risks among workers has been improved from 53% to 92%, and the number of unsafe behaviors recorded among workers at the mixing room has drastically decreased.

Establishment of a Safety and Environmental Management System with Excellent Executive Ability -Beijing Plant

Beijing Plant in China (LGCE BJ) has established its Safety and Environment Management System with the goal of proliferating knowledge on all departmental duties related to safety and environment and to facilitate member participation in safety and environment management activities. With the Safe Production Committee organized, the safety and environmental organization has been reorganized to strengthen business momentum within the work process. Regular meetings and monthly onsite safety inspections are conducted by safety managers appointed at each department. A process for annual internal inspection has been created to improve the professionalism of the internal audit as well as self-inspection capabilities. To improve accident awareness, uniform safety and environment education and evaluation has also been established. As a result, 'zero accident' certification was achieved in 2015, and the safety risk improvement rate* climbed to 91.3%.

*Safety risk improvement rate: Number of improvement cases / estimated number of safety risk cases *100

Improvement of Employee Health Management

Hearing Ability Protection & Noise Management-Daesan Plant

Daesan Plant is currently operating the Hearing Ability Protection Program to manage noise created by the production processes. One measure that highnoise facilities are taking is to record and assess noise by creating a noise map. In addition, education programs on harmfulness of noise and prevention practices and hearing tests for employees have been conducted. High-noise facilities and hearing tests results are utilized in manual. In the future, hearing tests will be upgraded and engineering elements of high-noise facilities will continue to be improved.

Industrial Sanitation Program -LG CMI

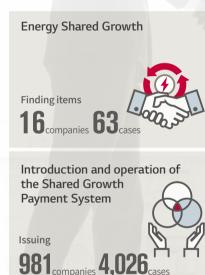
LG CMI operates an industrial sanitation program to provide workers with a pleasant working environment. The program aims to manage working environments proactively to monitor any hazardous factors. To this end, industrial sanitation managers are appointed to monitor environmental factors, identify worker exposure level, and assess the real-time risks present at worksites.

Steering Committee

5 STRENGTHENING RELATIONSHIP WITH SUPPLIERS

As the global economic crisis continues and market uncertainty remains, it is unable for a large company to grow all by itself. Rather, a large company with a wealth of technology and capital needs to cooperate with suppliers with specialty in a certain area, trying to achieve technology advancement and innovation together in order to improve competitiveness. In this regard, 'Shared Growth,' that is, establishing a healthy industrial eco-system and strengthening future capabilities through close cooperation with suppliers, is suggested as a business management paradigm essential for sustainable growth.

KEY PERFORMANCE



Technical Support



Goals · Strengthening support for secondary suppliers · Strengthening internal/external communication 2015 · Expanding support for Energy-Shared Growth and safe environment projects · Providing suppliers with employment incentives • Patent support for suppliers free of charge · CEO's visit to secondary suppliers Adopting and expanding shared growth Perfor

GOAL & PERFORMANCE

· Developing new Shared-Growth programs

- payment system ·Shared Growth Brochure released 2015 ·Sending quarterly Shared Growth Letters · Facilitating suppliers' participation in the Energy Shared Growth Project in connection with the performance sharing system
- · Conference on responding to chemical regulations ·Safety and health education for suppliers
- Goals · Facilitating participation in the Shared Growth Project · Fostering major Shared Growth activities · Promoting fair transaction among suppliers
- 2016 · Strengthening suppliers' CSR activities

- 5 Major Strategies for Shared Growth
 - •Adopting/operating four guidelines for fair transaction
 - ·Internal examination committee for subcontracting transactions
 - •Providing compliance education for employees
 - ·Adopting/using the standard subcontract
 - •Practicing Jeong-Do management and operating Jeong-Do management system
 - ·Compliance Program activities
 - Shared Growth Fund raised 44 billion KRW ·Direct and special funding
 - ·Adopting a shared growth payment system ·Improving subcontract payment terms (payment terms, due date)
 - ·Customer supply(contract material purchasing) support
 - ·Supporting suppliers for molding expenses
 - •Energy reduction audit/consulting/ infrastructure investment support ·Facility and occupational safety audits ·Conference on responding to chemical regulations
 - ·Material chemical analysis system
 - ·Green supply chain management guidelines ·Shared growth agreement on safety and health

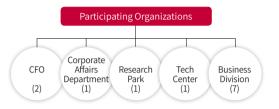
Shared Growth Strategies

LG Chem has established and is currently operating the sustainable Shared Growth System based on its 5 major strategies in recognition of suppliers as 'mutually growing companions for market-leading.' Various support channels have been provided to establish solid collaboration culture, strengthen suppliers' competitiveness, and fulfill social responsibilities. In addition, the Shared Growth Resolution Body and dedicated organizations are working to carry out shared growth activities and strengthen business competitiveness.

Operation of the Shared Growth

LG Chem has organized the Shared Growth Steering Committee, which is a company-wide supreme resolution body established in 2010, to create shared growth plans and asses their results. At present, 11 officials from each sector participate under the CFO as the chairman. Efforts are put forth into internalizing shared growth culture throughout all of LG Chem's workplaces by discussing major shared growth issues and analyzing activities.

Shared Growth Steering Committee Organization Chart





Creating a Fair Trade Atmosphere

4 Major Practices for Fair Transactions

In order to avoid unfair transactions and promote shared growth with suppliers, LG Chem sticks to the four major practices of the Fair Trade Commission: Agreement conclusion; Careful selection and operation of partners; Establishment and operation of the internal audit committee; and Issuing and preservation of documentations. Related aspects are reflected in the company regulations such as ethical norms, purchase regulations, and instructions for purchase contracts and shared with suppliers through the open purchase system. In addition, LG Chem has introduced the standard subcontracting agreement in reflection of the Fair Trade Commission's submitted recommendations. When there are revisions to the Subcontracting Act, they are reflected in the agreement form immediately to reinforce fair contract culture between a large company and a small/medium-sized company.

Financial Support and Payment Condition Improvement

Introduction of the Shared Growth Payment System

LG Chem introduced the Shared Growth Payment System to reduce the financial burden placed on secondary suppliers. This system aims to expand the credit sale bond benefit for primary suppliers to secondary suppliers. The Shared Growth Payment System is a safety payment method with no recourse. Bonds between primary and secondary suppliers can be utilized for payment of delivered goods. Since the interest rates for large companies are applied, financial expenses can be saved on the part of suppliers. In the near future, details on bank websites will be made clear to all suppliers, and primary suppliers' cooperation will be requested through LG Chem notices and presentations.

LG Shared Growth Fund

LG Chem has formed and is maintaining the Shared Growth Fund, which amounts to around 44 billion won, with the aim of addressing financial difficulty among suppliers through low-interest loans. The Shared Growth Fund provides partners with loan services within the limit of 0.5 billion for max. 3 years, and a min. 1% of interest reduction benefit is provided.

Safety & Environment / Energy Shared Growth

Energy Shared Growth with Suppliers

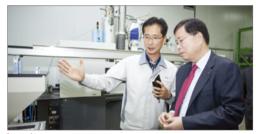
To establish an Energy Shared Growth model with customers and suppliers, LG Chem has concluded MOU with Korea Energy Agency and conducted various support activities. Every year, selected customers and suppliers are provided with education and benchmarking services to enhance their expertise. Support for administrative system establishment is also provided including the greenhouse gas inventory and management tools. In addition, the Energy Shared Growth Fund, currently amounting to 4 billion, has been formed to create financial support for such projects. In 2015, 16 customers and suppliers were selected. Newly developed 63 energy-saving technologies have impacted greenhouse gas reduction by

as much as 8,051 ton per year and energy-saving impact was recorded at 2.3 billion won. For the excellent reduction technologies that are selected by LG Chem, financial investment was provided either directly or indirectly, contributing to reducing greenhouse gas and creating profit.

Disclosure and Communication Activities

CEO's Visit to Suppliers' Workplaces

LG Chem has its management visit suppliers' production sites to encourage employees and listen to record difficulties in transaction processes. In 2015, the CEO visited secondary suppliers of the energy solution division, examining the status of the production sites and communicating with hands-on workers. In the future, the CEO's visit to production sites will continue to establish a solid collaboration culture and seek improvements in the collaboration process.



CEO's visit to secondary suppliers

Operation of Information-sharing System among Suppliers

LG Chem operates the Open Purchase System through which suppliers can easily transmit and store various documents necessary for partner transactions. This system enhances the work convenience and transparency of transaction procedures. In addition, suppliers' technologies and materials are utilized in cooperation with LG Chem for further development and commercialization of the Shared Growth and Collaboration Channel.

Activities to Strengthen Suppliers' Capabilities

Support for Employment

LG Chem has provided various channels of support for SME suppliers to improve their competitiveness by securing talented human resources. LG Chem participates in Job Fairs, together with suppliers, helping suppliers recruit talented individuals by utilizing LG Chem's brand name. For those who are employed through a job fair that LG Chem supported, employment incentives amounting to 3 million won per head are provided.

Employment Incentive System



Information on Technology Trends and **Overseas Markets**

LG Chem supports suppliers so that they can respond to product export regulations with the aim to improve SME suppliers' export competitiveness. In addition, it provides suppliers with opportunities to participate in overseas exhibitions of various technology trends and to conduct overseas marketing activities. In the Job Fairs, conducted by the Shared Growth Committee, current business interests, areas and base technologies of LG Chem were introduced to and shared with SMEs.

Education for Suppliers' Employees

LG Chem operates the 'Polymer Processing School' for the benefit of suppliers' employees, presenting technological know-how on design and development of plastic products. The curriculum covers comprehensive subjects from the basic knowledge of plastics to injection molding, contributing to improving the professionalism of suppliers' employees. LG Academy, an education institution designated by the Ministry of Labor, also provides various education courses such as language classes, and general aspects of business management. In 2015, 134 individuals from suppliers participated in such education programs.

Systematic Management of Suppliers

Operation of the Internal Audit Committee

LG Chem operates an Internal Subcontracting Audit Committee, consisting of purchasing managers from all of its divisions, purchase strategy team heads, and purchase team heads in order to ensure fairness and legitimacy in subcontracting. This committee manages preliminary auditing for subcontracting contracts, pricing, partner registration/cancellation procedures, and standard legitimacy.

Case Technical Support for Suppliers

Support for Domestic Production of Facilities | JS Tech

To help JS Tech address the problem of over reliance on processing facilities imported from Japan due to the limitations of existing optical film manufacturing methods, LG Chem dispatched processing/facility technology experts to share their technical expertise for the duration one year. As a result, a new concept of facility (suction roll) was successfully developed, which saved prime costs as much as 30% compared to when the facility was imported. Likewise, the re-export also resulted in a sales increase.

30% prime cost reduction compared to imported facilities



Kwang-ho, Lee Head of Basic Material & Chemica Procurement Strategy Team

In recognition of the fact that

mutual growth is an essential

strategy for market leading,

LG Chem has established a

sustainable mutual-growth

system. By operating the

purchase portal, LG Chem

has established the order

transaction. It also shares

prospects through regular

meetings with partners and

address difficulties through

VOC hearings sessions. Also,

given advantageous such as

payment in cash and, more

transaction opportunities

so that they can enhance

various win-win programs

competitiveness. In addition,

such as support for operation/

investment for energy-saving,

investment fund, education

for partner employees,

etc. are provided.

outstanding partners are

of fair and transparent

market and business

Strengthening Suppliers' CSR Management

LG Chem conducts regular evaluation of suppliers on selected evaluation items such as response to environmental regulations, shared growth, and compliance with labor and human rights laws in addition to technology and financial evaluations. Evaluation items regarding safety & environment, human rights, and labor continue to be strengthened in order to oversee various managerial aspects related to suppliers. Depending on the evaluation results, exemplary suppliers are given incentives such as advantages in payment conditions. Suppliers that failed the evaluation and failed to receive a score above the necessary standard are required to submit a plan for improvement. In addition, in the event of a serious violation of laws or regulations concerning the environment, safety, or labor, according to LG Chem's principle of Jeong-Do Management, uncompromising measures such as transaction/contract termination will be carried out.

To improve CSR and secure a sustainable value chain, 'LG Chem Partner Behavior Norms' has been created to be accessed by all of LG Chem's suppliers. For suppliers that have submitted an agreement of compliance, an examination is conducted through a written form or an onsite visit to check if the principle is substantially complied with. This is one way for LG Chem to gradually expand partner CSR activities.

Supplier Management in 2015

Supplier Registr- ation	Major suppliers' ratio among the primary suppliers	5%
Purchase Amount	Purchase amount of major suppliers in the total amount of purchase	66%
Supplier Assess- ment	No.of Companies subject to assessment through on-site visit	168

Patent application and re-export to Japan and China

Free Provision of Patents | SEIL Hi-Tech

Due to difficulty that SEIL Hi-Tech experienced in overall growth and in developing new products caused by stagnation in related industry sectors, LG Chem provided support to SEIL Hi-Tech in establishing a foundation for further growth by providing the application of LG Chem's rechargeable battery technology patent through the Chungbuk Innovation Center. By combining the independent technology of SEIL Hi-Tech with its patented technology, LG Chem developed swelling tape manufacturing technology applicable to rechargeable batteries. As a result, SEIL Hi-Tech could secure new suppliers and increase sales successfully.

Patented technology applicable to rechargeable batteries

Sales increase during the second half of 2015: about 0.5 billion won

6 HUMAN RESOURCES DEVELOPMENT

Fundamental corporate competitiveness is rooted in the excellence of talented human resources. Numerous companies spare no investment in improving employee capabilities and operates a top-tier recruiting system to secure talented employees with world-class capabilities. To boost employees' morale, efforts are put forth into improving working conditions. LG Chem respects individuality and diversity and encourages a work culture where employees can exert creativity and autonomy, which are the very sources of corporate value creation that LG writes in its principle of 'People Management'. In response to its own values, LG Chem has since created and operated an educational program to train core talent. In addition, the company seeks ways to motivate employees and improve their satisfaction by guaranteeing fair work conditions such as a balance between work and life, as well as fair evaluation and compensation according to work performance.

KEY PERFORMANCE

Establish Job Training System to foster experts



Total amount of investment into education



Hours of education per head



GOAL & PERFORMANCE

· Nurturing future entrepreneurs 2015 Goals • Strengthening business skills for future business

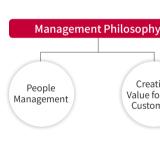
leaders (team managers)

- Strengthening professional training in function-specific tasks
- Improving on-the-job specialization for locally hired employees for overseas business operations
- · Continuously nurturing division leader candidates and next-generation global business leaders · Conducting diagnosis of individual employees' abilities
- Perfor · Checking points for nurturing individual employees through a new team manager's diagnosis of individual team members' abilities
- 2015 · Performing B2B-specific business marketing
- · Creating a strategic plan for nurturing expert in different division \cdot Supporting Korean language class for locally hired
- emplovees · Conducting work training program (EO&D) for new employees invited from abroad · Creating and distributing salespeople's product
- manual and production technology learning manual for locally hired employees for overseas business operations

Goals • Strengthening of the nurturing of division leader candidates and next-generation global business leaders · Fostering entrepreneur candidates operating overseas 9 · Creating and strengthening work academy 201 · Establishing job training system for on-site workers Strengthening vocational expertise for locally hired employees for overseas business operations • Strengthening advance nurturing of employees for overseas duties

LG Chem's HR Principles

Chem's labor code.



Highest Capability

LG Chem recruits the most talented people from around the world regardless of their race, nationality, or gender.

· Recruiting creative and original talent Department assignment based on the recruit's preference and aptitude Providing incentives to core talent in consideration of the market value and business influence

Principle of Talent Management

In recognition of LG's management principles - 'Creating Value for Our Customers' and 'People Management' - that can be realized when individuals' creativity and autonomy are respected, LG Chem guarantees fair opportunities and performance evaluation to all employees so that all employees can exert their abilities to their full potential. In addition, LG Chem has created and henceforth complied with the 'LG Chem Global Guidance on Human Rights and Labor' which is a document that ensures human rights protection, minority worker protection, cooperative labor-management relations, etc. In addition, the human rights and labor principles of UNGC, Universal Declaration for Human Rights, and UN Guiding Principles on Business and Human Rights; Ruggie Framework are also supported within LG

*Link to LG Chem Global Human Rights & Labor Policy : http://www. lgchem.com/kr/sustainability/sustainability-introduction/principle



Source of Value Management Creating Value for Our Customers Basic Thought r Chance · Long Term Pers Process

Best Ability, Best Results, and Best Benefits



LG Chem's Ideal Employee

Professionalism

Business Division

On-site Workers

Efforts to Procure Talented Personnel

Global Talent Procurement

The chief executives of LG Chem put forth every effort into procuring a talented workforce in order to continuously grow as a global material manufacturer. In 2015, representatives visited the global economic epicenters - China, the U.S. - and a major material manufacturer -Japan – and conducted two major global talent employment events, 'BC Tour & Tech Fair' and 'LG Techno Conference.' In addition, the head office internship program was conducted and saw the recruitment of a number of foreign students by local corporations in Korea, which contributed to overseas corporation localization and business capability improvement.

Advance Procurement of Talent

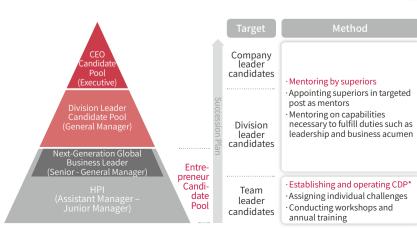
To proactively recruit and secure talented individuals, LG Chem promotes the 'Advanced Talent Procurement' program. This program consists of an R&D Scholarship, Industry-University Cooperative Program, Global Internship, and Industry-University Cooperative Internship, providing scholarship for talented individuals and employment opportunities.

Advance Procurement of Talent

Description	
Scholarship for domestic and foreign R&D masters and doctors; employment opportunities after graduation	
Customized education and scholarship for masters/doctors graduating from MOU universities;	
Advancing cultivation and verification of global talent; mentoring of team heads in addition to employment opportunities	
Long-term internship with credits during semesters (4 months); employment oppor- tunities after internships	

Enterpreneur Cultivation System

48



*CDP : Career Development Plan

Employment of Local Talented Personnel

LG Chem has organized 'Youth Employment Consultative Group' to address the problem of youth employment and to recruit local talented individuals by finding and arranging community-customized departments, employment-facilitating programs, and hosting a 200,000-job creation fare. In 2015, to find talented human resources in Chungbuk, location of the Ochang Plant, the 'Battery-Customized Track Agreement' was signed with Chungbuk National University. Efforts are put forth into training science major engineers specialized in the battery sector and providing support for their employment. LG Chem is contributing to addressing the problem of youth unemployment, local economic development, and social stabilization by expanding local talent employment projects and actively supporting vocational ability development training.

Strengthening Market-leading Capabilities

Support for Next-generation Leader Training

To train talent that displays capability in market leadership, LG Chem has been conducting training programs for the division leader candidate pool, next-generation global business leaders, and HPIs (High Potential Individuals). In 2015, the education system for next-generation leaders in China was established and its first year course was initiated shortly after. Individuals' leadership capabilities were examined and the results of evaluations were further examined. In the future, education programs according to the years of service will continue to be conducted in association with the domestic education system.

Improvement of Leadership Capabilities of Each Position

To improve position-based leadership capabilities, annual leadership education programs are conducted. Major contents include organizational management, organizational development, and strategies. In 2015, with 'Executive Leadership' as the main theme, leadership education was provided for team heads. More leadership education courses are in development with more diversified themes in attempt to continuously improve leadership capabilities of all employees.

Leadership Education System for Each Position





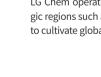
LG Chem has promoted 'Establishing Job Training System for On-site Workers', which is a program where hands-on technicians can improve their production skills and capabilities and field knowledge and knowhow can be handed down between employees. Outstanding individuals are given rewards according to their ability development results. This system is intended to present a growth vision for hands-on production technicians. In the future, the training system, with structured-OJT, will utilize NCS(National Competency Standards) promoted by the government with the aim of systematically developing field workers' key capabilities and ultimately contributing to the creation of business successes.

Strengthening Global Capabilities for Given Duties

LG Chem operates local expert programs in major strategic regions such as China, India, Brazil, and Russia in order to cultivate global talent and allow for the development of

Case Human Resource Development Activity in Overseas Workplaces

LGCCI Corporation operates a leadership course for HPIs so that they can internalize 'LG Way' and grow as a core resource of LG Chem. The leadership course includes KPI items and includes actual business operation case studies, reducing expenses and environmental effects, as well as year-end evaluation. Next-generation leaders are selected among team heads and managers to improve their leadership capabilities by examining their personal leadership style and aspects requiring further attention.



Interview



Hyeon-bae, Kim

Head of Competency

Development Team

LG Chem provides

differentiated HRD Solution

best vocational experts in

to the improvement of

to help members grow as the

various areas and contribute

corporate competitiveness.

Education programs are

and vocational duty. Leadership capabilities that

operated by each position

resident employees need

to cultivate as well as local

major aspects of education

employee candidates will

need to develop their global

capabilities. In addition, the

job training system for on-site

workers is in development to

help on-site workers to have

a vision on their growth as an

expert in their respective area.

that overseas resident

languages and cultures are all

Improvement of Employees' Vocational

Strengthening Vocational Capabilities at each

LG Chem manages curriculum for improving new employees' specialty and operates LG Chem Academy.

Curriculum for new employees is composed of 12 courses including 9 existing vocational education programs, and general/common courses. E-learning and mobile learning systems have also been established for flexible learning at one's discretion.

LG Chem Academy provides 157 specialized courses for various business divisions. Experts in various areas participate in leading education programs, sharing their expertise and experience. In 2015, 21 programs were provided for B2B business and sales marketing education. The Quality/Purchase Academy System operation project was also carried out in the same year. In 2016, 40 courses on guality management and 13 courses on purchase duties will be newly provided to further enhance vocational expertise.

Establishing Job Training System for

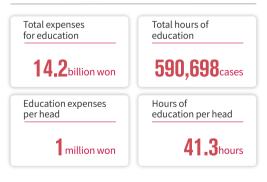
vocational capabilities for successful business expansion on a global scale. Such programs include local language learning and market research, through which individuals can develop core capabilities necessary for service in their respective region. 150 individuals from 12 countries completed the local expert program as of the year of 2015.

Additionally, new employees in regions other than China are invited to Korea to receive customized vocational education. For domestic employees to improve their foreign language skills and for foreign employees to improve their Korean skills, intensive foreign language/Korean courses are conducted to create better communication capabilities. In the future, the manuals of product education for local employees will continue to be developed, and various learning tools such as e-learning will be applied in order to improve overseas employees' vocational capabilities.

Strengthening the Expertise of R&D Workforce

LG Chem has established and operated an education system for the researcher committee members so that the committee can have the opportunity to become the top expert group and lead the market in various areas. In 2015, the 'Workshop for Research Committee Members' was held to improve the business insight and leadership of the research group. Qualified experts in various areas were invited as lecturers to present on new business areas and plans, actual cases of R&D commercialization, and give leadership lectures. Opportunities to discuss business strategies for each business division were also provided.

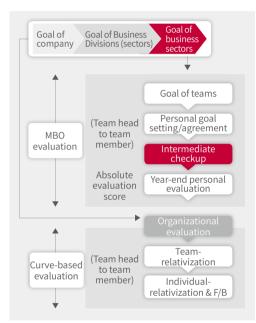
Investment into Education for Employees in 2015 (Korea)



Fair Performance Evaluation and Compensation

Advanced Performance Evaluation System

LG Chem evaluates work performance guality systematically to ensure fair evaluation. To this end, merit and demerit evaluation of achievements, personal ability/teamwork evaluations such as work difficulty and team contribution evaluation, analysis of internal/external environmental changes are all conducted as part of the evaluation process. In addition, personal work performance evaluation for each position and occupational group and LG Way-based attitude evaluation are also included as two other items of the high-level performance evaluation system. In 2015, this system was applied to all subjects as part of the work performance evaluation.



Labor-Management Relationship

Business-Oriented Labor-Management Partnership Based on management principles such 'Creating Value for Our Customers' and 'People Management,' LG Chem practices labor-management partnership through mutual coop-



eration and active participation. Using the company's unique labor-management cooperation model as a basis, organic participation and cooperation from members in corporate and worksite management as well as collective bargaining are sought after as key elements of labor relations. In addition, a business-oriented labor-management partnership has been established so that members' values are continuously improved and top-tier productivity can be secured.

Employee Benefits

Benefit System

LG Chem provides employees with various benefits that contribute to stable family life, health, and leisure activities. To create an environment where employees can concentrate on work duties, On-Line EAP(Employee Assistance Program) Service has recently been initiated and has contributed to addressing various issues at work and family life such as health problem, asset management, and stress reduction. Furthermore, LG Chem introduced the retirement pension system so that employees can collect a post-retirement income and enjoy a stable retirement. The retirement pension system is operated according to legal standards. DB and DC retirement pension systems are also in operation.

Benefit System

iupport rea	Item	Description
	Housing loan	Loan for employees of one year+ service; company house and dormitory
	Children's school expenses	Supporting tuition fees for children attending middle/high schools and universities
amily Support	Family events/ emergencies	Expenses and leaves for family events
	Childbirth/ maternity care	Company childcare center, maternity/childbirth/childcare leaves, temporary retirement

	Cale	leaves, temporary retirement
	Medical expenses	Medical expenses for employees, spouses, and children
lealth upport	Health examination	Regular health examination
	Health/ psychological consultation	Consultation with specialists such as health managers and psychologists
	Recreation center	3 recreation centers
	Company club	Supporting more than 150 clubs at different workplaces
eisure upport	Prize for long-term service	Souvenirs and trips in commemoration of long-term service
	Optional benefit package	Use of accumulated points for self-development and leisure activities

Corporate Culture Transformation

Corporate Culture Transformation for Market Leadership

LG Chem has selected 7 Major Goals for Organizational Culture Change including presenting original ideas, self-initiative working attitude, and inter-organizational collaboration for mutual growth. Strategies for corporate culture transformation include spreading and internalizing corporate culture transformation values, support for change in each corporate unit, communication between members, and pursuing diversity. In 2015, 'Chemi-Talk,' a communication channel among employees, was newly

Innovation in Wa

of Working

Compliance wit Basics and Princip

Spreading/Shari the Direction fo Corporate Cultur Transformatior

Reform Program at Each Domestic Foreign Organizat

> Strengthening Communicatio

established, and utilized to collect diverse opinions. Efforts are consistently put forth into communication with career employees and different vocational groups.

To also promote preferable working conditions for female employees, the Women's Lounge has been created and is currently being provided at LG worksites. The Women's Lounge was established to improve work environments so that female workers can autonomously exert their creativity and promote work-life balance. The female employee mentoring system and CEO meetings also provides female employees with a platform to develop their professional capabilities.

7 Tasks for Corporate Culture Transformation

7 tasks for Corporate Culture Transformation for Market leadership		
'ays	 Listen, Discuss & Implementation Work Smart Self-Initiative Collaborations 	
ith iples	 Safety & environment principles Jeong-Do Management Comply with work regulations 	
Acti	vities that Promote Market-Leading Corporate Culture	
ring or ure on	 Leaders' taking the initiative and sharing the direction for organizational transformation (leaders in the management) Analysis and improvement of organizational culture change 'Focus Board' (at all workplaces, twice a month) 	
ms cand ation	 Support for organizational transformation programs development Customized programs for local employees at overseas corporations 	
g on	 A communication channel for members (Chemi-Talk) newly opened to collect various opinions Women's Lounge and Female Professional Mentorship systems newly opened for talented female workers Communication with career employees and different vocational groups 	

7 PROMOTING STRATEGIC SOCIAL CONTRIBUTION

Recently, corporate activities related to social contributions are changing from existing charity endeavours to substantial value creation for local communities. Likewise, a lot of companies have established their own social contribution systems in reflection of their specialized corporate characteristics and strategies for effective social contribution activity. LG Chem has also established social contribution strategies that reflect its unique corporate values and the nature of the chemical industry. The focus for LG Chem remains on 'Youth Education' projects that provide education programs related to chemistry and the environment. In addition, LG Chem practices sharing of community and contributes to solving global climate change and resource depletion through 'Green and Energy-Related' businesses.

KEY PERFORMANCE





Number of social contribution beneficiaries in 2015



- · Education programs specialized for elementary/
- middle/high schools
- 2015 Goals · Strengthening social contributions in green and energy-related areas
- · Introduction of the social contribution
- evaluation system

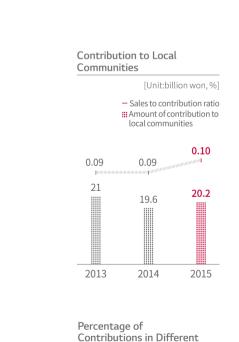
Programs specialized for elementary/middle/ high schools - Elementary school (chemistry park) - Middle school (chemistry camp) Perfor

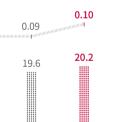
- Upcycling program (high school /employees)
- Green Partnership project
- Chemistry Camp and Upcycling program evaluation

2015

Goals · Promotion of employee volunteers' participation • Expansion of regions subject to green and

- energy-related areas
- 2016 · Expansion of programs subject to contribution
- evaluation





Social contribution program

environment

high schools)

Contributions

LG Chem Chemistry Camp

Upcycling Program

0.37% 36.5%

Etc.

Areas of the Local Community

61.98% Charitable Community Donation

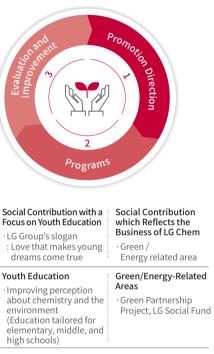
Investment

result is converted into financial values.

Social Contribution Promotion System

LG Chem conducts various social contribution activities, focusing on such areas as Youth Education, Green and Energy-Related sectors, in accordance with LG Chem's social contribution promotion direction 'Love That Makes Young Dreams Come True' and LG's unique business character.

LG Chem's Social Contribution



LG Group-Wide Evaluation Guidelines for Social

•To resolve social issues To utilize the strength of our business To consistently improve social contribution programs, 'LG Guidelines for Social Contribution Evaluation' have been introduced, and program improvement strategies are developed by focusing on strategies to address social issues by utilizing business advantages. Social contribution and effectiveness of major programs are measured by means of SROI (Social Return on Investment) methodology.

Voluntary Employee Social Contribution Culture

Education on Social Contribution

To spur interest in social contribution among employees, CSR education is conducted among corporate executives dispatched overseas, employee consultative bodies, and new employees. CSR education seeks to improve understanding of social contribution by presenting the LG Chem direction of social contribution, system, and major programs. For corporate executives overseas, attention is paid to identifying social contribution activities that correspond to LG Chem's values and help address social problems in the local community where the corporation is located. For new employees, opportunities of experiencing social contribution activities are provided.

Twin Angel Fund

The Twin Angel Fund is a fund for social contribution activity based on employees' voluntary participation. 100% of the Twin Angel Fund is matched by LG Chem to raise separate fund. Twin Angel Fund and matching funds are utilized to support social contribution activities at each workplace.

Case Analysis of Social Contribution Program Effectiveness

LG Chem measures social values of programs by utilizing the SROI*. LG Chem plans to raise the number of programs subject to effectiveness analysis to improve the performance of social contribution programs and to operate such programs more effectively.



* SROI(Social Return on Investment): Indicator of effectiveness of invested values as the enterprise's social activity

Area of Youth Education

LG Chem Fun Chemistry Park

LG Chem has operated 'LG Chem Fun Chemistry Park', a chemistry class for elementary schools, in neighborhoods surrounding its worksites since 2015. 'LG Chem Fun Chemistry Park' is an experience-based learning program in which various themes such as chemistry, the environment, and energy are presented in an accessible way for students. There are 4 experience halls: 'Energy Zone' and 'Life Zone' whose basic theme is chemistry in life; 'Education Zone' where global citizenship is cultivated and sharing is practiced; 'LG Chem Hall' where students can explore various chemical products and gain new knowledge. In 2015, more than 370 elementary school students in Yeosu and Ochang participated in various experiments and simulation classes. The program is expected to expand to elementary schools near the company's worksites nationwide.

LG Chem Chemistry Camp

'LG Chem Chemistry Camp' is LG Chem's major youth social contribution program initiated in 2005. Utilizing LG Chem's chemical expertise, this program aims to instruct students on various themes related to chemistry and the environment with creative experiments and interesting performances so that students can become familiar with new topics during the 3-day camping program for middle school students. In January 2016, this program was conducted for 4 rounds and provided students with opportunities to get to know green energy sources such as sunlight, wind power, and hydrogen energy, which have been recently spotlighted as future industry trends. This camp has been conducted a total of 47 times since 2005, and more than 6,000 students have participated. The program is provided in various locations for students' safety and approachability.

| 1. Upcycling Program 2. LG Chem Fun Chemistry Park 3. Green Partnership Project 4. LG Chem Chemistry Camp

Upcycling Program

In 2015, LG Chem began the 'Upcycling Program' for high school students and employees. As a part of the program, the 'Green Chemi-Environment Club' program provides upcycling education for selected high school environment clubs. Students visit youth welfare institutions such as local childcare centers nearby and make known the importance of upcycling as 'Peer Tutors.' More than 100 students from 10 environment clubs in Seoul and Gyeonggi participated in this education contribution program in 2015. In 2016, this program will be expanded to other domestic regions such as Yeosu.

In addition, LG Chem operates the 'Upcycling Experience Program' for employees, which contributes to increasing interest in environmental issues and spreading contribution culture. Employees' families and new employees participated in making upcycling products (eco-friendly hot packs made of car seat waste) and donating created materials to the underprivileged in need of energy.

Green and Energy-Related Area

Green Partnership Project

LG Chem concluded MOU with the Seoul Metropolitan Government and Community Chest of Korea to create the 'Green Partnership Project' in 2015. This project includes the 'Solar Energy Generation Project' and 'Green Remodeling Project'. The 'Solar Energy Generation Project' aims to install the 'Hopeful Green Power Plant' and use subsequently generated funds to support for financially disadvantaged youth. The project is a sustainable social contribution plan with an applied economic model. The 'Green Remodeling Project' aims to install rooftop tree-planting units and insulation materials for facilities in need of energy so that the city of Seoul can reduce its energy consumption and economic burden. In the future, LG Chem plans to expand this 'Green Partnership' to other areas.



Young-jin, Cho Head of General Affairs Team, Yeosu

LG Chem implements strategic social contribution activities that focus on youth, ecofriendliness, and energy. Our plant in Yeosu keeps 'Local Children's Center Genie Day' with a view to promoting the welfare of youths from local community, and implements an 'Upcycling Program' for high school students and children's centers in the city. Furthermore, with a view to addressing the local issues deriving from increasing elderly people of Yeosu, the company conducts 'Project for Funding Surgery on Senile Blepharoptosis.' Looking ahead. LG Chem continues to work on and puts into action solutions for sharing prosperity with local community through its CSR activities.

tions in Chungbuk since 2015.

LG Social Fund

'LG Social Fund' has supported 76 companies (12 in Chungbuk). Idea contests related to business items are also conducted to inspire college students. In addition, the Social Campus was opened in Korea University's Industry-University Cooperation Hall in order to address the spatial limit of social economic organization operation.

Social Contribution Activity at Workplace

Junior Science Class – Research Park Since 2004, LG Chem Research Park has operated 'Junior Science Class' as a way to donate LG Chem's talent to elementary school students. Researchers with professional degrees at Research Park visit adjacent elementary schools and participate in science classes to spark interest in and provide children with opportunities to learn more about life science. In 2015, an experience study was conducted for more than 200 elementary school students from 2 different schools. Students made 'nude headphones' by using magnets and coils during the session. More than 1,500 students in total have participated since 2004.

'Genie Day at Local Childcare Centers' program - Yeosu Plant Yeosu Plant has organized Genie Day every year since 2010 primarily through the support of volunteer clubs. It has





'LG Social Fund' is a program to support eco-friendly, social economic organizations and is operated in cooperation with LG Electronics on behalf of LG Group. 'LG Social Fund' has been operating since 2011, aiming to help organizations with high growth potentials, public contribution, and innovation in eco-friendly areas so that they can achieve financial growth and become an example to other companies within the corporate eco-system. As LG Group operates Chungbuk Creative Economy Innovation Center, efforts have been put forth into finding and supporting social economic organiza-

supported 67 local childcare centers so far. In 2015, automatic hand sterilizers were donated to 12 childcare centers with an aim to supply medical necessities and contribute to the wellbeing of children vulnerable to diseases.

Dong-go-dong-rak Program- Daesan Plant

The Daesan Plant has conducted the 'Dong-go-dongrak Program' for high school students since 2014, assisting students in planning their academic future and career. The project's mentorship provides students with an opportunity to explore career choices creatively; the college entrance briefing session helps bridge the information gap between cities and agricultural regions; and famous individuals are invited to participate in discourse with the students 4 times a year. In particular, the project's mentorship program matches students and LG Chem employees and contributes to developing students' creativity and knowledge of chemistry as they prepare a thesis on chemistry together.

Social Contribution of Overseas Corporations

Overseas subsidiaries of LG Chem in China, the U.S., Taiwan, Vietnam, and Poland have strengthened unity with local communities by supporting disadvantaged groups and local youth.

LG Chem has donated library facilities, books, and major equipment to schools through the 'Building a Library of Hope Overseas' program. This program has contributed to spreading book-reading culture among youth and providing disadvantaged local residents with cultural facilities. In 2014, Janddeonkeung Elementary School and Human Job Training School in Ho Chi Minh, Vietnam were also supported by this program. In 2015, library facilities were donated to a primary school in Chongqing, China.

1-Company 1- Army Campaign

Since it set up a sisterhood relationship with the 1st Infantry Division in 2011, LG Chem has provided comfort articles and presents of money every year. Especially at the end of 2015, the CEO visited the battalion of the 1st Infantry Division and Dora Observatory to encourage officers and soldiers who dedicate themselves to national defense despite difficulties, hand-delivering wintering articles such as daily suppliers, frostbite preventive cream, etc. in addition to presents of money.

- 2.1-Company 1-Army Campaign
- 3. Genie Day Program, Yeosu Plant

^{1.} LG Social Fund

Corporate Governance

Composition and Responsibilities of the Board of Directors

LG Chem's Board of Directors consists of seven directors, including two inside directors, one non-executive director, and four outside directors. To ensure independent and transparent operation of the BOD through checks and balances, the Audit Committee and Nomination Committee for Independent Directors sits below the BOD. The BOD has the authority to appoint and dismiss executive officers and hold responsible executive officers who exercise actions that directly affect shareholder profit. It plays the

Board of Directors Category Inside Directors

Je

Non-Executive Director

Outside Directors

c

the Board of Directors

Transparency in the Election of Directors

The Audit Committee and Nomination Committee consists of 1 inside director and 2 outside directors. This committee appoints outside directors in full consideration of independence and professionalism while voting. After experts from

Appointment Process of Independent Directors

01

Resolution by the Nomination Committee

- Vote on the nomination of independent directors - Propose to the Board of Directors

SUSTAINABLE GOVERNANCE

- **57** CORPORATE GOVERNANCE
- **60** ETHICAL MANAGEMENT
- 62 RISK GOVERNANCE

role of LG Chem's supreme decision-making body. The majority number of directors sitting on the BOD are the outside directors, who have a wealth of experience in various areas including chemistry, energy sourcing, IT/electronics as well as technology, law, finance, and accounting. These members are responsible for monitoring, managing, and advising in all important aspects related to business operation. In addition, they oversee and investigate corporate management, restricting the voting right of directors who have shown conflicts of interest in certain fields. As such, LG Chem maintains a transparent governance structure under the direction of its outside directors.

Name	me Career and Concurrent Posts		
Park, Jin-Soo	- Former CEO of Hyundai Petrochemical Co., Ltd.	Chairman of the Board of	
	- Former CEO of LG Petrochemical Co., Ltd. Directors		
	- Current Vice Chairman & CEO of LG Chem		
	*Concurrent post:FarmHannong		
Jeong, Ho-Young	- Former CFO of LG Display		
	- Former CFO of LG Household & Health		
	- Current CFO of LG Chem		
Koo, Bon-Joon	- Former CEO of LG International	Chairman of the Nomination	
	- Former CEO of LG Electronics	Committee for Outside Directors	
	- Current vice-president of LG New-Growth Business Promotiongroup	Directors	
	*Concurrent post: LG Electronics, LG Sports		
Nam, Ki-Myoung	- Former Minister of Ministry of Government Legislation	Chairman of the Audit Committee Chairman of the Nomination Committee for Outside Directors	
	 Current Chair-professor of Law, Chungnam National University 		
Kim, Se-Jin	- Former member of the National Competitiveness Reinforcement Subcommittee	Member of the Audit Committee	
	- Former Professor of Economics, Washington State University	Chairman of the Nominatio Committee for Outside Directors	
	- Current President of Korea Fund Ratings	Directors	
Ahn, Young-Ho	- Former Standing Commissioner, Korea Fair Trade Commission	Member of the Audit Committee	
	- Current Adviser at Kim & Chang		
Char, Kook-Heon	- Former American Physical Society-Fellow		
	- Current Gutenberg Research College-Fellow		
	 Current Professor at the College of Engineering, Seoul National University 		

Transparent and Independent Operation of

diverse sectors such as the economy, environmental planning, and HR, that can positively influence corporate management are carefully selected, candidates for the position of outside director who are independent and not in conflict with the interest of LG Chem are recommended to attendants of the general stakeholders meeting. Among the recommended candidates, outside directors are appointed through the approval and resolution of the general meeting.



Independence of the Audit Committee

The Audit Committee has the authority to audit current directors on the basis of their legitimacy. Auditors are all outside directors with strict independence. Quarterly audit committee meetings are held to establish, execute, and evaluate internal audit procedures. For critical aspects, each auditor suggests discussions when necessary. To control and monitor business management activities, aspects related to quarterly business results, internal accounting systems, and internal monitoring are reported to the audit committee. In addition, major economic, environmental, and social issues are reported to the audit committee in advance so that they can be discussed promptly.

Board Secretariat

LG Chem operates the Board Secretariat under supervision of the Credit Management/Compliance Team to help the Board of Directors fulfill its role and responsibilities, by managing board operations such holding regular meetings. In addition, prior to commencing a meeting, a briefing is held for outside directors to provide them with sufficient time to review agenda items that will be introduced in the meeting and to allow them to conduct a detailed yet comprehensive review of the items.

Stakeholder Communication

The Board Secretariat receives feedback from relevant teams before holding a board meeting to ensure that any last-minute items that need to be discussed will be added to the meeting agenda. In addition, the Board of Directors communicates with stakeholders through internal and external communication channels including public disclosures and IR events. The board makes top-level decisions at general shareholders' meetings and provides shareholders and stakeholders with business information promptly by disclosing important decisions. Business issues related to investors' interests are disclosed through the Data Analysis, Retrieval and Trans-

Case Independence of Outside directors

LG Chem defines the criteria for judging the independence of outside directors under the Commercial Code to ensure that the Board of Directors can fulfill its duty to 'check and balance' management. Outside directors currently represent 57% of the entire board in accordance with the criteria.

- 1. Director, executive officer, and employee engaging in the company's business operations or director, auditor, executive officer, and employee who has engaged in the company's business operations within the past two years
- 2. Majority shareholder or the spouse and direct-line ancestor/descent
- 3. Director, auditor, executive officer or employee of a company if the company is a majority shareholder
- 4. Spouse and direct-line ancestor/descent of a director, auditor or executive officer
- 5. Director, auditor, executive officer or employee of the company's parent company or subsidiary
- 6. Director, auditor, executive officer or employee of the company who has special interests such as a business relationship with the company
- 7. Director, auditor, executive officer or employee of another company where the company's director, executive officer or employee serves as a director or executive officer

fer System(DART) of the Financial Supervisory Service and the Korea Exchange(KRX) and LG Chem website.

Board Activity and Evaluation

Board Activities

Crucial discussion items are identified and chosen through the selection criteria of agenda items as outlined in the Board of Director Regulations. In addition to regular board meetings, special board meetings are frequently held to deal with urgent management issues. In 2015, the board held 10 meetings resulting in 32 approvals and 13 reports. Each year, the board visits key plants in Korea, including Yeosu, Daesan, and Naju, as well as subsidiaries in overseas countries such as China and Taiwan to conduct on-site oversight. To fulfill its commitment to social responsibility, LG Chem made amendments to the Board of Director Regulations in 2014 so that CSR goals, direction and implementation results are reported to the board.

Board of Directors Attendance [Unit:%]



2015 Board of Directors and Audit Committee Meetings



Session	Held date	Agenda
1	2015.01.26	- Reporting on the work of regulatory compliance supporter in 2015
		- Reporting on management performance in 2014
		- Reporting on the operation of internal accounting management in 2014 ar _5 other cases reported
2	2015.02.24	- Reporting on the evaluation of the operation of internal accounting managen
		- Approval for agenda submitted to the 14th general meeting of shareholde
		- Approval for convening the 14th general meeting of shareholders
3	2015.03.13	 Approval for amendment of the regulations on the management of exect directors
		- Approval for payment of special bonus for executives
		- Approval for paymentof directors' compensation and 6 other cases repor
4	2015.04.17	- Reporting on Q1 2015 financial statements
		- Reporting on company Q1 2015 performance
		- Approval for self-dealing involving major shareholders
5	2015.05.29	- Approval for maintaining advisor appointment contract
6	2015.06.24	- Approval for investment in facilities for 2nd phase of mobile battery, 3D ce
		- Approval for appointment of an executive director
7	2015.07.17	- Reporting on 1st half of 2015 financial statements
		- Reporting on 1st half of 2015 company performance
		 Approval for delisting stocks from overseas stock exchange and 1 other c reported
8	2015.10.16	- Reporting on the progress of Kazakhstan project
		- Reporting on Q3 2015 financial statements
		- Reporting on Q3 2015 company performance and 5 other cases reported
9	2015.11.06	- Reporting on the acquisition of DongbuHannong shares
10	2015.11.26	- Reporting on CSR implementation
		- Approval for contract with LG Co., Ltd. For using trademark
		 Approval for self-dealing involving major shareholders etc. in 2016 and 3 o cases reported
		100% attendance by outside directors

Board of Directors Evaluation and Compensation

Members on the Board of Directors receive compensation given within a limit that is decided through the resolution of the general shareholders meetings, to be granted justly according to wage regulations. The limit for a director's wage and the amount is calculated in reflection of her or his position's value and grade. The total sum of yearly wages is divided into months, and the same amount is paid every month. Performance-based pay for directors is paid within the limits of 0 to 150% of base salary after an overall evaluation is conducted in terms of quantitative indicators, such as sales and operating income, and non-quantitative indicators, such as an evaluation of the degree to which long-term expectations have been fulfilled. The Board of Directors is authorized by shareholders to make top-level decisions and determines compensation of top management.

Director Compensation Payments

The upper limit of wages to the board of directors that was decided by the general shareholders meeting in 2015 is 8 billion won, and the total amount of wages paid is

2015 Board of Directors and Audit Committee Meetings

4.124 billion won. This is a performance-based payment system based on the previous year's business performance and annual salary. Wages for individual directors and auditors that exceed 0.5 billion won are made public through a business report in accordance with related law.

2015 Compensation for Directors

	No. of people	Total payment (million KRW)	Average compensation per person (million KRW)
Registered director	6	3,944	657
Outside director	3	28	9
Member of the Audit Committee or auditor	3	152	51
Total	12	4,124	344

Ethical Management

Jeong-Do Management

Principle of Jeong-Do Management

'Jeong-Do Management' is not just a mere code of ethics, but rather mindset that LG aspires to in order to continuously cultivate our talents and capabilities, maintain a superior position through fair competition, and to achieve successful results. According to this corporate philosophy, LG Chem pledges to all our employees and partners that we will practice and promote further implementation of Jeong-Do Management.

Jeong-Do Management



LG Code of Ethics

LG Chem has stipulated LG Code of Ethics for behavior and value judgment according to Jeong-Do Management, demanding that all employees and worksites, in Korea and abroad, display ethical and fair business practices accordingly. LG Code of Ethics outline the basic direction of Ethical Management, which is a key element of Jeong-Do Management. Ethical Management is a standard for upright behavior and value judgment for all stakeholders related to LG Chem as well as its employees. Details on Code of Ethics and the practice are available for all stakeholders through the menu item 'Jeong-Do Management' found at the LG Chem Homepage.

*LG Jeong-Do Management Homepage(http://ethics.lg.co.kr)

Education and Promotion for Jeong-Do Management Internalization

LG Chem conducts education programs on Jeong-Do Management for all our employees and partners every four years as per the Jeong-Do Management education system. In 2015, education was provided for company leaders in the production sector as well as suppliers, including new and experienced employees, senior officers, overseas dispatched employees and those who return to the office or are in the course of a promotion. The work-site Jeong-Do Management operation education program is provided and held by each team head for the team members. In 2016, additional Jeong-Do Management instructors will be trained for effective practical education. Moreover, LG Chem is conducting various activities in effort to internalize Jeong-Do Management for all employees through channels like the Jeong-Do Management newsletter, Jeong-Do Management campaigns, and events, in order to improve the understanding and awareness of Jeong-Do Management. Newsletters are also sent to partners to spread awareness and promote Jeong-Do Management.

No. of employees received education program



Jeong-Do Management Violation Report System

LG Chem has established a reporting system through which internal employees and external stakeholders can report violations through LG Jeong-Do Management Homepage in order to prevent injustice, corruption, bribery, and unfair transactions while ensuring that countermeasures are promptly implemented. Reports may be submitted either anonymously or with the disclosure of the reporter's identity. For those who report with the disclosure of their identity, the identity of the reporter and the report's content are managed confidentially. The grievance system for suppliers is also operated to manage partners' complaints.

Implementation programs and Whistleblowing System

Jeong-Do Management Survey	Jeong-Do Management surveys are regularly conducted among suppliers and related employees, and the results are used to prevent unfair practices from recurring and establish directions for improvement
Gift Exchange Reporting System	If gift exchange occurs, it is reported under the gift exchange reporting system and then returned; if the gift cannot be returned, it will be donated to social service centers through an in-house auction
Whistle- blowing System	Ethics hotline: System for reporting practices that violate Jeong-Do Management Win-Win Growth system: Grievance system for suppliers
Rewarding System	Designed to strengthen transparency and root out corruption in business operations

Report Investigation & Measures

1 5				
	Unit	2013	2014	2015
Investigation by Ethics Office	Inci- dents	68	68	56
Disciplinary actions taken against persons involved	Persons	10	15	21
Number of laid-off employees due to corruption and irregularities	Persons	4	9	5
Number of companies whose businesses with LG Chem have been terminated	Compa- nies	5	8	12

1) Severe disciplinary action or more severe

Transaction Fairness

To create an environment that values fair trade, the reporting and approval procedures available to customers in contact with current and former employees of LG Chem have been reevaluated and improved. As information on transactions with customers is opened to related divisions to assess the transparency of transactions, efforts are put forth into preventing the risk of dishonest transactions and unfair advantages.

Compliance Management

LG Chem's Board of Directors appoints a compliance officer who controls matters of compliance. The compliance officer inspects the compliance status of the company and its employees and establishes goals and policies related to compliance activities. To provide support for the compliance officer's activities, the company operates the Credit Management/Compliance Team, which works to identify standards, practices or operations of the company that may cause violations of laws or regulations in collaboration with related parties. In 2015, Subcontracting-related law/regulation violation risks have been investigated in effort to reevaluate and institute improvement. Compliance education continues to be conducted to spread law-abiding consciousness amongst employees. In 2016, the Compliance Risk Pool will be prepared to ensure consistent management, and online compliance education will be conducted for all employees.

Corporate Subcontracting Management System

LG Chem has formed the corporate subcontracting TF in cooperation with related divisions to actively handle risks such as disguised subcontract, and illegal dispatching while simultaneously conducting onsite inspections of subcontracting management conditions at major workplaces in March to May. Interviews with onsite managers were also conducted to grasp onsite risk factors and all results were reported to LG Chem's managerial body for improvement. In 2016, the corporate subcontracting guideline will be newly issued in reflection of onsite demands and needs. In addition, legal advisors will be placed at each sector division to support legitimate subcontracting operations.

Overseas Employee Compliance Education

LG Chem puts forth efforts into strengthening compliance education for overseas employees and improving employee compliance consciousness as per the requirements of ethical business management. In 2015, lecture videos on 4 themes of compliance were produced and made available for online lecturing through which 934 local employees utilized in China while completing our compliance education program. In addition, the basic materials business office conducts their own lectures on major issues of overseas compliance for overseas dispatched employees. In 2016, animation videos on compliance issues are scheduled to be produced, while an online compliance education system is set to be established. The education programs will be conducted annually. An effective compliance education system will be established in reflection of the lecture content, assessment results and provided opinions.

Compliance Management System

Fair Trade Compliance

Fair Trade Compliance Program

LG Chem introduced the Fair Trade Compliance Program in 1995 and published the 'Fair Trade Guideline' in 2006. as the first among domestic Korean companies, practicing the principles of fair trade diligently. In order to assure the quality of operation, the Compliance Team is run under the oversight of the Fair Trade Compliance manager, who is responsible for establishing, executing, and reporting the program operation. Furthermore, the Internal Deliberation Committee on Subcontract Transactions conducts examination procedures on all subcontracting transactions that are valued above 3 billion won in order to secure the legitimacy and fairness in subcontracting with the small and medium enterprise partners.

Fair Trade Education and Inspection

LG Chem conducts the annual inspection and preventive education programs within all its departments on subjects such as cartel, internal transaction, and subcontracting, to raise awareness amongst employees on the issues related to fair trade. In 2015, prevention education regarding cartel and quarterly monitoring regarding internal transaction were conducted, especially centering on the 110 employees that work for the subcontracting-related departments.

Compliance Program Organization



Spread of Fair Trade Culture

LG Chem provides manuals on fair trade compliance through the corporate intranet in effort to disseminate fair trade culture amongst our employees. The manuals are always open to revision so that they may reflect recently amended laws and practical issues that present themselves at a given time. In addition, all employees are expected to act in absolute dignity, to avoid the unfair trade practices and cartel behavior, in compliance with the fair competition practice guidelines. LG Chem also seeks to improve law-abiding consciousness through the Fair Trade pledge in accordance with the Fair-Trade Act and Subcontracting Act.

Risk Governance

Enterprise Risk Management System

In order to construct a foundation that nourishes the company's continued growth, it is of great importance to manage non-financial risks concerning the local community and our supply chain as well as traditionally outlined financial risks. LG Chem efficiently manages risks with its 3-step management system: daily management by hands-on workers, integrated management for the risk management department, and supervision of the board of directors. The daily management includes risk identification through business activity monitoring, cause and correction analysis. The integrated management step includes risk inspection and response according to each division's characteristics by the RMC(Risk Management Committee). completed by the company-wide integrated risk management system. We provide guidelines to every division so that each division's risk management team can predict and respond to each risk scenario.

Prevention of Risk Reoccurrence

To prevent risks from reoccurring, prompt inspection and systematic follow-up are necessary. LG Chem examines risks through an Internal Audit and takes countermeasures to prevent risks from reoccurring. Moreover, all major projects are evaluated based on sales, profit/ loss data, and investments in comparison with investment plans for the last 3 years. For projects whose results were different from predicted outcomes, major factors are examined through follow-up inspection to improve the success rate of future investments.

Internal Control System

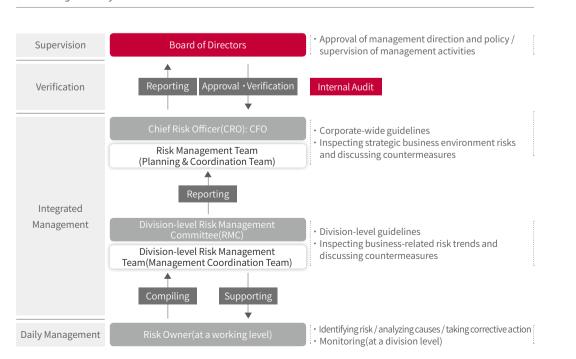
The Internal Control System is a series of continuous activities led by the Board of Directors, management, and other members to provide reasonable confidence in its operation, financial reporting, and legal compliance. The system's goals are aimed at reinforcing management's responsibility to secure the confidence of investors in the company and its financial statements. LG Chem operates the Internal Control System based on the IACS(Internal Accounting Control System) Framework to secure the reliability of financial data, effectiveness and efficiency in business operations, and ensure compliance of applicable laws and policies.

Risks of Priority Control

LG Chem identifies risks from various perspectives by analyzing long-term corporate strategies and function-based business processes, evaluates the likelihood and impact of risks, establishes and also implements appropriate measures to minimize negative effects of risks.

Class	Risk Factors	Potential Impact	Mitigating Actions
	Expansion of new businesses; fierce competition	- Fierce competition in emerging markets and rapid growth of competitors may affect the business competitiveness of LG Chem negatively	 To transform into a global company that is known for cutting-edge materials, it is necessary to expand technology-based divisions, strengthen global competitiveness of existing businesses, and invest more into R&D To become a market leader, it is necessary to strengthen the competitiveness in the area of new businesses such as batteries, water treatment, bio businesses
÷	Sales and production	 Mid/long-term growth rate decrease due to inappropriate business portfolios; inefficient resource operation due to improper response to demand/supply changes 	 For mid/long-term strategies (first-half) and business plans (second-half), the focus is on analyzing changes in business environments and coming up with measures accordingly Responses to each scenario based on major indicators such as oil price and exchange rates Analysis of short-term business environments and risks with the head office and oversea affiliated companies based on monthly profit/loss estimates and actual result settlemen reports.
Business Risk	Product responsibility strengthened	 In the case of an issue regarding product responsibility, it may affect LG Chem's business operations negatively. Improvement of customers' trust by strengthening product responsibility is an important element in business operation of LG Chem, a B2B company. 	 RoHS in material elements and product MSDS are provided in 33 languages through the IT system in order to improve trust in product safety Business divisions and quality management systems are operated in order to optimize the quality of management
	IT system management and information security	- LG Chem's individual divisions are operated and managed by an IT system. Leakage of confidential information and data manipulation may cause negative effect on the man- ufacturing and distribution processes. In addition, unau- thorized access to sensitive information and negligence in management can be a direct cause of legal action against LG Chem or erode LG Chem's competitiveness.	 Operation of an information protection association that oversees company-wide information protection through various information security policies as well as system integration for better execution. DB encryption/DB access control system establishment and operation for retaining customer information On/off-line education for employees on information security and data management
Financial Risk	Investment	- When investment decision-making or a change in business environment results in a failure to achieve profit gain, it is likely to cause financial loss and deterioration of cash flow	 An investment committee is operated for each business sector. When necessary, investment and support from the corporation is considered to minimize risks A self-examination is conducted bi-annually on the progress while the expense of an investment, KRI(Key Risk Indicator) and investment result predictions are all reflected in decision-making A company-wide contract examination committee is operated to manage general risks of any major large-size projects currently in progress, including any legal issues that may present themselves
RISK	Finance	- Operating various activities, LG Chem is exposed to various financial risks such as market risk, credit risk, and liquidity risk	 Risk management at each dedicated division according to policies approved by the management committee Advance identification and assessment of financial risks through cooperation among related divisions
	Environmental safety management	- Negative effects of direct financial loss and damage to corporate image caused by business suspension or penalties due to violation of related laws	 Safety management plans are discussed and practiced by the Safety and Environment Committee conducted by the CEO. Regular and special inspections of workplace Safety and Environment in domestic and foreign worksites Company-wide safety and environmental policies and regulations, and the safety and environment portal are utilized to manage risks and record achievements.
Social/Envi- ronmental Risk	Response to carbon policy changes	- Increase of production costs caused by operational expenses due to investment in energy conservation and purchase of emission trading right	 The Energy Committee conducted by the CEO is utilized to discuss current issues related to energy and greenhouse gases as well as to strengthen response capabilities Decision-making of investment into energy reduction according to the priority for effectiveness maximization Minimization of financial effects through advance prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and prediction of expenses for emissions trading the priority for energy and p
	Water resource management	- As the global water management system is expanding, home and abroad, mainly by advanced countries, interests in this issue are increasing accordingly, and so are the demands for businesses' active response to ISO14046: Water Foot Print, CDP Water, etc.	 With water resource risks regarded as a business opportunity factor, water treatment operations are experiencing a full-scale expansion Pilot project involving water resource inventories in domestic and Chinese worksites

Risk Management System



Economic Performances

Financial Highlights

Consolidated sales in 2015 amounted to 20,206.6 billion won, a bit less than sales in the previous year due to low oil prices. Owing to improved petrochemical proliferation and sales capacity, as well as prime cost reduction, however, the operating Income amounted to 1,823.6 billion won, a 39.1% increase compared to the previous year. The net profit of this term amounted to 1,148.5 billion won, a 34.5% increase.

Consolidated Income Statement			[Unit:million won]
Item	2013	2014	2015
Sales	23,143,612	22,577,830	20,206,583
Operating Income	1,743,044	1,310,761	1,823,568
Net Income	1,270,613	854,025	1,148,531
Owners of the parent	1,265,968	867,924	1,152,987

Statement of Profits and Losses

Item
Sales
Operating Income
Net Income

Consolidated Financial Statement

Item

Current assets Non-current assets

Total asset

Current liability

Non-current liability

Total liability

Owners of the parent Non-controlling inte

Total equity

Financial statement

Item Current assets

Non-current assets

Total asset

Current liability

Non-current liability

Total liability

Total Equity

OUR **PERFORMANCES**

- **65** ECONOMIC PERFORMANCES
- **68** SOCIAL PERFORMANCES
- 71 ENVIRONMENTAL PERFORMANCES

 2013	2014	2015
20,255,935	19,675,975	17,334,109
1,579,269	1,133,125	1,620,092
1,174,392	823,496	1,203,855

	2013	2014	2015
	8,031,617	8,146,821	8,655,605
	9,414,847	9,980,825	9,923,123
	17,446,464	18,127,646	18,578,728
	4,597,877	4,809,049	4,798,981
/	1,122,925	1,052,745	676,225
	5,720,802	5,861,794	5,475,206
nt	11,596,946	12,139,945	12,991,465
erests	128,716	125,907	112,057
	11,725,662	12,265,852	13,103,522

[Unit:million won]

	2013	2014	2015
	6,689,921	6,756,841	7,114,410
	8,697,255	9,136,605	9,117,186
	15,387,176	15,893,446	16,231,596
	3,286,775	3,738,040	3,412,605
y	1,022,500	603,829	374,428
	4,309,275	4,341,869	3,787,033
	11,077,901	11,551,577	12,444,563

[Unit:million won]

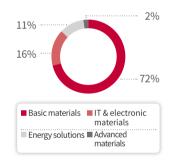
[Unit:million won]

Business Results by Business Area

Financial Ratio				[Unit:%]
Item		2013	2014	2015
	Growth Indicators	174.7	169.4	180.4
Stability Indicators	Debt-to-equity ratio	48.8	47.8	41.8
	Dependency on bor- rowing	25.7	23.9	20.3
Profitability Indicators	Operating income margin	7.5	5.8	9.0
	Net income margin	5.5	3.8	5.7
Indicators	ROA	7.5	4.8	6.3
	ROE	11.4	7.3	9.1
	Sales growth	(0.5)	(2.4)	(10.5)
Growth	Sales growth	(8.8)	(24.8)	39.1
Indicators	Net income growth	(15.6)	(32.8)	34.5
	Total assets growth	5.2	3.9	2.5

2015 Sales by Business Area

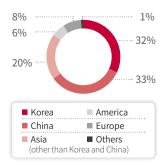
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Business Area		2013	2014	2015
Basic Materials	Sales	17,545,205	17,080,354	14,463,487
Basic Materials	Operating income	1,332,021	1,117,308	1,676,940
IT & Electronic	Sales	2,526,722	2,356,009	2,288,246
Materials	Operating income	325,207	92,809	117,349
Advanced Materials	Sales	498,053	305,713	307,744
Auvanceu Materiais	Operating income	53,731	39,613	28,999
Energy Solutions	Sales	2,573,632	2,835,754	3,147,106
Energy Solutions	Operating income	32,297	64,858	520
Others	Sales	_	-	-
Others	Operating income	(212)	(3,827)	(240)
Total	Sales	23,143,612	22,577,830	20,206,583
ισιαι	Operating income	1,743,044	1,310,761	1,823,568

[Unit:million won]

2015 Sales by Region



Regional Sales		[Unit:million won]
Region	2014	2015
Korea*	7,895,399	6,510,954
China	6,851,706	6,693,042
Asia (Korea, China excluded)	4,805,364	4,022,590
America	1,209,538	1,161,018
Europe	1,402,163	1,539,219
Etc.	413,660	279,760
Total	22,577,830	20,206,583

*Domestic sales include export totals according to local LG conditions

The values in the years of 2013 and 2014 are applied retrospectively according to the changes in national calculation standards

Distribution of Economic Value

LG Chem justly distributes revenue from business activities among direct and indirect stakeholders. In addition, taxation records are made transparent and public through business reports, as we strive to fulfill tax duties and payments faithfully. In 2015, the financial values distributed among LG Chem stakeholders including employees, the government, partners, shareholders, investors, and local communities amounted to 11 trillion and 314.3 billion won.

Stakeholder	Item	Unit	2013	2014	2015
Employeee	Total annual wages ¹⁾	million won	904,319	999,884	1,215,543
Employees	Average wage per head	million won	72	73	85
Government	Income tax expense	billion won	330.7	305.8	401.1
Partner	Purchase of raw materials	million won	14,072,848	13,400,114	9,337,722
Shareholder & Investor	Total dividends	million won	294,520	294,520	331,287
Local Community	Expenses for social contribution ²⁾	million won	20,953	19,559	20,149

Purchasing from Suppliers

In 2015, the amount of major raw materials that LG Chem purchased from partners is 9 trillion and 300 billion won. Naphtha, EDC, and others account for about 80% of purchases. As for overseas production corporations, purchases from local suppliers contribute to creating indirect financial impacts on the local communities

2015 Raw Material Purchase

Business Sector	Purchase(Unit:million won)	Item	Use	Seller
Basic Materials	7,415,347	Naphtha, EDC, etc.	PE/PVC materials	GS Caltex, Oxy Chem, etc
IT & Electronic Materials	833,582	TAC films, etc.	Polarizer materials	Hitachi, Mitsubishi, etc.
Advanced Materials	270,551	Surfactants, etc.	LCD materials	Fuji, etc
Energy Solutions	818,242	Anode and cathode materials and separators	Battery materials	SANYO, BASF Korea, etc.

Economic Achievement for Each Stakeholder

1) Total wages: excluding employee benefits and retiring allowance reserve; excluding registered officers; applying the Korean standard 2) Expenses for social contribution: the domestic standard

Social Performances

Current Condition of Employment

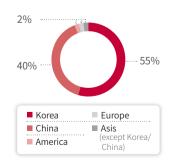
LG Chem has recruited many talented employees through our just employment procedures, pursuing diversity among employees and applicants. As of the end of December 2015, the total number of LG Chem employees is 26,195, and among these, employees in domestic workplaces account for 55% and those in foreign workplaces 45%. To enhance diversity among employees, LG Chem continues employing female and disadvantaged persons. Female office-work managers in 2015 accounted for 4.73% of the workforce while the number of socially vulnerable workers (the disabled and veterans) stands at 428.

Employees by	y Age						[Unit:person]
		20)13	20)14	20	15
Category		Male	Female	Male	Female	Male	Female
Total		15,936	5,053	18,629	5,855	19,601	5,708
	50 or over	1,430	2	1,659	3	1,833	2
	40 to 49	3,001	45	3,038	63	3,125	80
Korea	30 to 39	2,872	684	4,376	617	4,831	719
	Under 30	4,022	540	3,116	751	2,990	700
	Total	11,325	1,271	12,189	1,434	12,779	1,501
	50 or over	204	69	232	66	250	52
	40 to 49	331	108	422	124	474	127
Overseas	30 to 39	1,075	831	1,560	1,061	1,853	1,216
	Under 30	3,001	2,774	4,226	3,170	4,245	2,812
	Total	4,611	3,782	6,440	4,421	6,822	4,207

Employee Status by Region¹⁾

LG Chem is taking steps to localize workforces at overseas subsidiaries through the recruitment and development of local top talent. The total number of local managers² in 2015 is 459, accounting for 72% of total managers.

2015 Ratio of Employees by Region



Employees by Region			[Unit:person]
Category	2013	2014	2015
Korea	12,596	13,623	14,280
China	8,203	9,955	10,448
Europe	534	552	495
Asia (China excluded)	406	424	445
America	225	374	527
Total	21,964	24,928	26,195
		C	1949

1) Data Includes number of employees in overseas marketing subsidiaries, manufacturing facilities, offices and R&D center 2) Data is limited to China(LGCCI) and overseas manufacturing facilities

Job Creation & Retirement

In 2015, LG Chem newly employed 1,110 individuals in Korea and 4,230 in foreign countries, 5,340 in total. 71% of them are male and 29% female. The 2015 retirement rate at domestic workplaces is 2.74%, 0.17% decrease compared to the previous year.

Classification Unit		Unit	2013		2014		2015	
			Male	Female	Male	Female	Male	Female
Job	Korea	Individual	975	238	1,185	216	973	137
Creation Overse	Overseas	Individual	2,277	2,227	3,913	2,868	2,835	1,395
Retire-	No.	Individual	312	42	336	60	328	63
ment ¹⁾	Rate	%	2.75	3.30	2.76	4.18	2.57	4.20

Participants of Maternity/Child-care Leave

LG Chem operates a maternity/child-care leave system to contribute to solutions to the Korean low-birth rate problem and to enhance satisfaction among employees who work both inside the office and in their homes.

Maternity/Child-care Leave1)

Classification

No. of maternity leave b No. of child-care leave b

Ratio of those returning Ratio of employees work

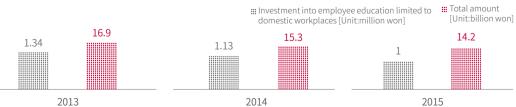
months or more after a n

1) Domestic workplaces only

Labor Union

Classification	า	Unit	2013	2014	2015
Koroo	No. of Members	Individual	5,593	5,863	6,065
Korea	Admission Rate	%	74	74	77
Overees	No. of Members	Individual	5,379	6,234	9,114
Overseas	Admission Rate	%	94	95	96

Education for Employees



1) The no. and rate of retired employees are limited to domestic workplaces

	Unit	2014	2015
beneficiaries	Individual –	91	90
beneficiaries		72	75
g to work		94	90.7
king for 12 maternity leave	%	92	89.6

LG Chem guarantees the three basic rights of organization. It notifies the labor union of major changes in business management.

LG Chem seeks to improve employees' professionalism and abilities as global leaders through various education programs such as leadership development, vocational capability development, and hands-on production work. In the year 2015, the total time of education amounted to 590,698 hours, corresponding to 41.3 hours per person.

1) Investment into employee education limited to domestic workplaces

Safety, Health & Environment Management Certification

Classification	Region	Worksite		
		Yeosu Plant	Naju Plant	Ochang 1 Plant
		Paju Plant	Gimcheon Plant	Daesan Plant
	Korea	Paju Plant	Iksan Plant	Cheongju Plant
ISO 14001		Technical Research Center(Daejeon)		
14001		Bohai(China)	Beijing(China)	Yongxing(China)
	Overseas	Dagu(China)	Botian(China)	Najing(China)
		Tianjin(China)	Taiwan	Vietnam
		India	Poland	
	Korea	Yeosu Plant	Ochang 1 Plant	Paju Plant
		Gimcheon Plant	Daesan Plant	Cheongju Plant
OHSAS 18001		Technical Research Center(Daejeon)		
		Bohai(China)	Botian(China)	Dagu(China)
	Overseas	Nanjing(China)	Yongxing(China)	Taiwan
		Poland		
	Korea	Naju Plant	Ochang 1 Plant	Daesan Plant
KOSHA 18001	noled	Iksan Plant		
PSM	Korea	Daesan Plant(Grade P)		

Accident & Severity rate

LG Chem puts forth efforts into promoting safety culture in domestic and foreign worksites with its systematic diagnosis and assessment methods such as regular examination, planned examination, and special examination to prevent accidents. Particularly, compliance with principles is emphasized among employees through safety environment education programs with the goal of achieving 'Zero Accidents'

Accident rate		[Unit:%, hours]		
Category		2013	2014	2015
	Accident rate ¹⁾	0.33	0.22	0.19
Korea	Severity rate ²⁾	0.05	0.05	0.03
0	Accident rate	0.39	0.48	0.19
Overseas	Severity rate	0.06	0.07	0.06
Korea	Safety & health	327,678	350,076	301,291
Overseas	education	9,404	26,281	152,550

1) Accident rate: (No. of lost-time injuries) / (Total no. of full-time workers) x 100

2) Severity rate: (Lost labor days) / (Total labor hours worked by full-time workers) x 1000

Environmental Investment

LG Chem is continuously stepping up its investments into the environment. In 2015, the total amount of home and abroad investment into the environment amounted to 36.8 billion won. The domestic investment into the environment in the year 2015 decreased as much as 40% compared to the previous year due to the reduced investment into Daesan and Iksan plants, but in overseas worksites, general investment rapidly increased as the investment into corporations in China (Guangzhou and Tienjin) and Vietnam significantly rose.

Environmental Expenditure		[Unit:thousand won]	
Category	2013	2014	2015
Korea	52,372,599	41,326,113	25,821,718
Overseas	8,224,079	2,304,847	10,998,055

Environmental Performances

Water Management

Water Use

Water Use					
Category		Unit	2013	2014	2015
1	Amount	m ³	53,111,259	55,581,210	55,388,961
Korea 1)	Intensity	m ³ / product ton	3.80	3.78	3.70
Overseas	Amount	m ³	6,786,360	6,955,158	7,272,417
	Intensity	m ³ / product ton	3.32	3.40	3.42

Wastewater Management

Wastewater Discharge

Classi

Classification		Unit	2013	2014	2015
	Amount	m ³	12,866,046	12,830,118	13,383,269
	Intensity	m ³ / product ton	0.92	0.87	0.89
Korea	Amount of Recycling		889,568	811,724	923,446
	Ratio of Recycling	%	6.47	5.95	6.45
	Amount	m ³	3,556,683	3,731,330	3,898,912
	Intensity	m ³ / product ton	1.74	1.82	1.83
Overseas	Amount of Recycling	m ³	1,468,950	1,557,442	1,683,179
	Ratio of Recycling	%	29.2	29.4	30.0

Discharge of Water Pollutants

Classification

Karaa	COD
Korea	T-N
Overseas	COD

LG Chem has responded to water resource risks by systematically managing water resources to ensure stability of supply. It also takes into consideration the influence of discharged water on adjacent eco systems and water-intake areas. In 2015, The total amount of LG Chem water use amounts to 63,330,905m³.

1) Domestic water consumption is subject to data change due to changed measuring method at Daesan Plant.

LG Chem operates occupational water quality target management to reduce the amount of contaminants released Into the water supply and tightened regulations in 2015 to improve facilities. To reduce the amount of waste created and minimize the effect on the environment, efforts are put forth into developing waste water condensing technology, existing waste water treatment systems, and water pollutant management methods at each worksite. The amount of overseas water pollutants have increased due to the expansion of plants and facilities. In 2015, the total amount of waste water was 17,282,181m³, and the recycling ratio in domestic worksites was 6.45%, while that of overseas worksite was 30%.

[Unit:ton, kg/product ton]

20	13	20	14	2015		
 Amount	Intensity	Amount	Intensity	Amount	Intensity	
635	0.045	684	0.046	689	0.046	
198	0.014	233	0.016	243	0.016	
124	0.060	156	0.076	388	0.182	

Air Quality Management

LG Chem is moving ahead of the competition with air quality improvement efforts as regulations on air pollutant emissions guidelines become stricter. Likewise, efforts are being put forth into reducing emissions by installing supplementary boiler burner facilities, and improving existing related systems.

Emission of A	Air Pollutants					[Unit:ton,	kg/product ton]
Classification		2013		20)14	2015	
		Amount	Intensity	Amount	Intensity	Amount	Intensity
	Dust	164	0.012	146	0.010	141	0.009
Korea	NO×	1,039	0.074	1,073	0.073	991	0.066
	SOx	383	0.027	299	0.020	285	0.019
	Dust	112	0.055	96	0.047	73	0.034
Overseas	NO×	56	0.027	230	0.112	240	0.113
	SOx	32	0.015	31	0.015	27	0.012

Total Amount of Raw Materials

LG Chem has reduced raw material consumption by utilizing resources more efficiently. As a result, the total amount of intensity raw materials of domestic operations decreased as low as 1.013 compared to the 2014 amount. In 2015, the total amount of raw materials stands at 16,982,023 ton, and the amount of recycled raw materials amounts to 22,663 ton among domestic worksites.

Total Amount of Raw Materials

Classification	ı	Unit	2013	2014	2015
	Total amount	ton	14,949,131	15,514,628	15,185,371
Korea	Intensity Total amount	ton/product ton	1.069	1.054	1.013
	Total amount	ton	1,673,929	1,685,098	1,796,652
Overseas	Intensity Total amount	ton/product ton	0.818	0.824	0.844

Waste Management

LG Chem has established and operated waste treatment strategies to identify and reduce waste sources. Recycling efforts at worksites lead to overall improved management of waste and decreased harm to the environment. In 2015, the total amount of waste of domestic operations stood at 177,401ton, and the recycling ratio was improved from 67% in 2014 to 73% in 2015 among domestic worksites.

Amount of Waste

Classification		Unit	2013	2014	2015
	Common Waste	ton	121,028	115,609	109,770
	Designated Waste	ton	38,253	50,323	67,631
Korea	Sub total	ton	159,281	165,932	177,401
	Intensity ton/product 0.011 0.011	0.012			
	Common Waste	ton	39,932	41,781	43,821
	Designated Waste	ton	9,189	11,191	13,305
Overseas ¹⁾	Sub total	ton	49,115	52,970 ¹⁾	57,126
	Intensity	ton/product ton	0.024	0.026	0.027

1) The total amount of waste has been modified according to 2014 LGCE NJ data of common and designated waste

LG Chem has restricted the use of hazardous chemicals in order to promote eco-friendly item production. Through its material element analysis system and IT system, LG Chem thoroughly manages hazardous chemical contents to decrease the total amount of hazardous chemicals found at worksites and to improve product stability and eco-friendliness.

Classification		Unit	2013	2014	2015
	Total amount	ton	3,189,845	3,341,244	5,623,781
Korea	Intensity	ton/product ton	0.228	0.227	0.375
	Total amount	ton	1,364,623	1,273,618	1,365,685
Overseas	Intensity	ton/product ton	0.667	0.623	0.642

Energy Use and Greenhouse Gas Emissions

LG Chem has adopted various methods to actively respond to climate change such as establishment of an energy committee, energy technology DB system, energy-related performance system, and major energy consumption analysis. At overseas worksites, plant operation rates increased as plants in Bohai and Botian resumed their operations after regular maintenance while the automotive battery sector expanded within the U.S. and Nanjing plant. Moreover, the company conducts process-specific activities to reduce greenhouse gas, all the while focusing on developing technology for saving greenhouse gas generated in consumers' use of its products.

Category		Unit	2013	2014	2015
Category Korea Overseas	Direct energy	TJ	87,542	83,492	90,257
Koroa	Indirect energy		48,151	51,126	49,793
Norea	Sub total ¹⁾		135,676	134,605	140,035
	Intensity	GJ/product ton	9.702	9.145	9.343
	Direct energy	TJ	2,053	2,254	1,783
Oversees	Indirect energy	TJ	7,115	6,652	9,286
Overseas	Sub total	TJ	9,168	8,905	11,069
	Intensity	GJ/product ton	4.482	4.354	5.199

Energy Use

Category		Unit	2013	2014	2015
	Direct emission	tCOT2-eq	4,697,356	4,504,759	4,815,354
	Indirect emission	tCOT2-eq	2,466,167	2,571,216	2,385,513
Category Korea Overseas	Sub total ²⁾	tCOT2-eq	7,163,510	7,075,962	7,200,851
	Intensity	tCOT ₂ -eq/prod- uct ton	0.512	0.481	0.480
	Direct emission	tCOT2-eq	143,722	159,067	110,394
	Indirect emission	tCOT2-eq	1,349,380	1,194,699	1,407,502
Overseas	Sub total	tCOT2-eq	1,493,102	1,353,766	1,517,896
	Intensity	tCOT ₂ -eq/prod- uct ton	0.730	0.662	0.713

Scope 3 Greenhouse Gas Emissions (Korea)

Unit	2013	2014	2015
tCOT ₂ -eq	30,592	27,377	16,806
tCOT ₂ -eq	17,607	17,462	18,313
tCOT ₂ -eq	12,740	13,383	12,354
tCOT ₂ -eq	15,980	16,816	18,611
tCOT ₂ -eq	1,398	1,940	2,188
	tCOT2-eq tCOT2-eq tCOT2-eq tCOT2-eq tCOT2-eq tCOT2-eq	tCOT ₂ -eq 30,592 tCOT ₂ -eq 17,607 tCOT ₂ -eq 12,740 tCOT ₂ -eq 15,980	tCOT ₂ -eq 30,592 27,377 tCOT ₂ -eq 17,607 17,462 tCOT ₂ -eq 12,740 13,383 tCOT ₂ -eq 15,980 16,816

Hazardous Chemical Use and Management

Total Amount of Hazardous Chemicals (Toxic Substances)

Scope 1, Scope 2 Greenhouse Gas Emissions

1), 2): Sub total and sum of direct and indirect data are different because data of each operation rounded off.

About this report

General Characteristics as well as future plans.

Principles of Report Preparation requirements of EICC.

Term of Report

Scope of Report scope are separately indicated.

Reliability of Report sented on page 76-77.

Additional Information

APPENDIX

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- **84** MEMBERSHIPS AWARDS AND RECOGNITIONS PARTICIPATION INFORMATION

LG Chem has published sustainable management reports every year since 2006 with stakeholders' opinions reflected within each report. In 2015, our 10th report was presented in high quality format and outlined LG Chem's major achievements of the last 10 years, a Materiality Assessment of sustainable management activities and achievements,

This report complies with the core requirements of the 'GRI G4' guideline, which is a collection of standard conditions for sustainability reporting originating from the GRI (Global Reporting Initiative), and also reflects some of the principles and contents provided by IIRC (International Integrated Reporting Council). In addition, the financial information in this report complies with the standards of K-IFRS and reflects the 10 principles of UNGC, ISO 26000, and core

This report covers activities from January to December 2015. For more accurate comparison of major sustainable management achievements, data spanning a 3 year time frame, from 2013 to 2015, is included. Specific information that may significantly affect stakeholders is also included in the reporting period from 2015 to 2016.

The report covers the 10 production plants in Yeosu, Cheongju, Ochang, Ulsan, Gimcheon, Naju, Iksan, Daesan, and Paju as well as the head office in Seoul and one technical research center (Daejeon). Overseas worksites include the 7 production corporations – LGCCI, LGCE NJ, LGCC TJ, LGCE BJ, LGCC GZ, LG BOHAI, LG BOTIAN, and LG YX - as well as those in other countries - LGCE TP, LGCMI, LG VINA, LGPI, LGCE WR, etc. (Except corporations that were recently founded, initiated, or are currently in preparation during 2015).

Economic data covers all consolidated companies. Some social and environmental data sets of a different reporting

To secure reliability, data went through an extensive verification procedure based on the DNV GL's assurance methodology VeriSustain^{TM1} and International Standard on Assurance Engagements 3000 (ISAE 3000), and subsequent results are pre-

To improve stakeholder accessibility to information, LG Chem has published sustainable management reports both in Korean and English. They are available at LG Chem Homepage (http://www.lgchem.com) as well.

INDEPENDENT ASSURANCE **STATEMENT**

Introduction

LG Chem, Ltd. ("LG Chem") commissioned DNV GL Business Assurance Korea Ltd. ("DNV GL"), part of DNV GL Group, to undertake independent assurance of LG CHEM 2015 Sustainability Report ("the Report"). The directors of LG Chem have sole responsibility for the preparation of the Report. The responsibility of DNV GL in performing the assurance work is to the management of LG Chem in accordance with the terms of reference. DNV GL's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been provided in good faith.

Scope of assurance

The scope of assurance includes a review of sustainability activities and performance data over the reporting period from 1st January to 31st December 2015. This also includes:

- · Evaluation of the principles for defining the sustainability report content in the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines 4.0
- · Evaluation of the process for determining material aspects for reporting and the management approach to material issues and the process for generating, gathering and managing the quantitative and qualitative data in the Report.

Basis of our opinion

We've performed our work using DNV GL's assurance methodology VeriSustain^{™1}, which is based on our professional experience, international assurance best practice including International Standard on Assurance Engagements 3000 (ISAE 3000). We applied the limited level of assurance. The audit was carried out in April and May 2016. The site visits were made to LG Chem's Head quarter in Seoul, Korea. We undertook the following activities as part of the assurance process:

- · challenged the sustainability-related statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls;
- interviewed representatives from the various departments;
- · conducted document reviews, data sampling and interrogation of supporting databases and associated reporting systems as they relate to selected content and performance data;
- reviewed the outcomes of stakeholder consultation report and the materiality assessment report.

Limitations

The engagement excludes the sustainability management, performance and reporting practices of LG Chem's subsidiaries, associated companies, suppliers, contractors and any third-parties mentioned in the Report. DNV GL did not interview external stakeholders as part of this Assurance Engagement. Economic performance based on the financial data is cross-checked with internal documents, the audited consolidated financial statements and the announcement disclosed at the website of Korea Financial Supervisory Service (http:// dart.fss.or.kr) as well as LG Chem's website (www.lgchem.com). These documents, financial statements and the announcements are not included in this Assurance Engagement. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. The baseline data for Environmental and Social performance are not verified, while the aggregated data at the corporate level are used for the verification. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

Conclusion

On the basis of the work undertaken, nothing comes to our attention to suggest that the Report does not properly address the adherence to the Principles for defining report content in GRI G4. Further opinions with regards to the adherence to the Principles are made below;

Stakeholder Inclusiveness

LG Chem has identified 8 internal and external stakeholder groups such as Shareholders/Rating agencies, Customers, Employees, and Suppliers, NGOs and local communities, Academia and industry experts, Industry association, Media, and State authorities. LG Chem engages with the stakeholders at the company and business unit levels through various channels. The examples of approaches to engage with selected stakeholders and expectations of respective stakeholder groups are described in the Report.

Sustainability Context

The stakeholders can review LG Way which represents the LG's corporate philosophy, LG Chem's vision and core values from the Report. In addition, the sustainability vision and principles, and 10 core tasks classified into economic, environmental and social aspects are also addressed in the Report. The process flow showing the value creation model in LG Chem's value chain by inputting various capitals helps stakeholders better understand sustainable business model of LG Chem. The audit team considers the Report is prepared in sustainability context by providing sustainability performance in 2015 and targets in 2016 for 9 material issues derived from the materiality assessment and describing management approaches.

Materiality

LG Chem has conducted the materiality assessment to prepare the Report. The pool of 24 relevant issues is formed by analysing the key issues from the global sustainability initiatives and standards, the topics that 15 industry peers consider material and the subjects covered by media for the year ending 31 December 2015. The issues in the pool are rated for the prioritization, based on the external stakeholder survey result and internalstakeholder interview result. The audit team has reviewed the materiality assessment process and confirms relevant material issues prioritized from the process are addressed in the Report.

Completeness

Accuracy and Reliability

Any errors and misstatements identified during the engagement were corrected prior to the Report being published. Based on the sampling check and the evidence provided by LG Chem, the audit team observed that the data and information from the operations in Korea are accurate and reliable in general, however the accuracy and reliability of the data and information from the international operations can be more improved by documenting the procedure and definition of performance indicators.

Opportunity for improvement The following is an excerpt from the observations and opportunities reported to OCI's management. However, it does not affect our conclusions on the Report, but is provided to encourage continual improvement. • To present the measurable performance indicators so that the analysis of sustainability performance can be addressed next year reporting.

Competence and Independence DNV GL Business Assurance is part of DNV GL Group and a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. Our environmental and social assurance specialists are present in over 100 countries. The assurance work was performed by independent team which meets DNV GL's competence requirements. DNV GL was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement.

May 2016 Seoul, Korea

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The Report has covered sustainability performances of LG Chem and management approach to material issues for the reporting period. The reporting boundary includes the operations over which LG Chem implements management control in 2015. The audit team has not noted that the material information is intentionally omitted that may influence the decision making process of stakeholders during the engagement.

DNV GL Business Assurance Korea Ltd. Country Representative In Kyoon Ahn

Sustainability Management Index

GRI G4 General Standard Disclosures

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Gover-	G4-56	Organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	16-17, Hompage	•	Goal 16
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	G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines	60-61	٠	Goal 16

GRI G4 Specific Standard Disclosures

Aspect	Index	Content	Page	External verifiction	SDG Goals
Procurement	G4-DMA	Management approach	42	•	Goal 1, Goal 5, Goal 8, Goal 10
Practices	EC9	Proportion of spending on local suppliers at significant locations of operation	67	•	Goal 12
	G4-DMA	Management approach	38	•	
Raw material	EN1	Materials used by weight or volume	72	•	Goal 8, Goal 12
materiat	EN2	Percentage of materials used that are recycled input materials	72	•	Goal 8, Goal 12
	G4-DMA	Management approach	34	•	
	EN3	Energy consumption within the organization	73	•	Goal 7, Goal 8, Goal 12, Goal 13
	EN4	Energy consumption outside the organization	73	•	Goal 7, Goal 8, Goal 12, Goal 13
	EN5	Energy intensity	73	•	Goal 7, Goal 8, Goal 12, Goal 13
	EN6	Reduction of energy consumption	34-37	•	Goal 7, Goal 8, Goal 12, Goal 13
	EN7	Reductions in energy requirements of products and services	34-37	•	Goal 7, Goal 8, Goal 12, Goal 13
	G4-DMA	Management approach	38	•	
Water	EN8	Total water withdrawal by source	71	•	Goal 6
	EN10	Percentage and total volume of water recycled and reused	71	•	Goal 6, Goal 8, Goal 12
	G4-DMA	Management approach	34	•	Goal 3
	EN15	 Direct greenhouse gas(GHG) emissions(Scope 1)	73	٠	Goal 3, Goal 12, Goal 13, Goal 14, Goal 15
	EN16	 Energy indirect greenhouse gas (GHG) emissions(Scope 2)	73	٠	Goal 3, Goal 12, Goal 13, Goal 14, Goal 15
Emission	EN17	Other indirect greenhouse gas(GHG) emissions(scope 3)	73	٠	Goal 3, Goal 12, Goal 13, Goal 14, Goal 15
	EN18	Greenhouse gas(GHG) emissions intensity	73	•	Goal 13, Goal 14, Goal 15
	EN19	Reduction of greenhouse gas(GHG) emissions	34-37	•	Goal 13, Goal 14, Goal 15
	EN21	NOx, SOx, and other significant air emissions	72	•	Goal 3, Goal 12, Goal 14, Goal 15
	G4-DMA	Management approach	38	•	
	EN22	Total water discharge by quality and destination	71	•	Goal 3, Goal 6, Goal 12, Goal 14
Wastewater and Waste	EN23	Total weight of waste by type and disposal method	72	•	Goal 3, Goal 6, Goal 12
	EN24	Total number and volume of significant spills	72	٠	Goal 3, Goal 6, Goal 12, Goal 14, Goal 15
	G4-DMA	Management approach	30	•	
Products and Services	EN27	Extent of impact mitigation of environmental impacts of products and services	30-33	٠	Goal 6, Goal 8, Goal 12, Goal 13, Goa 14, Goal 15

Sustainability Management Index

Aspect	Index	Content	Page	External verifiction	SDG Goals
Occupa- tional Health and Safety	G4-DMA	Management approach	38	•	Goal 3
	LA5	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs	40	٠	Goal 3, Goal 8
	LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	70	٠	Goal 3, Goal 8
	LA7	Workers with high incidence or high risk of diseases related to their occupation	41	•	Goal 3, Goal 8
	LA8	Health and safety topics covered in formal agreements with trade unions	40	•	Goal 3, Goal 8
	G4-DMA	Management approach	46	•	
Training	LA9	Average hours of training per year per employee by gender, and by employee category	49,69	•	Goal 4, Goal 5, Goal 8
and Education	LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	46-51	٠	Goal 8
	LA11	Receiving regular performance and career development reviews, by gender and by employee category	50	•	Goal 5, Goal 8
Local	G4-DMA	Management approach	52	•	
Communi-	SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	52-55	•	
ties	SO2	Operations with significant actual and potential negative impacts on local communities	52-55	•	Goal 1, Goal 2
Anti-Com-	G4-DMA	Management approach	60-61	•	
petitive Behavior	S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	60,Business Report 285	٠	Goal 16
Customer Health and Safety	G4-DMA	Management approach	30	•	
	PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	30-33	٠	
	PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	Business Report 285	٠	Goal 16

GRI G4 Specific Standard Disclosures - Other Disclosures

Aspect	Index	Content	Page	External verifiction	SDG Goals
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Performance	EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	34-37	•	Goal 13
	EC3	Coverage of the organization's defined benefit plan obligations	50	•	Goal 1
Market	EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	Business Report 267-269	•	Goal 5, Goal 8
resence	EC6	Proportion of senior management hired from the local community at significant locations of operation	68	•	Goal 8
ndirect	EC7	Development and impact of infrastructure investments and services supported	67	•	Goal 2, Goal 5, Goal 7, Goal 9, Goal 11
	EC8	Significant indirect economic impacts, including the extent of impacts	67	•	Goal 1, Goal 2, Goal 3, Goal 8, Goal 17
Compliance	EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	N/A	•	Goal 16
Fransport	EN30	Significant environmental impacts of transporting products and other goods and materials used for the orga- nization's operations, and transporting members of the workforce.	73	٠	Goal 11, Goal 12
Overall	EN31	Total environmental protection expenditures and investments by type	70	•	Goal 7, Goal 9, Goal 12, Goal 13, Goal 14, Goal 15, Goal 17
upplier	EN32	Percentage of new suppliers that were screened using environmental criteria	38-41	•	
Invironmental Assessment	EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	38-41	٠	
nvironmental irievance lechanisms	EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	38-41	•	Goal 16
Employment	LA1	Total number and rates of new employee hires and employee turnover	69	•	Goal 5, Goal 8
	LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	50	٠	Goal 8
	LA3	Return to work and retention rates after parental leave, by gender	69	•	Goal 5, Goal 8

Aspect	Index	Content	Page	External verifiction	
Labor/Manage- ment Relations	LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	69	٠	
Diversity and Equal Opportunity	LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	68	•	Goal 5, Goal 8
Equal remuneration for women and men	LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	Business Report 267-268	٠	Goal 5, Goal 8, Goal 10
Supplier Assessment for Labor Practices	LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	45	٠	Goal 5, Goal 16
_abor Practices Grievance Mechanisms	LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	50	٠	Goal 16
Investment	HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	69	٠	
Nondiscrimination	HR3	Total number of incidents of discrimination and corrective actions taken	50-51	•	Goal 5, Goal 8, Goal 16
Freedom of Asso- ciation and Col- lective Bargaining	HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	50	•	Goal 8
Child Labor	HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	47	•	Goal 8, Goal 16
Forced of Com- pulsory Labor	HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	47	٠	Goal 8
Assessment	HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	45	٠	
Supplier Human Rights Assessment	HR10	Percentage of new suppliers that were screened using human rights criteria	45	•	
	HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	45	•	
Human Right Grievance Mechanisms	HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	60	٠	Goal 16
	SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	60	•	Goal 16
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	SO5	Confirmed incidents of corruption and actions taken	60	•	Goal 16
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Compliance	S08	Monetary value of significant fines and total number of non-monetary sanctions for non-com- pliance with laws and regulations	Business Report 285	٠	Goal 16
Compliance	SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	42-45	•	
Supplier Assess- ment for Impacts on Society	S011	Significant actual and potential negative impacts on society in the supply chain and actions taken	60-61	•	Goal 16
Product and Service Labeling	PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	30-33	•	Goal 12
	PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	Business Report 285	٠	Goal 16
Customer Privacy	PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	0	•	Goal 16
Compliance	PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	Business Report 285	٠	Goal 16

ISO26000(International Guideline on Social Responsibility)

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10 principles of UN Global Compact

10 principles	Contents	Contents	Page
Human Rights	1. Businesses should support and respect the protection of internationally proclaimed human rights; and	Based on its management philosophy of respecting humans, LG Chem supports international declarations related to protection of human	47-51, 60-61
	2. Make sure that they are not complicit in human rights abuses.	rights, and ensures that no human rights abuse occurs in all its business operations, by including human rights in partner evaluation.	47-51, 60-61
	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	By creating LG Chem Global Human Rights Guidelines, the company	47-51, 60-61
Labor	4. The elimination of all forms of forced and compulsory labor;	protects human rights of executives and employees, prohibits forced	47-51, 60-61
	5. The effective abolition of child labor; and	labor, child labor, and discrimination, and establishes mutually	47-51,60-61
	6. The elimination of discrimination in respect of employment and occupation.	cooperative labor-management relations.	47-51, 60-61, Business Report 267
	7. Businesses should support a precautionary approach to environmental challenges;	LG Chem is conducting process-specific greenhouse gas reduction activities in order to preemptively respond to emissions trading and	34-41, 71-73
Environment	8. Undertake initiatives to promote greater environmental 49 responsibility; and	ensures mid-to-long-term improvement by establishing mid-to-long- term reduction targets and reduction targets per energy intensity.	34-41, 71-73
	9. Encourage the development and diffusion of environmen- tally friendly technologies.	Also, the company is creating eco-friendly value through developing eco-friendly technology and products.	26-29, 34-41, 71-73
Anti- Corruption	10. Businesses should work against corruption in all its forms, including extortion and bribery.	Having termed integrity management as its unique behavioral pattern, LG Chem operates integrity management implementation program and reporting system. Also, the company prevents corruption in all its forms by strengthening internal subcontracting management system, reinforc- ing regulatory compliance training for locally hired employees of its over- seas operations, and operating fair trade voluntary compliance program.	60-61, Homepage

Memberships

Membership of Organizations and Associations

Korea AEO Association	Korea Listed Companies Association	Korea Battery Industry Association
Korea Association For Chief Financial Officers	Korea Petrochemical Industry Association	Korea Information Display Society(KIDS)
Korea Employers Federation	Korea Fire Safety Association	Korea Chlor Alkali Industry Association
Korea Economic Research Institute	Korea Smart Grid Association	Korea Technical Association of The Pulp and Paper Industry
Korea Institute for Firm Contribution	Korea IR Service	Korea Chemicals Management Association
Korea Management Association	Korean Society of Automotive Engineers	Korea Chemical Industry Council of KCCI
Korea Mecenat Association	Korea Electronics Association	Korean Environmental Management Association
Korea International Trade Association	Korea Products Safety Association	Korea PC/BPA Council
Korea Vinyl Environmental Council	Korea Power Exchange	UNGC Korea Network
Korea Industrial Technology Association	Korea Electric Engineers Association	
	Korea Association For Chief Financial Officers Korea Employers Federation Korea Economic Research Institute Korea Institute for Firm Contribution Korea Management Association Korea Mecenat Association Korea International Trade Association Korea Vinyl Environmental Council	Korea Association For Chief Financial OfficersKorea Petrochemical Industry AssociationKorea Employers FederationKorea Fire Safety AssociationKorea Economic Research InstituteKorea Smart Grid AssociationKorea Institute for Firm ContributionKorea IR ServiceKorea Management AssociationKorea Electronics AssociationKorea Institute AssociationKorea PerviceKorea Institute AssociationKorea PerviceKorea Institute AssociationKorea PerviceKorea Mecenat AssociationKorea Products AssociationKorea International Trade AssociationKorea Products Safety Association

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Quality Improver Award (Minister of Trade, Industry & Energy's Award)	The 40th National Quality Management Convention		
Year's Award for Proud Alumnus of Seoul National University College Engineering	Seoul National University College of Engineering		
2015 National Green Business Grand Prize (Ochang Plant)	Ministry of Environment, Green Company Council(GCC)		
2015 Leading Resource-Circulating Business (Ochang Plant)	Ministry of Environment		
The 24th Dasan Management Award (Vice Chairman Park Jin-soo)	The Korea Economic Daily		
King Sejong Award from Patented Technology Award for second half of 2015 (for cable-style rechargeable battery)	Korean Intellectual Property Office (KIPO)		
Certified as World-class Korean Product ('SAP')	Korea Trade-Investment Promotion Agency (KOTRA)		
Dow Jones Sustainability Indices(DJSI), Asia Pacific & Korea	S&P Dow Jones Indices, Robeco SAM		
National Quality Master Award (President's Award), Quality Improver Award (Prime Minister's Award)	The 41st National Quality Management Convention		
IR52 Jang Yeong-sil Award	Ministry of Science, ICT, and Future Planning, Korea Industrial Technology Association, Maeil Business Newspaper		
Carbon Disclosure Project(CDP) Awards : Sector Leader for Raw Materials	CDP Korea		

Participation Information

Korea		
CSR Team	Competency Development Team	Management Strategy Team. IT&E Materials
Planning & Coordination Team	Corporate Culture Transformation Team	Management Strategy Department. Energy Solution
Credit Management & Compliance Team	Employee Relations Team	Business Strategy Team. Advanced Materials
Investor Relations Team	HR Service Team	Procurement Strategy Team. Basic Materials&Chemicals
Ethics Office	Safety & Environment Team	Procurement Strategy Team. IT&E Materials
HR Planning Team	Public Affairs team	Procurement Strategy Team. Energy Solution
Talent Recruiting Team	Energy/ Climate Change Team	
Global HR Team	Technology Management Team	
Leadership Development Team	Planning Team. Basic Materials&Chemicals	

Oversea LGCCI. Business Planning Team. SH&E Part LG BOTIAN. Production Team. E&S Part LG DAGU. Management Dept. HR GA Team. General Affairs Part LGCCI. Business Coordination Dept. HR Team. GA/PR Part LGCCI. Business Coordination Dept. HR Team. Employee Relations Part LGCE NJ. S&E Dept. S&E Team. Environment Part LGCCI. Business Coordination Dept. HR Team. HR Management Part LG YX. Administration Team. Administration Part LGCCI. Business Coordination Dept. HR Development Team. Leadership Part LGCE TP. General Affairs Team LGCE BJ. Security & Facility Team. Environment & Admin Part LGCMI. Accounting Team LGCC GZ. S&E Team. S&E Part LGVINA. General Affairs Department LGCC TJ. Operating Management. GA Part LGPI. HR Team LG BOHAI. Factory. Environment Part LGCE WR. Administration Team

Dow Jones Sustainability Indices In Collaboration with RobecoSAM (

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Inquir on Sustainability Report

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This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.



