



LEADING
FINE
CHANGE

ABOUT THIS REPORT

REPORT SUMMARY This Report is LOTTE Fine Chemical's first sustainability report that encompasses its sustainability activities and performances in 2015. The Report is mainly composed of the issues that were identified as material from the materiality test conducted based on the key matters in chemical industry and the global standards including GRI G4, ISO 26000, etc. Through this Report, we intend to share our sustainability management activities, performances, and goals to all of our stakeholders.

REPORTING PERIOD AND SCOPE The Report contains the qualitative performance from January 1 to December 31 2016. The quantitative performance includes the data of the recent three years (2013 – 2015) for stakeholders to compare changes in trends. Some data or activities in 2016 that are considered significant were also reported. Most of the data in the report cover both domestic and overseas worksites; however, quantitative data only cover the performance in domestic worksites due to difficulty in collecting those in overseas.

*** Major changes after the reporting period** On February 29 2016, five related parties including Samsung SDI, the previous largest shareholder of the company, sold their shares to LOTTE CHEMICAL, and the official name of the company was changed from 'Samsung Fine Chemicals' to 'LOTTE Fine Chemical' at the 52nd general shareholders meeting of the company, and in March 2016 the company successfully became one of the affiliates of the LOTTE Group.

REPORTING STANDARDS The Report is aligned with the sustainability reporting guidelines of the Global Reporting Initiative's (GRI) G4 Guidelines. Furthermore, the Report has been written in accordance with the Core Option of the GRI G4 Guidelines. For more details, please refer to the GRI Index page (P. 64-66).

ASSURANCE The financial information in the Report was assured by Samil PWC, and the non-financial information was assured by the Deloitte Anjin LLC. The assurance statement can be found in page 68-69.

INQUIRIES

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This Report was developed into an interactive PDF that connects to relevant websites and pages for readers' easy accessibility.



LFC Website

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CEO Message

Dear Stakeholders,

Since its establishment in 1964, LOTTE Fine Chemical (LFC) has successfully accomplished continuous growth and development through change and innovation amid numerous obstacles and difficulties, and now, a new phase of another challenge has begun. In the midst of the rapidly changing management environment, we have successfully evolved based on the creative harmony between labor and management, and every employee strives to continue the company's history and tradition.

Recently, global markets including the chemical industry have undergone difficulties due to the slowdown in economic growth in China, decline in global demand, and rapid changes in crude oil prices and exchange rates. In order to overcome such issues, LFC will reinforce the existing businesses in the chemical and green material sectors, and further explore new business opportunities. Moreover, to fulfill the role of a specialty chemical company under the LOTTE Group, we will not only establish a new vision, but also execute our sustainability management in the three approaches as follows.

Set Safety and the Environment as the Top Priority

The most crucial parts of the basic principles of a chemical company that handles chemical substances are safety and the environment. Therefore, we are strengthening safety and eco-friendliness throughout the company and become a socially trusted company by improving safety and environmental management, employee training, as well as providing support for suppliers to build their own systems.

Maintain Profitability and Build the Basis for Long-term Growth

Stable profitability is essential for achieving the sustainable growth and development of a company and to respond to expectations of various stakeholders. We will strive to improve the profitability of our products through new market entry and cost innovation. Furthermore, by reinforcing the chemical sector and synergy of the LOTTE Group and utilizing the technology in the fine chemicals sector, we will firmly lay the foundation for mid- and long-term growth.

Build a More Creative Labor-Management Relation

The creative partnership of our labor-management in the process of reformation into LOTTE Fine Chemical had strong impact on both industry and society in overall. Based on our open appreciation and communication to each other as one entity, we will develop our creative labor-management culture.

LOTTE Fine Chemical strives to actively communicate with the stakeholders and create shared values in the society.

The '2015 LOTTE Fine Chemical Sustainability Report' published for the first time by LFC is an opportunity for active communication with all stakeholders including customers, suppliers, employees, local community, shareholders and investors who have shown support and encouragement to the company even during the various changes over the past few years. We will continue our strong engagement in activities for corporate social responsibility and in creating shared values (CSV) for shared growth with stakeholders. We ask for your interest and support in our efforts.

Sincerely,

July 2016



Sung-Yup Oh
CEO of LOTTE Fine Chemical



LEADING NEW WAY

LOTTE Fine Chemical has always led growth in the chemical industry in Korea. Now we are accelerating our pace of innovation so that we can become a "global specialty chemical company", advancing beyond general chemicals into high value-added fine chemicals.

Company Status

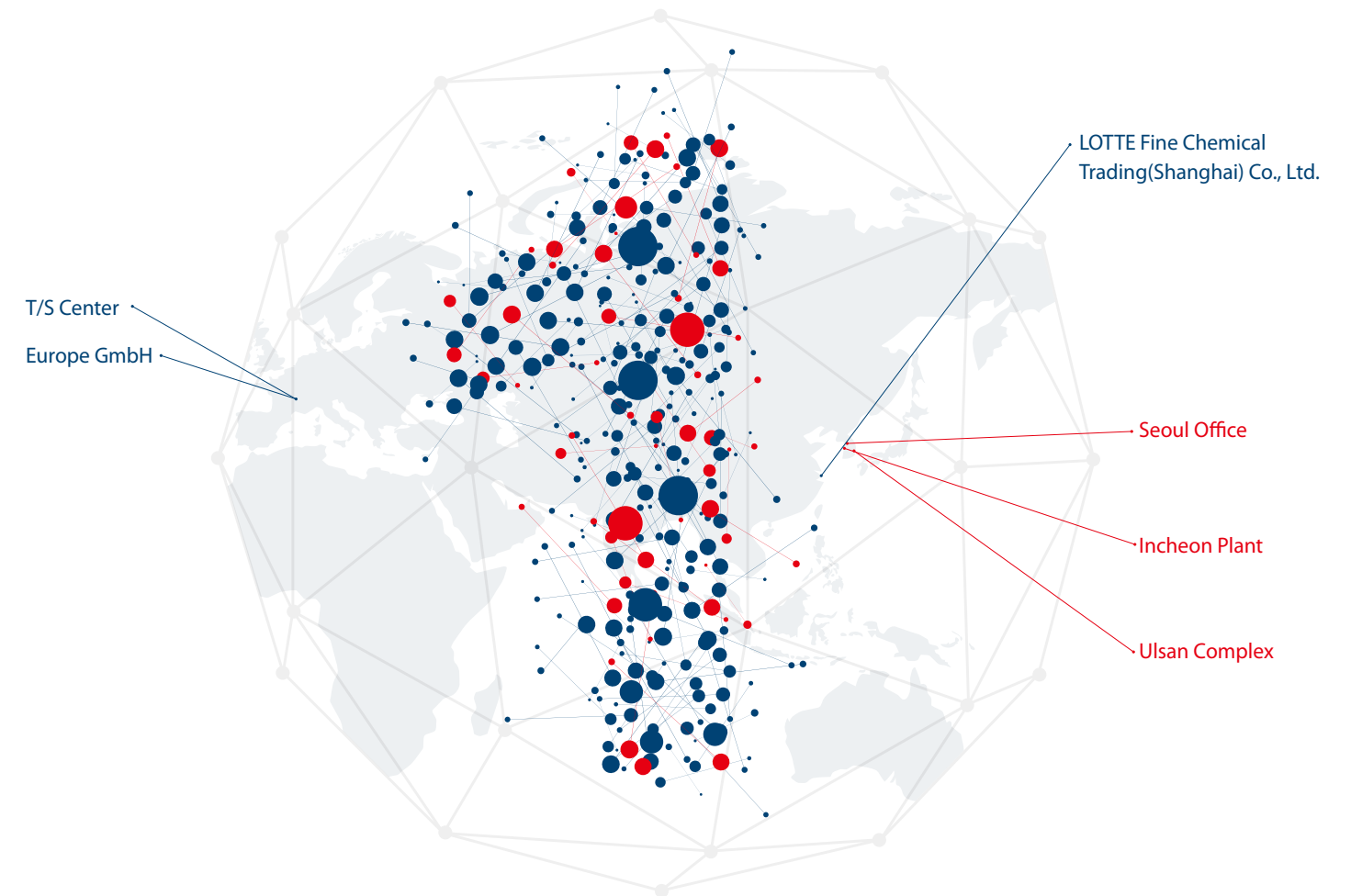
Company Name	LOTTE Fine Chemical Co., Ltd.
Foundation Date	August 27 1964
Listing Date	April 15 1976
CEO	Sung-Yup Oh
Industry Type	Chemical Product Manufacturing
Settlement Date	December 2015
Head Office	19, Yecheon-ro 217beon-gil, Nam-gu, Ulsan, South Korea
Contact	+82-52-270-6114
Total Assets	KRW 1,684.2 billion
Total Equity	KRW 1,163.6 billion
Debt to Equity Ratio	44.7%
Total Sales	KRW 1,161.9 billion
Net Profits	KRW 90.0 billion
Value Allocation to Stakeholders	KRW 539.4 billion

* As of end of 2015

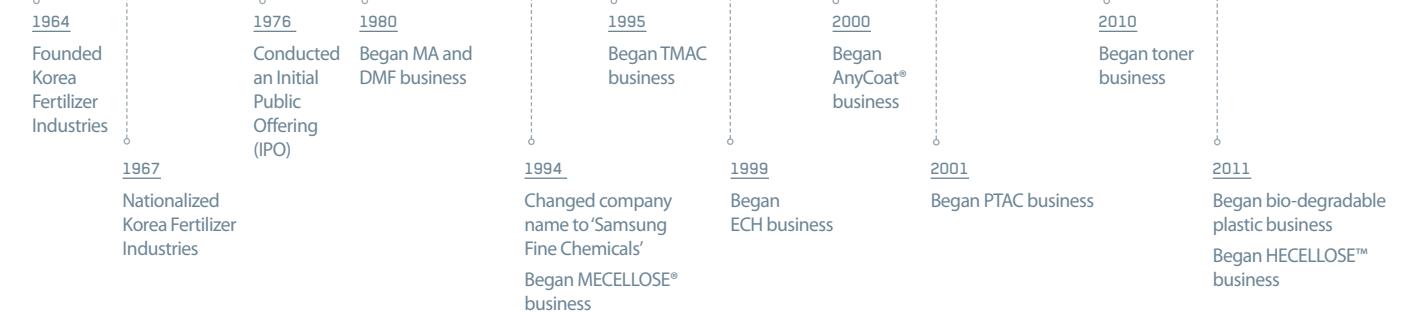
VISION

Global Specialty Chemical Company

We never stand still but relentlessly drive change and innovation to achieve sustainable growth by delivering better solutions which enrich people's lives.



History



FORMING NEW FUTURE

In February 2016, LOTTE Fine Chemical struck out in new directions as a member of the LOTTE Group as we completed restructuring and streamlining our business so that, based on half a century of experience and creative partnership, we can play a key role in the Group's chemical business.

2012
Expanded MECELLOSE® plant
Expanded AnyCoat® plant
Expanded toner plant

2013
Expanded ECH/caustic soda plant

2014
Established Europe GmbH and T/S Center

Aug. 2015
Acquired shares of Samsung BP Chemicals

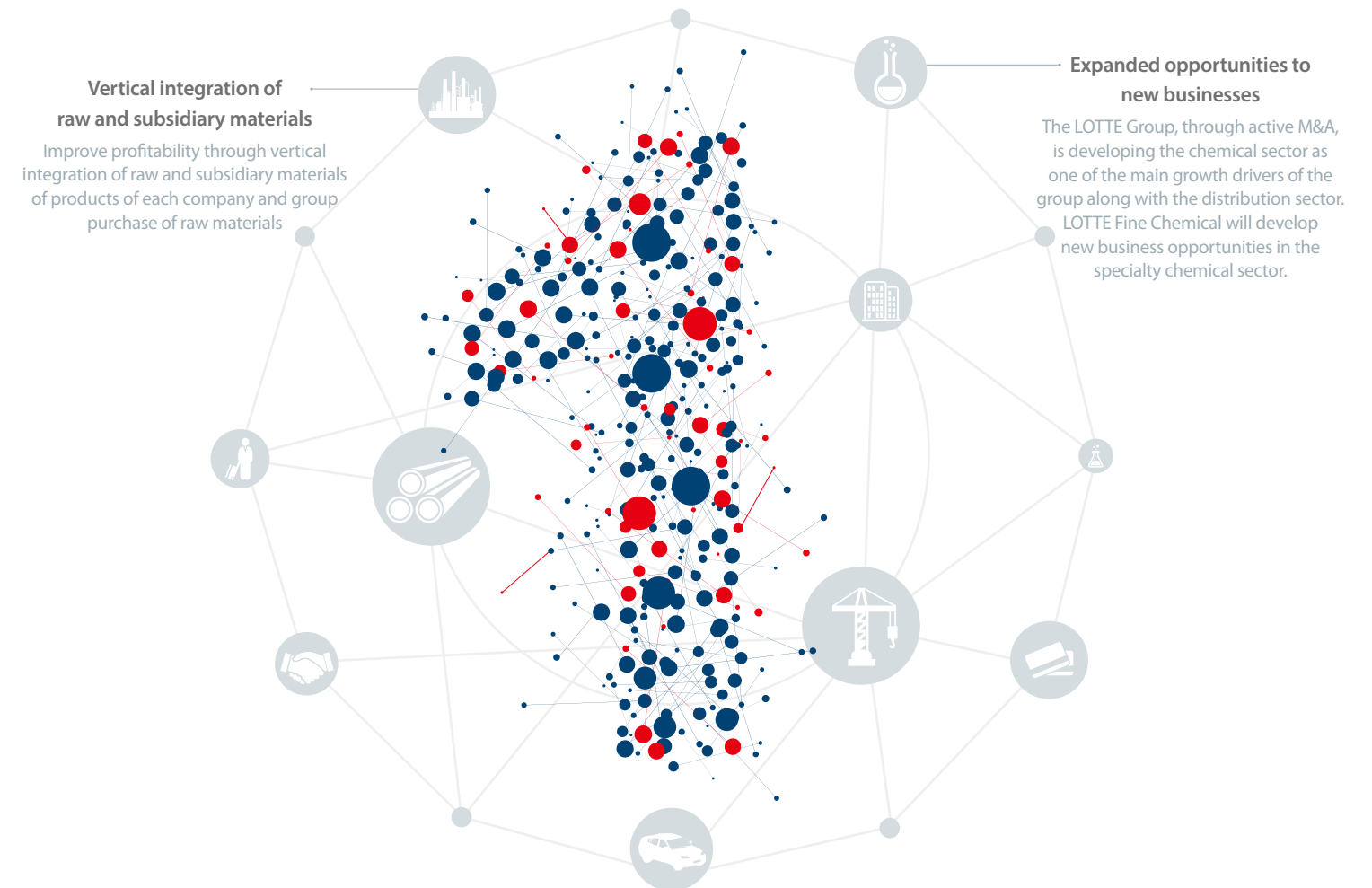
Oct. 2015
31% of shares acquired by LOTTE CHEMICAL

Feb. 2016
Changed company name to LOTTE Fine Chemical

SYNERGY

Creating Integrated Synergy

We have formed a dedicated team to explore how we can create synergy as part of the LOTTE Group, and look for ways to collaborate with other Group affiliates to pursue business opportunities.



Vertical integration of raw and subsidiary materials

Improve profitability through vertical integration of raw and subsidiary materials of products of each company and group purchase of raw materials

Expanded opportunities to new businesses

The LOTTE Group, through active M&A, is developing the chemical sector as one of the main growth drivers of the group along with the distribution sector. LOTTE Fine Chemical will develop new business opportunities in the specialty chemical sector.



Technological and R&D Cooperation

We are creating R&D synergy by exchanging technologies with the R&D sector of the LOTTE Group affiliates. To strengthen the competitiveness of eco-friendly bio-degradable resins, we are expecting the synergy effect in related areas from technological cooperation with the LOTTE CHEMICAL R&D Center, with abundant experience and competencies accumulated in businesses in various polymer materials.

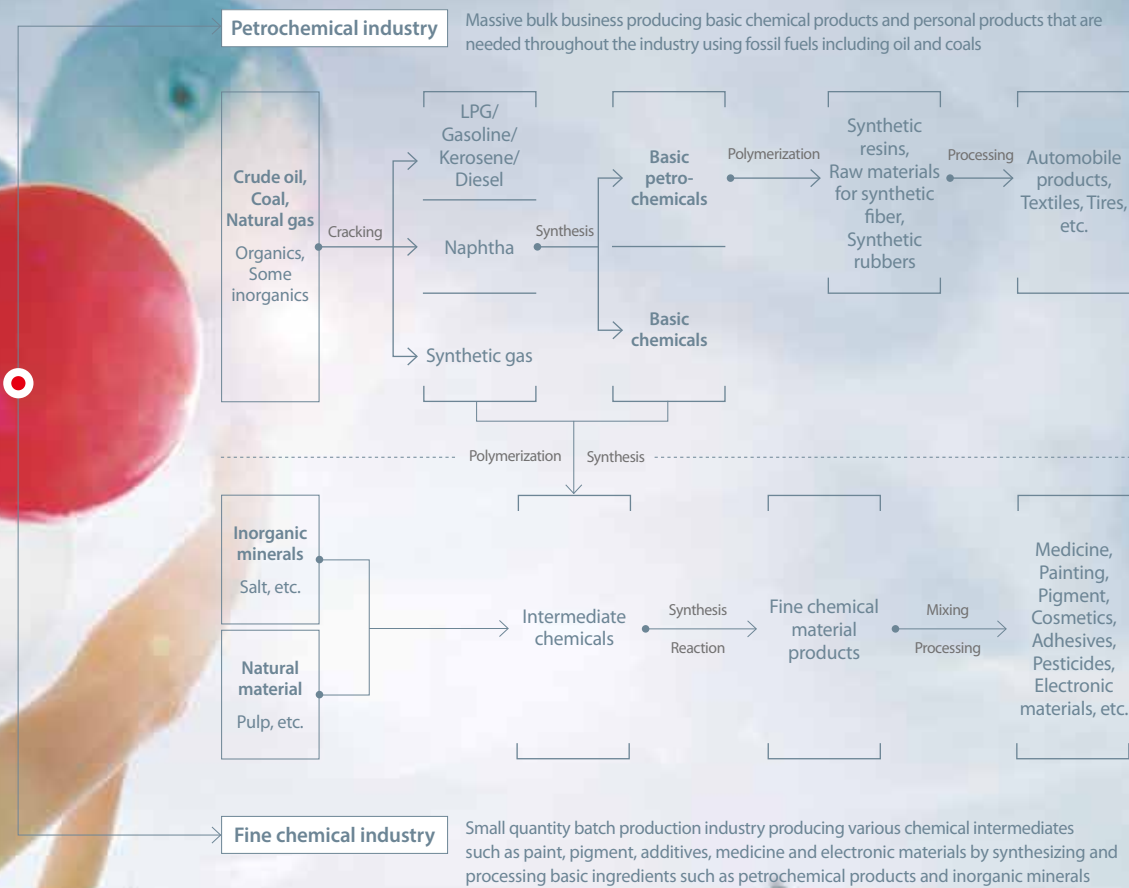


Synergy on Global Network

150 subsidiaries of the LOTTE Group affiliates are located in over 21 countries, mainly in Asia. Especially, LOTTE CHEMICAL has production infrastructures in eight countries including the US and Uzbekistan, and has the capacity to create synergy by improving the local sales and marketing competitiveness through overseas basis.

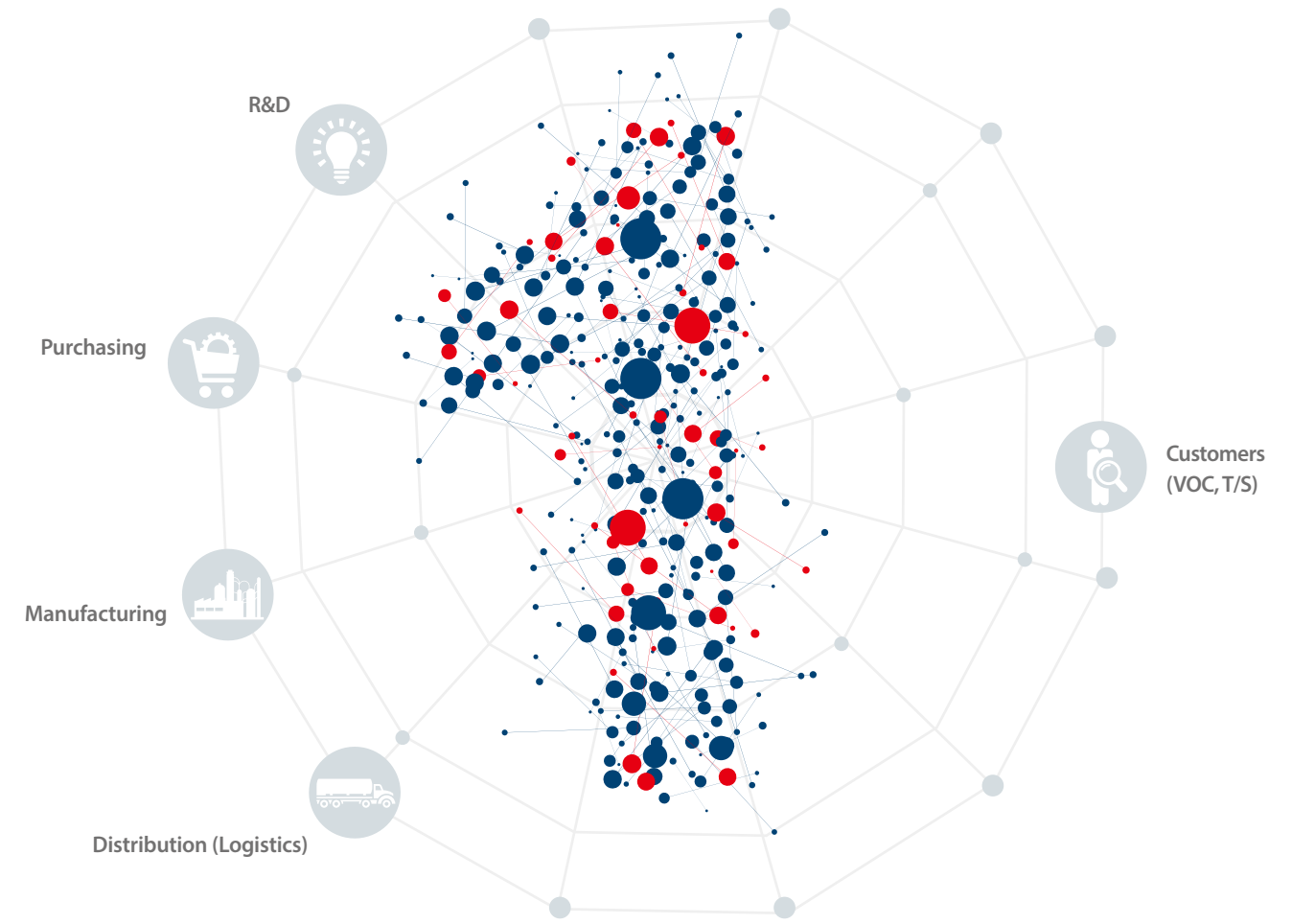
CREATING NEW VALUE

In order to achieve sustainable growth, LOTTE Fine Chemical aligns our economic value with environmental and social responsibilities. By putting sustainability at the center of our entire value chain, we are able to create new value which in turn has a positive impact on all our stakeholders.



SUSTAINABILITY Sustainable Value Chain

We are committed to creating a sustainable value chain by delivering better products, minimizing environmental impact, contributing to society, and building a safer work place.



	Chemical Substances Management System				VOC System
	R&D	Purchasing	Manufacturing	Distribution (Logistics)	Customers (VOC, T/S)
Major Activities	Process for evaluating the safety of ingredients and developed products are implemented from R&D stage for selecting raw ingredients.	By securing high quality raw ingredients and materials based on the fair trading process to purchasing partners, the best products are provided to customers.	Through continuous innovation in the field, energy consumption and various waste matters are minimized, and efforts to establish safe workplace are being made from chemical facility handling process.	The overall efficiency in logistics from importing and storing of raw materials to shipment of products is improved to more safely and quickly deliver products to customers.	Taking the role of solution provider who supports the success of customers by listening to the voices of customers and expanding customized technological support in accordance with the characteristics of fine chemicals as integrative technology.
	Evaluate safety and stability of raw materials and products	Conduct and expand target of ingredient import inspection, conduct and reinforce the level of quality audit, and train fair trading education to all personnel in charge of purchasing	Operate the safety and risk prevention center, field innovative activities to improve safety and manufacturing competitiveness, and conduct internal quality process audit	Reinforce safety facilities of chemicals storage tanks, train tank and lorry operators on independent safety education, improve product packaging and recycle consumables	Operate Voice Of Customers (VOC) process, T/S (technical service) activities, operate global T/S center

Business Overview

On the basis of high value-added fine chemical products, we contribute to achieving both the LOTTE Group's mission to "enrich people's lives by providing superior products and services that our customers love and trust," and the vision for the chemical sector to become a 'Global Top 10 Integrated Chemical Company'.

The fine chemical industry is an intermediate materials industry that supplies materials to industries such as synthetic fiber, automobiles, electronics, petrochemical, and life science, etc. using raw materials from basic chemical industry including the crude oil, petrochemical, coal and fertilizer industries.

Our major products and goods are used as industrial intermediate materials. LFC supplies raw materials to diverse downstream industries from agriculture, fiber and paper industries to construction, pharmaceuticals and electronics. We are also diversifying vendors by flexibly adjusting the proportion of domestic sales and exports adapting to the market conditions.

Medium and Long Term Vision

To become a 'Global Top 10 Integrated Chemical Company', which is the vision of the chemical sector of the LOTTE Group, LFC is seeking the key roles and growth as a 'specialty chemical company'.

Mid-to Long-term
Vision of the
Chemical Sector of
the LOTTE Group



Mid-to Long-term
Vision of LFC



Strategy for Sustainable Growth

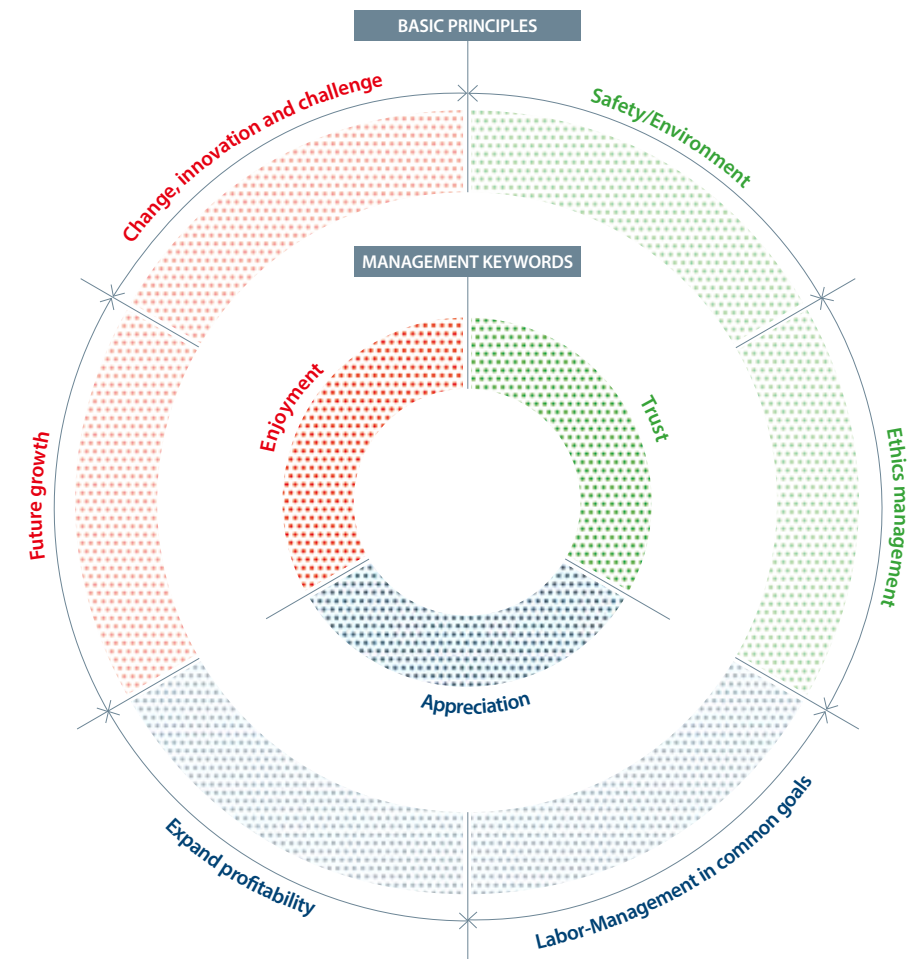
LFC has been restructuring the business structure to overcome uncertainties around the company.

In 2015, we sold the battery material business to Samsung SDI and acquired additional shares of LOTTE BP Chemicals as a measure of business restructuring, thereby building a foundation to enhance profitability. Moreover, we strengthened the core competitiveness of the specialty chemical sector such as the cellulose business by using secured investment capacity and capital.

In the meantime, the global market in the fine chemical industry, showing an annual average growth rate of around 5.1%, is expecting to reach 2.5 trillion USD by 2020. In particular, with the increased interest of consumers in better living standards, health, medicine, cosmetics, additives, adhesives and catalyst are expected to see higher growth rates than the annual global GDP growth rate. It is predicted that the market will be expanded into the core areas for new industries including environment, energy, informative electronics and biotechnology.

Thus, we will bring forth economies of scale on specialty chemical businesses such as MECCELLOSE®, AnyCoat® and ECH with global competitiveness, while promoting stable profitability and continued growth based on diverse intermediate products and core technologies.

2016 Management Principles



Chemicals Business



Chemicals Business Division runs businesses based on chloride relatives such as ECH and caustic soda, and on ammonia relatives including ammonia, EUROX®, and amines, mainly targeting the domestic market. In 1964, we started the urea fertilizer business which uses naphtha as material, and in 1980, began the amines business of DMA, DMF, etc. In 1990, we expanded our business portfolio through the chloride relatives. Since the late 2000s, in alignment with sustainability trends, we have strived to diversify our business portfolio to environmentally-friendly products. In 2008, we entered into the aqueous urea solution business that reduces the amount of nitrogen oxides from exhaust gas of diesel vehicles, and in 2011, we entered the biodegradable plastic business in which microorganisms degrade plastic in its natural state without leaving harmful substances.

2015 Activities

- **ECH** Expanded production capacity in response to growth of major markets and reinforced business competitiveness through continuous cost reduction
- **EUROX®** Conducted various marketing activities to improve customer awareness, reinforced the logistics system to improve customer accessibility and diversified sales routes
- **Caustic soda** Improved the transportation facility in response to environmental safety issues and established an advanced supply base
- **DMA** Improved customer satisfaction by expanding product shipment specifications

2015 Performance

- Sales of chlorine products (ECH, caustic soda, etc.)
(Unit: KRW billion)
382.7
- Sales of ammonia products (Ammonia, EUROX®, etc.)
(Unit: KRW billion)
461.8

2016 Outlook

- **Chlorine products**
Although the market demand is recovering, the market is still oversupplied. We will actively expand our market share and take defensive strategies in the future.
- **Ammonia relatives**
By providing ammonia, main raw materials used in various industries, at competitive prices based on the ammonia purchasing power that established its global position, we will contribute to enhancing the competitiveness of major industries such as fertilizer, synthetic fiber and resin. Also, we are further striving to expand sales by securing market share through continuous expansion of business partners and launching higher value-added downstream products.

Business Case

Participated in the APAC Conference for Emissions Summit & Urea Solution Forum



As a platinum sponsor, LFC participated in the '1st Integer Emissions Summit & Urea Solution Forum Asia Pacific 2016' held by the Integer Research, a professional emissions research institute in UK. At the conference, government officials, personnel from commercial vehicle industry, and LFC gathered to discuss the status and outlook of emission regulations and Adblue®.

LFC installed a booth for the aqueous urea solution product, 'EUROX®', to introduce a newly developed aqueous urea solution dispenser, EUROX® Bulk Dispenser (EBD), and also provided a presentation regarding the status and outlook of the urea solution market in Korea. In particular, by introducing the technology eliminating the phenomenon of whitening of the aqueous urea solution at low temperatures called Triuret, we have introduced the superiority of eco-friendly products of LFC to customers and markets.

We have continued to respond decisively to changing market conditions to stay strong and competitive. In particular, we have been focusing on diversifying our business portfolio to include eco-friendly products, with an aim of leading green growth.



Key Strategic Tasks

STABLE SUPPLY OF HIGH QUALITY PRODUCTS

- Optimize the manufacturing and logistics systems to ensure a stable product supply

PORTFOLIO DIVERSIFICATION

- Develop high value-added products and plan for securing technology

SYNERGY ENHANCEMENT WITH LOTTE AFFILIATES

- Strengthen synergy using the business infrastructure of LOTTE CHEMICAL
- Review measures for collaborating with other affiliates

Green Materials Business

Green Materials Business Division supplies plant based cellulose products to companies in various industries such as construction, paint, pharmaceuticals, food, vehicle parts and oil drilling. The MECELLOSE® plant has been constructed (1994) to advance into high quality and high value-added chemical industry, and the business for AnyCoat® has launched with the increased demand in pharmaceutical market following the change in population structure. The division has launched AnyAddy® (2010, food additive) and HECELLOSE™ (2011, additive for water-based paint & personal care), thereby diversifying its portfolio.

Green Materials Division treats additives that are capable of affecting properties and performances of its end-products with small portions and develops customized grades to meet the customers' needs. With due consideration for the effects on human body, quality management is emphasized in additives for food and medicine, and corresponding certifications are obtained in accordance to regulations.

2015 Activities

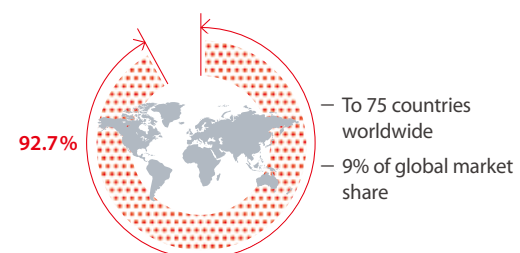
- **MECELLOSE®** Expanded sales by developing new applications and advancing into new markets, and continued to develop new grades
- **AnyCoat®** Expanded global market share by entering into new markets through quality improvement and the development of new grades – achieved the biggest sales volume since the launch of business
- **HECELLOSE™** Increased production efficiency and capacity

2015 Performance

• Total sales



• Proportion of exporting



2016 Outlook

- Due to the weakened demand of the construction industry which is the end-use industry, there is slow demand for a few products. Construction additives are directly affected whereas coating (painting) additives are expected to have stable demand due to favorable trends in the North American markets.
- The high value-added medical and food additives have bright prospects with the favorable trend of the downstream industry.

Business Case

Participated in the International Coating Show



LFC has participated in the European Coating Show, one of the globally known coating shows, since 2013 to provide technical support and introduce products to international customers. The 2015 European Coating Show was held in Nuremberg, Germany, with a total attendance of 1,024 companies and approximately 28,000 participants from over 100 countries. LFC introduced MECELLOSE® and HECELLOSE™ that are green material products, promoted high functional products and increased product awareness by distributing brochures and installing art walls describing the properties of each product.

Participated in CPhI Worldwide, International Pharmaceuticals Fair



LFC has been participating in the CPhI (Convention on Pharmaceutical Ingredients & Intermediates) Worldwide, the biggest fair in the pharmaceutical industry, since 2011. A total of 2,500 companies from over 150 countries worldwide participated in this 2015 CPhI Worldwide held in Madrid, Spain. We introduced AnyCoat®, an ingredient for medicinal capsules, provided technical support to customers and implemented marketing activities.

We pursue stable and continuous growth on the basis of global competitiveness gained through increased production capacity, cost reduction, thorough quality management, and the creation of new markets.



Key Strategic Tasks

INNOVATION

- Strengthen the sales/marketing departments
- Fundamental cost innovation

GLOBAL MANAGEMENT

- Expand overseas networks
- Reinforce global sales channels

DEVELOPMENT OF CUSTOMER-FOCUSED TECHNOLOGY

- Serve as a "solution provider"
- Strengthen the product portfolio

ESTABLISHMENT OF THE BASE FOR SUSTAINABLE GROWTH

- Develop new applications
- Explore new businesses

Global Trends and Responses

We strive to become a global specialty chemical company by responding to global changes through preemptive market sensing.

Recently, the chemical industry is experiencing changes in the fundamental paradigm such as strategic M&A, accelerated technological innovation and reinforcement of international environmental regulations. LFC is monitoring and analyzing the rapidly changing industrial environment. Also, it identifies the risks and opportunities to actively reflect them in management activities.

TREND I



Change of management strategy required

Due to the decline of global demand and prolonged low growth, companies are converting their management strategy from quantitative growth to qualitative growth focused on internal stability. In addition, both economic growth and the approach of the aging society are intensifying people's interest in health and well-being. This is leading to potential high growth in high value-added industries such as the pharmaceutical and bio industries.

- Management strategy changed to quality-focused
- Changes in population structure, such as aging society
- Development of high value-added products

Our response to this trend: P. 16-17

TREND II



Changes in the business environment of the chemical industry

With the continued economic recession, the chemical industry has been experiencing changes for profit improvement and long-term growth including association between specialty chemicals and existing petrochemical sectors, integrating businesses and expanding scales through M&A. The industry is also striving to discover new growth momentum such as reinforcing technologies and combining new technologies through cooperation with external professional organizations including the academic circle and research institutes.

- Reorganization of business portfolio
- Approach to preemptive business restructuring
- Acceleration of new technology-based innovation

Our response to this trend: P. 20

TREND III



Global financial market volatility increased

The era of the 'New Normal', in which low interest rates and low growth have been established worldwide is continuing. Hence, consistent monitoring of changes in the foreign exchange market and the diversification of sales channels are required. In particular, LFC whose exports account for 52% of its total sales is reinforcing the sensing activities on global financial markets and proper management of foreign currencies and company bonds to appropriately respond to the fluctuation risk of interest rates and foreign exchange rates as its exports have great influence on its sales and profits.

- Continuous slow growth, low interest rates and low profits in global economy
- Needs for clients diversification
- Increase in volatility of global exchange rate

Our response to this trend: P. 26-27

TREND IV



Regulations on safety and environment strengthened

Recently, with frequent accidents in the chemical industry, the importance of preemptive safety management is being highlighted, and related regulations are being reinforced. Also, active response to the Chemicals Control Act and the Act on Registration and Evaluation, etc. of Chemicals that have been enforced in 2015, and the Emissions Trading Scheme is required.

- Increased social interest in safety
- Implementations of Act on Registration and Evaluation, etc. of Chemicals, Chemicals Control Act, and Emissions Trading Scheme
- Needs for more investment in safety and environment

Our response to this trend: P. 40-43

2015 Highlights



Regular maintenance on the Ulsan Complex



LFC has conducted a regular maintenance under the slogan 'One Spirit! One Body! Complete Repair'. It carried it out for approximately a month from March 2015 without any accident. This was successful in the aspect that the complex was operated at once within the proposed schedule and budget. This was possible because the regular maintenance was predicted and prepared through a detailed plan focused on a process called the 'MS Project' from a year ago.



Commitment to making safety a top priority



In September 2015, the PSM grade, the government certified safety grade was upgraded by two stages from grade M to grade S. This was the result of comprehensive efforts including the active activities of the Occupational Safety and Health Committee against irrationality, the faithful field innovation by workers and engineers, the safety culture of LFC called the 'safety golden time' and the establishment of a complete safety and disaster prevention facility.



Declared the strengthening of global manufacturing competitiveness



In May 2015, the labor and management of LFC announced the 'Declaration of Strengthening Manufacturing Competitiveness' to show their commitment to recover risks through creative partnership. The declaration is the core pillar for securing top technology competence, manufacturing innovation, and safety and environment activities which are needed for growth and stable profit creation of the company, based on global top-tier competitiveness.



Business portfolio restructuring and office move to Seoul



On 29 August, 2015, LFC transferred the secondary battery material business requiring consistent R&D and massive investment to Samsung SDI. With this, we sold off the R&D building and facilities in Suwon electronic material research complex to Samsung Electronics to gain cash liquidity. Also, by acquiring shares of LOTTE BP Chemicals, it improved business portfolio and profitability and provided the foundation to advance into the high value-added fine chemical industry.



The LOTTE Group's announcement to take over Samsung Group's chemical business and our response



On 30 October, 2015, after its sale from Samsung Group to the LOTTE Group was decided, LFC announced the company and labor joint statement based on creative partnership as the entity of change. This fresh move, different from previous behaviors, was evaluated positively by not only industries but the wider society as well. The LOTTE Group also responded with its own statement.

In 2015 LFC continued to challenge and innovate, which led to significant change for the better in creating not only economic but also social and environmental values.



Chemicals Business Division Getting closer to customers by thinking customers first

In 2015, we have promoted strategies for improving accessibility by increasing the awareness of competitive products by LFC and stabilizing the supply chains.

For caustic soda, we have reinforced safety equipment in transportation vehicles to protect the environment and built the forwarding supply base near customers to complete the establishment of more stable supply system.

We have increased the awareness by actively engaging in EUROX® brand marketing including radio advertisements, and expanded the distribution of the injectors exclusive for EUROX® nationwide so that customers can easily use our products. Also, we have promoted the establishment of the base logistics system.

By shipping the anhydrous form of DMA, we have eased the burden of investment in incoming facilities for customers. These activities will facilitate the smooth supply of products and enhance customer satisfaction. Also, from the process of expanding specifications, we have provided safety devices by stage to prevent product leakage in consideration of environmental safety.



Green Materials Business Division Enhancement of global competitiveness and growth through developing new uses

Based on the expansion of the European office to a corporation in late 2014, and newly establishing the T/S (Technical Service) center, we have reinforced the global business competitiveness from the advanced markets of the European region as the basis to continue expanding the overseas sales in 2015.

We have secured a massive sales channel for AnyAddy®, a new high functional food material, and expanded new applications. In 2015, we have achieved the selection of AnyAddy® by domestic large baking and confectionary groups as a new material for cream and baking ingredients.

Also, as a new purpose, AnyAddy® is being supplied as the major ingredient for a new health supplementary food by a famous pharmaceutical company in the US. This product is a dietary supplement made of dietary fiber recognized for its functionality of helping intestinal mobility and promoting the metabolism. We will keep discovering new purposes for the characteristics of specialty products with a high potential of applying new purposes.

SUSTAINABILITY MANAGEMENT

Our thoughts and actions are guided by the principle of sustainability, and based on transparent and stable corporate governance along with systematic sustainability management system, all members of LFC work in unison to grow with our stakeholders.

Corporate Governance

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Risk Management

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Ethics Management

Sustainability Management System

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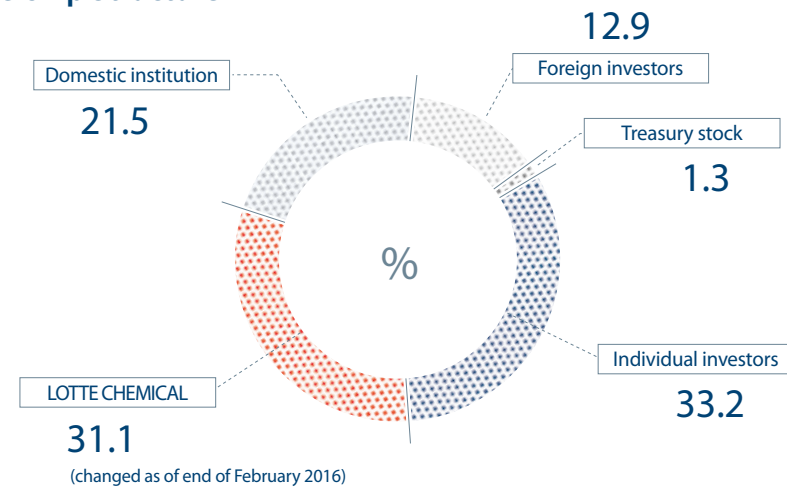
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Stakeholder Engagement

Materiality Assessment

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Ownership Structure



* Since the LOTTE Group signed a deal to acquire the stake of the company from Samsung Group on October 30th 2015, LOTTE CHEMICAL has bought a 31.1% stake in the company from several Samsung Group subsidiaries, including Samsung SDI, as of February 29th 2016.

BOD Members and Activities

BOD Status

As of end of February 2016, the board of directors (BOD) of LFC is composed of five directors including two internal directors, two outside directors and one non-executive director. Directors with a specialty in each sector are appointed from the general meeting of shareholders according to related regulations.

Classification	Name	Career Profile
Inside director	Sung-Yup Oh	2016 Director of Management Support Headquarters of LOTTE CHEMICAL
		2013 Director of Monomer Business Headquarters of LOTTE CHEMICAL
		2012 Head of Planning Sector of Honam Petrochemicals
Inside director	Kyung-Moon Jung	2016 Head of Planning Sector of LOTTE CHEMICAL
		2015 Director of Vision Strategy Office of Policy Headquarters of the LOTTE Group
		2012 Director of International Office of Policy Headquarters of the LOTTE Group
Non-executive director	Byung-Yeon Lim	2014 Head of Department/Executive Director of Vision Strategy Office of Policy Headquarters of the LOTTE Group
		2011 Director of International Office of Policy Headquarters of the LOTTE Group
		2008 Head of Planning Sector/Director of KP Chemicals
Outside director	Dong-Geul Byun	2014 Corporate Lawyer of Hwawoo Law Firm
		2013 Chairman of Mediating Committee of Seoul Central District Court
		2005 Representative Lawyer of Hwawoo Law Firm
Outside director	Seok-Hwan Park	2014 Auditor and Outside Director of LOTTE CHEMICAL
		2012 Ambassador of the Embassy of Republic of Korea in UK
		2011 Vice Minister for the Foreign Affairs and Trade 1
Auditor	Byung-Hong Kim	2011 Head of Coffee Sector of LOTTE Chilsung Beverage
		2009 Head of TGIF Sector of Lotteria

BOD Activities in 2015

The Board of Directors deliberates and decides upon matters set by laws or articles, matters consigned by the general meeting of shareholders, basic principles of the company and important matters in executing businesses. The BOD is composed of directors appointed from the general meeting of shareholders. Regular BOD meetings are held monthly, but if there is no agenda, it can be not held, and temporary BOD meetings are held as needed. The resolutions in BOD meetings are made by the attendance of majority directors and majority vote of attending directors. The voting rights of directors with a special interest in the agenda are restricted. In 2015, a total of eight BOD meetings were held, to decide upon major agendas including the establishment status of the management plan, approval to execute director salary limits, installation of the internal trade commission, transfer of the battery material business and acquisition of shares of LOTTE BP Chemicals, etc.

Sub-Committees of BOD

To improve the efficiency of management activities, the management committee, compensation committee and the related party transaction committee have been established as sub-committees of the BOD.

Committee	Composition	Name	Roles
Management Committee	2 inside directors	Sung-Yup Oh Kyung-Moon Jung	<ul style="list-style-type: none"> Efficiency of management and operation Resolution of consignments of the BOD
Compensation Committee	2 outside directors and 1 inside director	Dong-Geul Byun Seok-Hwan Park Kyung-Moon Jung	<ul style="list-style-type: none"> Objectivity and transparency in calculating director compensation Compensation limits of registered directors to be submitted to the general meeting of shareholders Other matters consigned by the BOD
Internal Trade Committee	2 outside directors and 1 inside director	Dong-Geul Byun Seok-Hwan Park Kyung-Moon Jung	<ul style="list-style-type: none"> Secure transparency in company management by establishing an autonomous fair trade compliance system

Independency of the BOD

Transparency in Appointing Directors

With the total assets less than KRW 2 trillion at the end of the previous year, LFC does not operate the outside director nominating committee, however, for fairness and independency, it is appointing directors from the nomination of the BOD and resolution of the general meeting of shareholders. If the candidates for directors have been fixed before the notification to convene the general meeting of shareholders, the name and career experience of the candidate shall be notified and announced.

Expertise of Outside Directors

LFC nominates external experts with professional knowledge and experience in management, economics, laws, or relevant technology as outside directors. An assisting organization provides support to outside directors for more professional implementation of their duties. The outside directors are provided with a separate presentation regarding the items to be discussed at the board meeting, and also frequently offered with other internal matters that are considered important.

Independency of Auditing

To monitor the BOD to be operated in accordance with the articles of incorporation and related laws, an auditor is appointed. The auditor may attend BOD meetings and independently oversee the directors' performance. And if required, the auditor may request related accounts and documents at relevant departments and will receive reports from the company regarding business operations. Issues that are raised by the auditor will be reported immediately to the BOD and CEO, measures are taken according to related guidelines, and follow up measures are taken regularly.

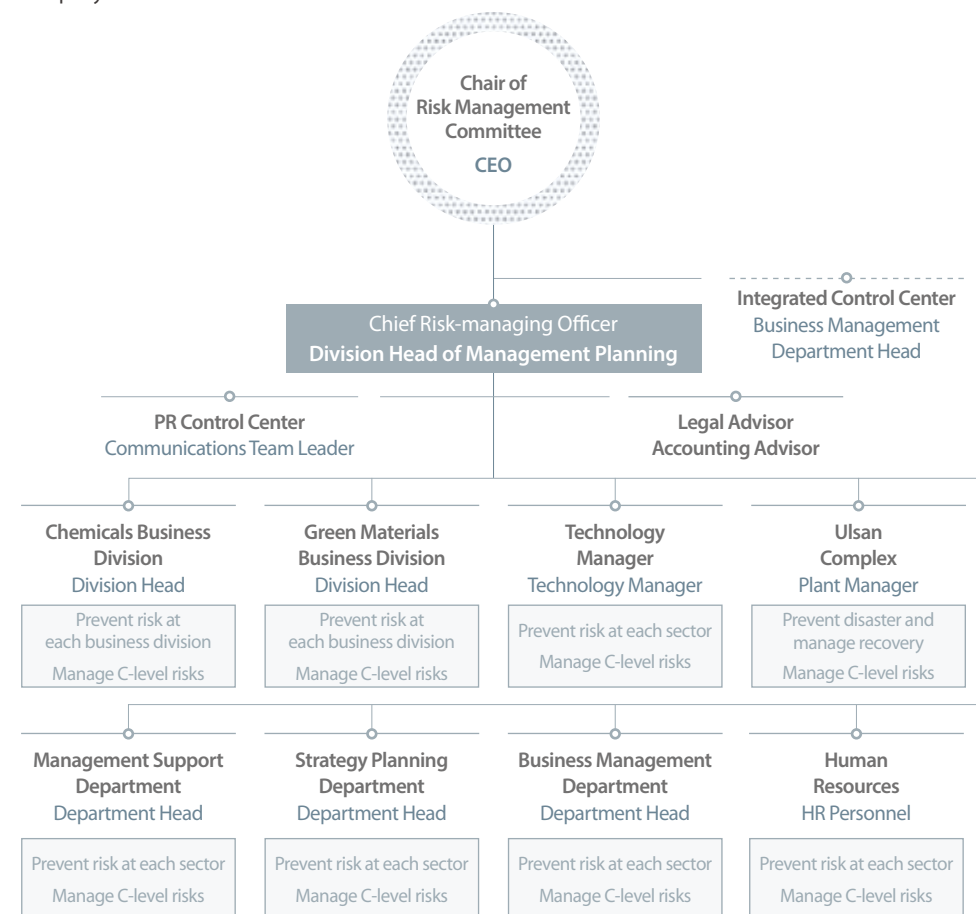
Risk Management

In the midst of the rapidly changing management environment, the importance of risk management focused on corporate environment, safety and external media is being highlighted. LFC, to recognize risks in advance and minimize damages from these, is operating a management system including the management system, organization, human resources, process and risk management regulations.



Risk Management Organization

To effectively conduct risk management at a company-wide level, LFC has composed a risk management organization. This management organization is responsible for making comprehensive judgments regarding risk issue and fostering organic responses between departments. In particular, a risk management committee is held to promptly and systematically respond to risk situations on the company level.



Risk Levels and Guidelines

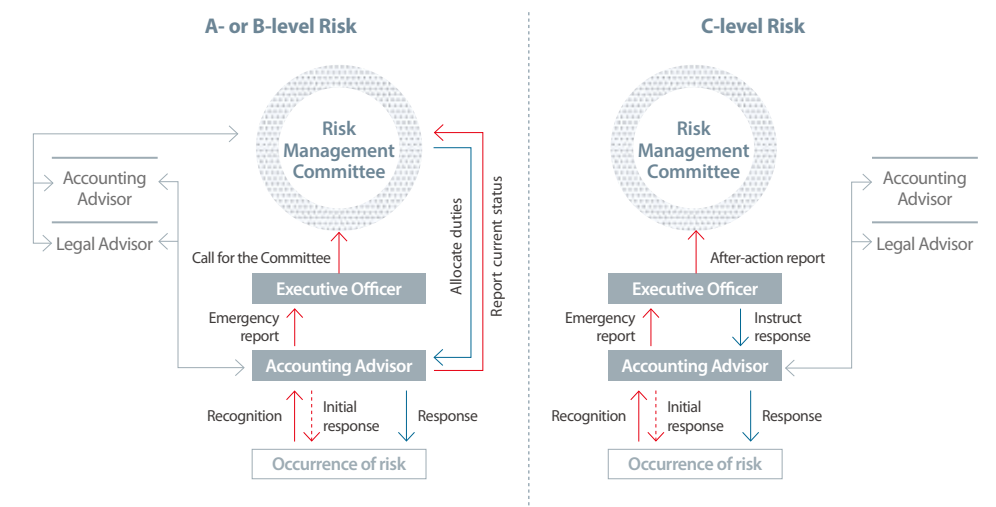
LFC has classified potential risk elements by level of severity. Also, the risk guideline is set up for responsive measures for employees whenever a risk issue is recognized.

Level	Criteria	Response
A	Situation in which critical influence is given to management activity	Minimize damage; recover corporate image; minimize legal issues; situation in which prompt recovery is essential
B	Situation in which social issues may occur due to an insufficient response	Prevent expansion to level A by promptly recovering and taking advance responses on legal issues
C	Situation that can be resolved by an initial response	Prevent expansion to level B by having the responding department promptly resolve the situation

Process of Responding to Risks

Operating the Risk Response Process

LFC is running a responsive process according to the level of the risk's severity. For levels A and B with severe risk levels, the management committee is convened for a company-wide response. For level C in which the level of severity is low, prompt responses are made under the control of the executive manager and reports are made to the follow up management committee.



Risk Response Process by Situation

LFC is operating a risk responsive process to minimize damage by establishing an advance management system for each risk situation, post responsive system, emergency response flow and detailed response guidelines. The 11 risk situations include environmental and safety incidents, fire and explosions, natural disasters, negative external image, patent disputes, product liability and compensation accident, error in management environment estimation, insolvent investment, bankruptcy of trade account and IT risk.

BUSINESS CASE

Risk management in accordance with the increasing of global financial volatility

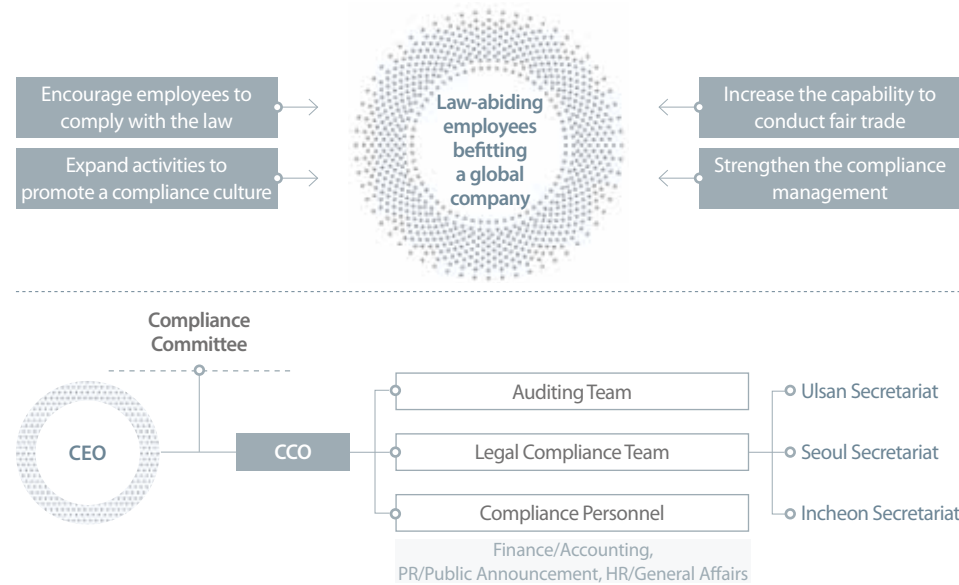
LFC has high proportion of exporting, over 50% of total sales, and therefore it manages risks from volatility of exchange rates and interest rates. As a response to volatility of exchange rates, we set internal standards, monitor foreign currency, and report to the management for any issues. We minimize balances of Euro (EUR) and Japanese Yen (JPY) by buying or selling them daily, and limit balance of US dollars (USD) to USD 5 million. Moreover, we minimize treasury stock to respond to volatility of interest rates, and we own fixed rated treasury stock amount to KRW 300 billion.

Ethics Management

Advanced Compliance Management

Compliance Management System

In order to create a fair and transparent corporate culture, LFC is helping employees to make a law abiding consciousness a daily practice. For this purpose, we are improving the law abiding consciousness, reinforcing the expansion of the law abiding culture and reinforcing the capability to conduct fair trade and law compliance management.



Major Compliance Activities

Activities to Promote a Compliance Culture

In order to improve employees' compliance with the law, LFC is conducting a self-inspection by duty per department, a company-wide survey on law compliance, and a quiz event through the internal communication portal. Furthermore, incentives are granted to employees who actively participate. Discussions between compliance managers by sector are held to induce the self-awareness and interest of employees on company related laws.

Encouraging Employees to Comply with the Law

On April 25, 2015, in commemoration of Law Day, the compliance management message containing the CEO's will for law compliance and guidelines were posted on company's website and communication portal and sent company-wide via email to solidify the will for the law compliance management. Also, through basic compliance training, the law-compliance consciousness of employees has been inspired regarding fair trading, copyright and personal information protection. Law compliance training is conducted for all employees annually and to experienced employees and new employees regularly to improve the law-compliance consciousness as members of LFC. In 2013, four corruption cases were found and 100% disciplinary actions were taken according to regulations, and no corruption case has been found since then.

Strengthening the Compliance Management

For high CP risk departments such as sales department and contract related departments, compliance inspections are conducted twice a year and the results are reported to the managing board to raise the awareness and make corrections at the right time. Also, after each inspection, the company manages the implementation management for improvement measures thoroughly. Meanwhile, after the company joined the LOTTE Group in 2016, we have developed activities such as the management on the internal transaction disclosure and the inspection on the disclosure system to meet the fair trading direction of the group.

Ethics Management Duties

Duty	Relevant Team
Internal transactions	Financial Accounting Team
Collusion	Legal Compliance Team
Subcontracting	Shared Growth Management Part
Public disclosures	Business Management Team

Percentage of staff completing anti-corruption training

100%



Compliance trainings

Online Whistleblowing System

In order to identify any issues related to unfair business practices, unethical matters employees and business partners, we operate an online whistleblowing system called 'Online Sinmungo' on our official website. Through the system, we gather reports regarding employees' embezzlement, unfair business practices, bribery, equity participation in unlisted companies, double employment, and other violations to the code of ethics. The reports can also be filed through e-mails, telephone, fax etc.

Fair Trading System

In order to solidify a transparent corporate culture, we are selecting individuals in charge of compliance by department, with a focus on the legal compliance team. The legal compliance team is the supervising department for all work related to fair trade. The process is operated in such a way that all matters related to fair trade undergo confirmation by the compliance management team. In terms of purchase requests and general transaction contracts, only the forms (both Korean and English versions) that have been examined and confirmed by the compliance management team may be used. In addition, all contracts are given a final examination and confirmation by the legal compliance team after being written. This process, focused on the compliance management team, not only ensures that business is conducted in line with fair trade from a specialized, company-wide perspective, it also enables the discovery of related risks through information sharing between business sites.

Compliance Program for Fair Trading

The company introduced the compliance program (CP) for fair trading in 2006 and has made an effort to prevent unfair transactions. As part of such effort, the CP handbook has been made and distributed as work manual, and regular training is being conducted for worksite departments regarding amendments in related acts. Also, for major business departments, internal diagnosis is being conducted. The company has the internal system that can prevent and inspect the potential of breaching fair trade act after the prior review by the internal fair trading expert on overall businesses including new businesses, sales and purchasing. Furthermore, to supervise the monitoring on the compliance of fair trade act, a Chief Compliance Officer (COO) is appointed to report the annual operation results to the BOD. Also, activities regarding CP are expanded to our subsidiaries. As a result from these efforts, LFC has neither breached the fair trade act nor been fined in recent three years including 2015.

Increasing the Capability to Conduct Fair Trade

To reinforce the capability to conduct fair trade, we are carrying out a systematic CP training for departments of high risk and by duty. By duty, we are carrying out CP compliance education to executive directors at least once semi-annually, contract education to contract managers at least once every year, and business confidentiality protection education to researchers at least twice a year. Also, manager education for high risk departments are being carried out including for the sales sector, purchasing team, material team, personal information handlers and compliance sheriffs as well as a special training for overseas corporations and subsidiaries. Along with these, to reinforce the competency of compliance managers, after the completion of training at fair competition union, trainees will acquire the compliance expert qualification.

LFC COMPLIANCE MANAGEMENT MESSAGE

LFC promises the following in order to become a world-class specialty chemical company that is trusted and respected by all on the foundation of its top-level compliance consciousness required by global standards.

- First,** LFC is striving to become a company that spreads a positive energy enabling everyone to grow together.
- Second,** if breaching of law is discovered or suspected, we will strictly comply with the law referring to the manuals and other handbooks. In case of question, we will clearly understand and comply with the law after the prior consultation with our Law Compliance Management Team.
- Third,** all employees will actively cooperate with the company's activities regarding the law compliance including the compliance program.
- Fourth,** employees who breach the above policies or conducts illegal actions shall strictly face sanctions according to company regulations.

Sustainability Management System

LFC intends to pursue a balanced growth in economic, environmental, and social sectors in order to leap forward to a sustainable company. Thus, we set goals for becoming a sustainability leader by actively communicating with our stakeholders, and strengthen competency throughout the company.

Sustainability Management Process

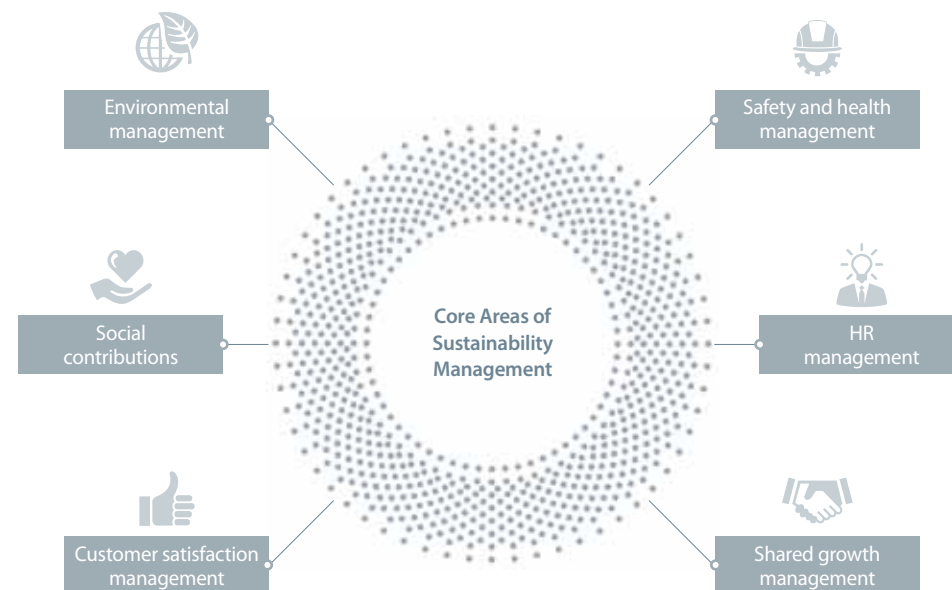
General Issues of Sustainability Management

By analyzing the international standards and guidelines for sustainability management, we have derived the major management areas and classified them by issue.



Core Areas of Sustainability Management

We set the six core areas covering economic, social and environmental areas for sustainability management. We plan to manage our performance and improve the indicators in the six areas.



Stakeholder Engagement

LFC has defined its stakeholder group: shareholders and investors, local community, business partners, employees, customers, and government and public institutions. We are operating various communication channels to collect opinions and expectations of the stakeholders and to reflect them into our sustainability management activities. Therefore, we aim to build consensus of and collaborative relationship with stakeholders on the sustainability issues.

Stakeholder	Communication Channels	Expectations
Shareholders and Investors	Public disclosures	
	Annual general meeting	Improving profitability
	IR activities (meetings and conferences, etc.)	Continuous growth
	Website (investment information, business status)	Management transparency
Local Community	Sustainability management survey	Stable governance
	Social contribution campaign	
	Support for sisterhood villages	Expanding social contribution
	Environmental clean-ups	Minimizing environmental impacts
Business Partners	Social group-specific contributions	Continuous communication
	Sustainability management survey	Investment and job creations
	Weekly safety meeting	
	Safety Development Committee	Fair trade compliance
Employees	Business partners discussion	Technological support
	Sustainability management survey	Financial support
	Communication portal	
	Labor-Management Committee	Respecting human rights
Customers	Regular discussions	Competency building
	Employee satisfaction survey	Fair evaluation and compensation
	Sustainability management survey	Sound corporate culture
	Visits and communication (ad-hoc)	High quality products and services
Government and Public Institutions	VOC response process	Stable supply capability
	Customer satisfaction survey	Prompt VOC response
	Company website	Customer information protection
	Sustainability management survey	
Government and Public Institutions	Inspection by related institutions (safety and environment, etc.)	Law compliance
	Public hearing	Tax payment
	Committee	Cooperation with government policy
	Sustainability management survey	Opinions for establishing policy

Materiality Assessment

Materiality Assessment Process

LFC conducted the Materiality Assessment in accordance with the 'stakeholder inclusiveness', 'sustainability context', 'materiality', and 'completeness' of the reporting principles of the Global Reporting Initiative (GRI) Guidelines. The Materiality Assessment was carried by evaluating stakeholder impact and business relevance on 30 issues derived from the nature of chemical industry and background of LFC. As a result of the assessment, 12 core issues were selected.



Issue Pooling

International standard analysis

Target GRI G4, ISO26000, ESG and DJSI questionnaire

Method Relevance analysis of key indicators and questionnaires

Media analysis

Target 613 articles from nationwide daily newspapers

Period January 1st – December 31st 2015

Global benchmarking

Target 8 companies including the LOTTE Group affiliates and competitors in chemical industry

Method Analyze sustainability reports and website content

Analysis of internal materials

Target New Year address of CEO, and management vision and strategy, etc.

Method Analyze relation with management direction and issue

RESULTS

International standard analysis

Sustainability management issues reflecting changes in global trends

Media analysis

Key issues exposed in the media: Enhancing corporate value through management innovation, Achieving stable management performance, Performing local social contribution activities

Global benchmarking

Key issues in the industry: Strengthening R&D capability, Climate change response, Building employee competency

Internal data analysis

Key issues related to management trajectory: Reinforcing occupational safety and health activities, Expanding global market dominance

Surveys

Stakeholder survey

Period April 27th 2016 – May 9th 2016

Internal targets Employees

External targets Customers, business partners, local community, academia and experts

RESULTS

Top 5 internal issues

- Enhancing corporate value through management innovation
- Strengthening R&D and technological capabilities
- Establishing mid- to long-term strategy
- Expanding programs for employee competency building
- Establishing global standard of eco-friendly management system

Top 5 external issues

- Strengthening R&D and technological capabilities
- Greenhouse gases management
- Enhancing corporate value through management innovation
- Synergy creation with the LOTTE Group affiliates
- Pollutant discharge management (i.e. water quality, wastes, etc.)

Materiality Assessment

Business relevance

- Results of stakeholder survey
- Results of global benchmarking
- Results of internal data analysis

Stakeholder impact

- Results of stakeholder survey
- Results of international standard analysis
- Results of media analysis

Issue Selection and Sharing

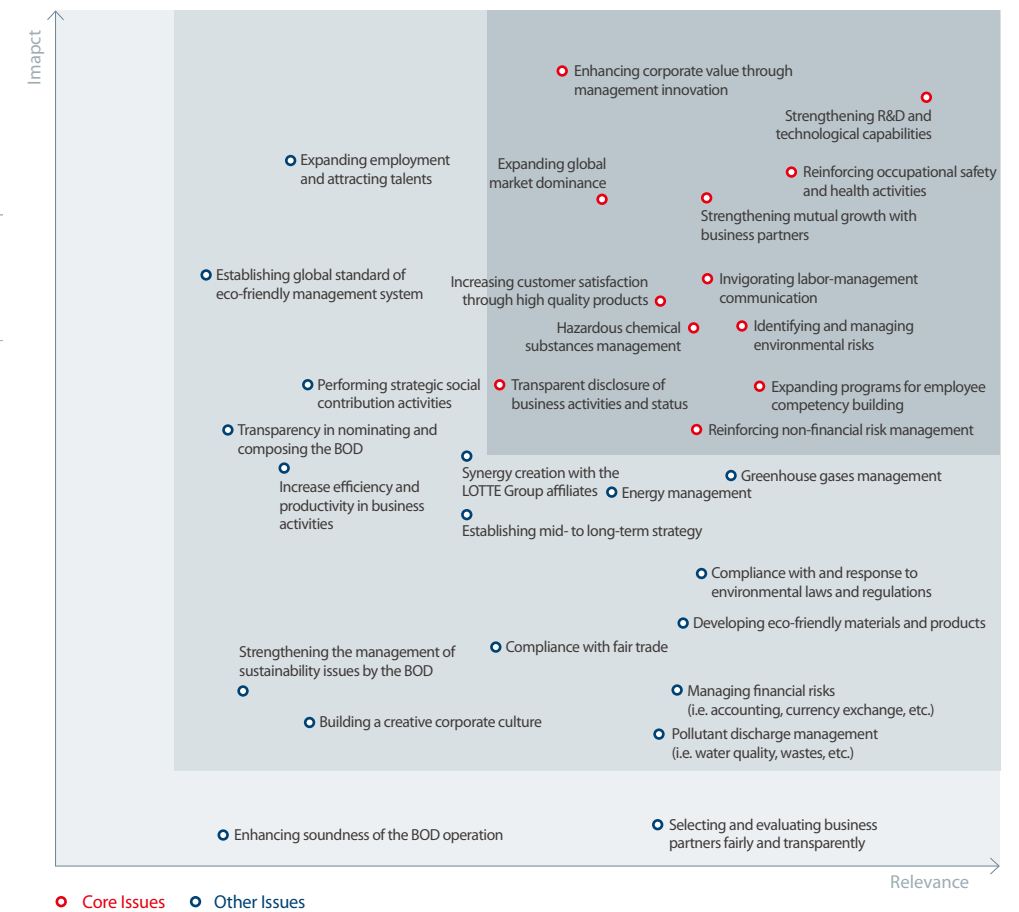
Core issue selection

12 core issues were derived from the results of the materiality assessment based on the business relevance and stakeholder impact.

Sharing of information related to core issues

The sustainability report was developed based on the core issues.

Materiality Assessment Results



Composition of Report with the Focus on Core Issues

Core Issues	G4 Aspect	Reported Content	Pages
Expanding global market dominance	Economic performance		
Strengthening R&D and technological capabilities	-		
Enhancing corporate value through management innovation	Economic performance	Obtaining differentiated competitiveness	P. 48-51
Transparent disclosure of business activities and status	-		
Reinforcing non-financial risk management	-		
Identifying and managing environmental risks	Overall		
Reinforcing occupational safety and health activities	Occupational health and safety	Optimizing environment and safety management	P. 36-43
Hazardous chemical substances management	Effluents and waste		
Invigorating labor-management communication	Labor-management relations	Building a creative corporate culture	P. 44-47
Expanding programs for employee competency building	Training and education		
Strengthening mutual growth with business partners	Procurement practices	Strengthening mutual growth	P. 52-55
Increasing customer satisfaction through high quality products	Product and service labeling	Creating customer values	P. 48-51

SUSTAINABILITY ISSUES

LOTTE Fine Chemical places a high priority on sustainability and has defined six core sustainability issues – environment, safety and health, employees, customer value, mutual growth, and local community – based on which we are shaping a sustainable future.

Environment

36

Safety and Health

40

Customer Value

48

Local Community

56

Facts & Figures

60

44

Employees

52

Mutual Growth

Environment



278.0

Sales of eco-friendly products
(Unit: KRW billion)

13.9

Environmental investment
(Unit: KRW billion)

BUSINESS RELEVANCE

With the increased global awareness of environmental issues including global warming, securing eco-friendly technology and products has become a mandatory condition for the survival and growth of a company. In 2015, companies are urged to comply with and respond to regulations related to climate change more actively, due to the full-scale implementation of the Emissions Trading Scheme and a new climate change system, the Paris Agreement. In addition, local residents and NGOs near the company's worksites are reinforcing the monitoring of water quality, emissions, and wastes discharged from the worksites. These issues demand efforts and response of the chemical industry to minimize environmental impact.

OUR APPROACH

LFC strives to minimize and environmental impacts under its climate change response strategy. We not only set annual investment goals for green management, but also execute and manage tasks for environmental improvement in our supply chain. Moreover, we also produce eco-friendly products as a measure to reduce environmental impacts.

BUSINESS CASE

Active participation in environmental policies and initiatives

ENGAGEMENT IN EMISSIONS TRADING SCHEME

The Emissions Trading Scheme, which has been implemented since January 2015 in Korea, is a system that the government allocates allowed emissions of greenhouse gases to companies, and it enables companies to purchase or sell emissions credits if needed. LFC, a target company for the scheme, has been participated in the Emissions Trading Scheme since 2012 as a pilot company, and over-achieved its allowed emissions during the year. Based on this experience, we set strategies for Emissions Trading Scheme response and energy reduction, and plan to actively engage in the scheme and the carbon market.

PARTICIPATION IN CDP

Carbon Disclosure Project (CDP) is a global project that provides precise corporate information to help global financial institutions and institute investors to precisely measure the 'climate change' related investment opportunities or risks to ultimately reflect climate change related investment risks on portfolio more systematically. LFC has been participating in CDP survey every year since 2011.

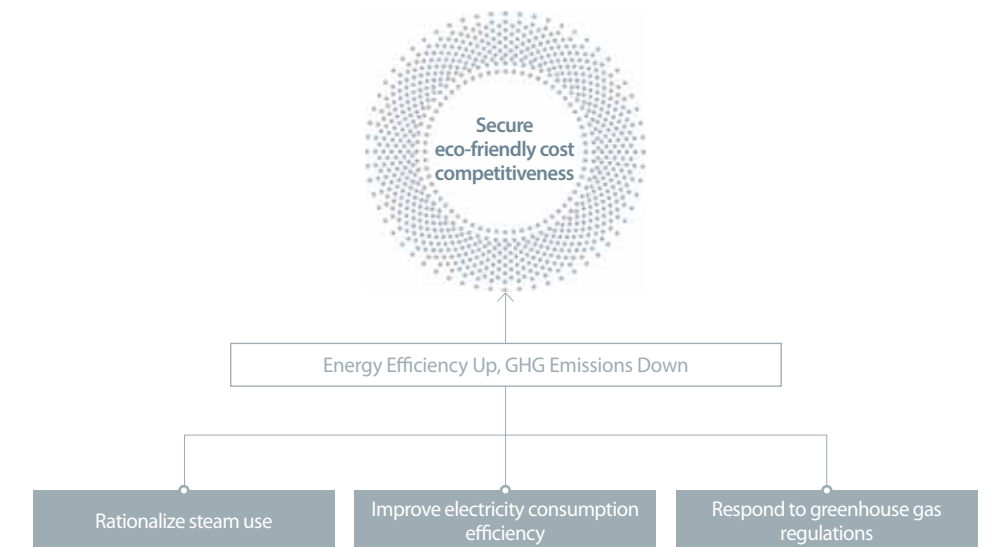
Amount of Green Purchasing in 2015

2.6 KRW billion

Climate Change Response

Climate Change Response Strategy

LFC is fulfilling environmental responsibility and securing cost competitiveness by improving efficiency of energy use and reducing GHG emissions, thereby increasing its sustainability.



Efforts to Reduce GHG Emissions and Energy Use

Greenhouse Gas Reduction Strategic Meeting

A taskforce (TF) for GHG reduction is run weekly at the Ulsan Complex. The TF identifies, reviews, and executes tasks for reducing uses of electricity and steam. Also, reduction goals are allocated by team and department. The management innovation team is managing the KPI and each team is conducting discussion and review on raw cost reduction task by holding 'Innovation Day' every Wednesday. Moreover, through the collaboration with external professional institutions, we keep discovering and practicing tasks and improvements for the reduction of greenhouse gas emission.

Total GHG emissions and per unit emissions



Reduction of Energy Use through Process Improvement, New Facility and Green Purchasing

According to the Energy Use Rationalization Act, the business site of LFC has been designated as an energy-guzzling business site in 2016, and scheduled for energy diagnosis. Accordingly, we are not only complying with the legal specifications, but also improving process and introducing high efficiency facilities to create sustainable and eco-friendly business site. In addition, we are consistently conducting green purchases such as LED lamps and low electricity electrodes to reduce energy consumption.

Activities to improve energy efficiency of processing and facility

Air Pollution Management

LFC has implemented an active investment in air pollution prevention facilities such as SCR, SNCR and desulfurization facility to focus on the management in the air pollution substance. The company has controlled the emission of air pollution substance lower than the company standard, and has installed TSM to major outlets to check the concentration of discharged pollutants in real time. Also, to reduce bad odor and VOC, the company is operating the Flare Stack (RTO) and is conducting regular inspections for bad odor to make 'Odor Zero' plants.

In 2015, the Leak Detection And Repair (LDAR) system has been established for scattering discharge facility management targeting total 10 types including eight specific air pollutants. The accident risk has been minimized as the inventory for scattering discharge facilities of management target substances was established through LDAR system and the repair and improvement of facilities were possible at the right time through real time monitoring. The discharged amount for pollution substance is calculated objectively, and the automatic gauge for chimney is digitized to raise the reliability of pollution substance management.

Water Quality Management

Wastewater discharged from Ulsan Complex is initially processed at the wastewater processing facility, and is secondarily processed at the Yongyeon sewage terminal treatment plant operated by Ulsan-si. A reduction goal by major wastewater source is set up and the process improvement for recycling wastewater is implemented to reduce the amount of generated wastewater.

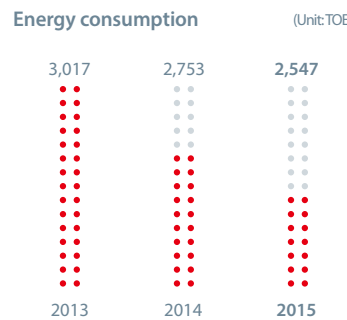
On the other hand, to prevent emergency environmental accidents, emergency shields are installed on the rain waterways, and in the future, wastewater from physically processed sophisticated facilities will be recycled as coolant and firefighting water to reduce the amount of wastewater.

Waste Management

LFC is managing all processes of generated wastes through its online system, and is planning to reduce the fundamental amount of wastes by setting up discharge plan. As of 2015, the recycling rate of wastes was 38%.

BUSINESS CASE

Reduction of energy consumption through cost innovation



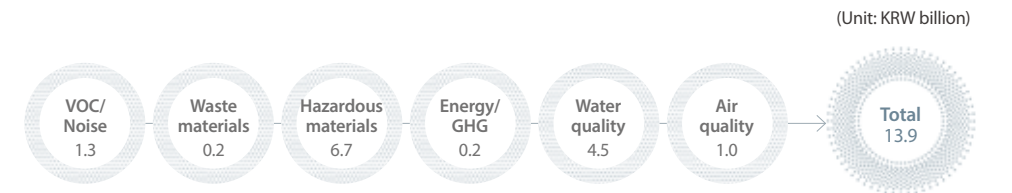
Incheon Plant is consistently reducing energy consumption through raw cost innovation tasks after establishing additional facilities for AnyCoat® production. Air conditioner fan, coolant circulation pump and high efficiency inverter had been installed, re-evaporated steam had been collected and recycled, and lightings in the business site had been replaced by LED lamps. Through this, the energy consumption was reduced from 3,017 TOE in 2013 to 2,547 TOE in 2015, showing approximately 8% reduction in energy consumption annually on average. In the future, we will continue our efforts in discovering and implementing tasks to be born again as an eco-friendly business sites.

Expanding Environmental Investment

We are expanding the environmental investments consistently focused on production sites by plants. From 2011 to 2015, total investment amounted to approximately KRW 100 billion, and the investment proportion in environment to sales amount is 1.7%.

In 2015, we invested total KRW 13.9 billion in 28 cases of replacement of aged facilities and tubes, preparation to leakage of rainwater, reinforcement of accident monitoring and prevention facilities and supplementation in wastewater processing facilities, which was increased by 170% from the previous year.

Environmental investment



Environmental Management System Certification

Ulsan Complex, after acquiring the environmental management system in 1996, has consistently established and developed the environmental management system. As The Ministry of Environment designated the Ulsan Complex as a green company in 2005, all employees are creating eco-friendly business site based on the will of environmental management. The operation and implementation of management system is being appraised by the independent and post external screening every year. We are making consistent efforts to satisfy domestic and overseas environmental trends and customers' demand.



Green Corporation Certificate



Environmental Management System Certificate

Eco-friendly Products

LFC is developing and selling materials and products that can minimize environmental influence in diverse areas such as industries, medicine, and real life. Our eco-friendly materials and products include Cellulose series products, EUROX® and bio-degradable plastic.

Sales of eco-friendly products



* Cellulose derivatives + EUROX® + bio-degradable plastics

CELLULOSE DERIVATIVES Cellulose derivative products with a raw material of cellulose obtained from wood and cotton include MECELLOSE® and HECELLOSE™ for industrial use, and AnyCoat® and AnyAddy® for food and medical use. Cellulose is an insoluble natural high molecule with 30-65% crystallinity through the hydrogen bonding between molecules.

EUROX® EUROX® is an eco-friendly product used to eliminate nitrogen oxides (NOx), an air pollutant discharged from diesel vehicles. This is a catalytic reducing agent used in Selective Catalytic Reduction (SCR) system to reduce the vehicle emissions according to the Clean Air Conservation Act.

BIO-DEGRADABLE PLASTICS (EnPol) EnPol, the bio-degradable resin brand by LFC, maintains the same property as universal non-biodegradable plastic during its use, but when it is disposed or thrown away in natural state, it is completely decomposed into water and carbon dioxide by microorganisms such as bacteria, fungus and birds existed in the natural ecosystem.

Safety and Health

14,652

Safety training
(Unit: Hour)

6,763

Investment in hazardous
chemical substances
management
(Unit: KRW million)

BUSINESS RELEVANCE

After the repeated safety accidents in the past few years, the government has presented the safety as the major governmental task and has reinforced safety and health policies. Also, in 2015, the government has strengthened regulations by the implementation of the Chemicals Control Act and the Act on Registration and Evaluation, etc. of Chemicals and strengthened the monitoring by local communities and civil groups. In particular, chemical industry that LFC runs, may cause massive risk to the business site as well as the local communities nearby due to leakage of hazardous chemicals in the event of critical accidents, it requires a preemptive control in view of preventive measures.

OUR APPROACH

LFC is developing activities to respond to safety and health issues preemptively and actively. Around the safety and disaster prevention team in the safety quality center, the Safety Golden Time has been introduced as a new culture that arranges the work site neatly and eliminates irrational elements for the soundness of safety and health, and efforts are being made to make a pleasant and safety work site. In addition, a consensus is formed on the importance of safety and health management by the company, all employees, and partners, and a strategy is established and promoted for responding to safety and health issues.

Strategy and Organization for Safety and Health

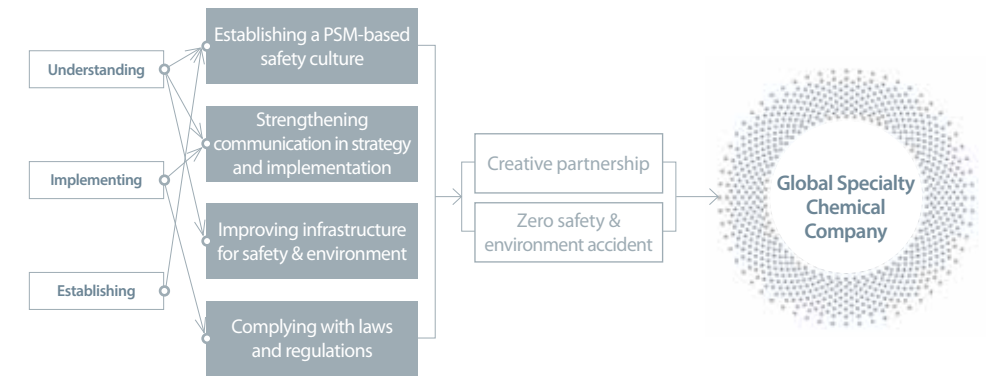
LFC has established a sustainable development plan for establishing a human-respect and eco-friendly production system to fulfill the management ideology of the company and to target 'zero environmental negligence accident' based on the field environmental safety management system. In 2015, it has established 'the accomplishment of three no business site without disaster, pollution, and disease' as a vision.

Safety and Health Organization

To reinforce and control the safety and health management system continuously, the company is operating the safety quality center as a separate organization and the safety management team under this center is managing the general safety and health works of business sites.

Safety and Health Strategy

As for the cornerstone to advance to a global specialty chemical company, zero safety and health accident was set up as a goal, and to implement this, practical strategies were set up such as the settlement of PSM safety culture, the reinforcement of communication in strategy and implementation, the improvement in safety and health infrastructure and the strict law compliance. Also, under the precise understanding in the strategy, the company holds weekly PSM training and engineering conference as part of our consistent efforts to settle a safety culture.



Safety training



Safety inspection

Safety and Health Culture

Establishing a Safety Culture

LFC is carrying out regular training sessions and conferences for employees and partners stationed in the business sites. Through these, the consensus on safety is formed and a safety first culture is established to prevent human errors. In addition, to all employees, the company proceeds with a regular safety training twice a month by setting themes to discuss safety related major issues.

Safety Inspection Activities

LFC is conducting regular safety inspections to settle a process safety management culture. The company carries out a daily inspection activity, the Safety Golden Time, within the first hours after reporting duty when safety accidents occur most frequently, to discover and improve unstable state and actions in work sites. Also, the production department, designating the 'Irrationality Good Bye Day' on every Wednesday, proceeds with activities that inspects the piping directly, and improves hose connections, valve operation errors and nozzle cap installation status, and shares on internal notice board. Besides this, activities include the quarterly safety inspection, safety inspections and rounds with CEOs of partners, and duty inspections on supervisors.

Strengthening Hazardous Chemical Substances Management

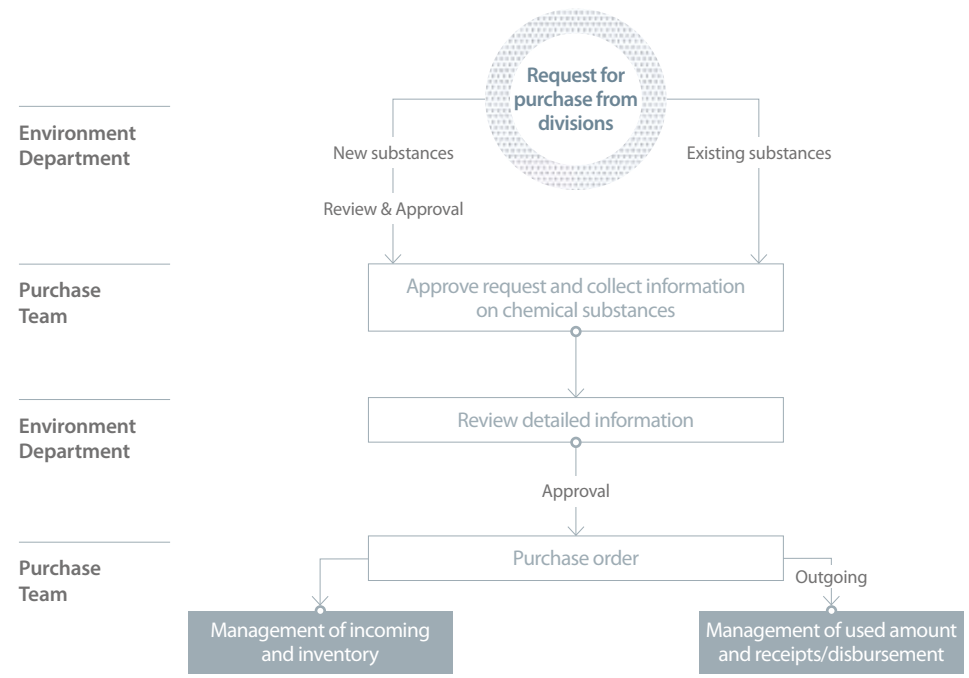
The Chemicals Control Act and the Act on Registration and Evaluation, etc. of Chemicals enforced from 2015 require more strict management of chemical substances by companies. In order to comply with the laws above, LFC has improved the chemical substance management process as a part of its preemptive measures.

Establishing Management Process System

LFC is collecting, controlling, and strictly managing all chemical substances produced, shipped in and out from small reagents to products. In particular, the company has re-established the relevant systems for thorough management of hazardous chemical substances, and to improve the work efficiency through the systematic management of chemical substance information, the Chemical Management System (CMS) has been re-established.

Chemical Substances Management Process

When purchase requests are made by departments using chemicals such as the production department, the purchase requests can only be made after the purchase team checks the registration and review history of existing substances. Safety environment department checks the basic information of chemical substances and the need for approvals, and if they do not meet the standard, purchase request cannot be made. When purchase request is made, the purchase team gains the chemical substance information including the supplier information and submits them to the safety environment department, which will then check the details of chemical substances. Only if they meet the standard in this process, the purchase order can be made and the ship-in and inventory management of chemical substance can be done. When shipping out, the safety environment department manages the chemical substance usage, receipts, and disbursement, and reports the chemical substance analysis statistics and waste amount to the Ministry of Environment.



Safety Certification and Assurance at Worksites

LFC complies with the safety and health management system. Both Ulsan Complex and Incheon Plant have received the joint certification of KOSHA/OSHAS 18001. In 2015, LFC prepared the process safety report for establishing process safety material, process risk evaluation, safety operation plan and emergency measure plan as PSM target business site and submitted it to the Minister of Employment and Labor.

BUSINESS CASE

'Safety Golden Time' to make every day a safe day



"All employees at the Ulsan Complex perform intensive safety inspection for two hours every morning."

LFC Ulsan Complex performs the Safety Golden Time for two hours from 8 to 10 every morning. The company designates the Safety Golden Time because this is when the industrial disaster due to human errors takes place frequently. During the Safety Golden Time, all employees in the plant intensively inspect unstable states and actions in the work site. The company manages the inspection results online to make a safer work site every day.



Safety Environment and Health Management System Certificate

* LDAR: Leak Detection And Repair

A program to minimize the risk of leakage by intensively managing and repairing all potential areas with the leakage of hazardous substances in facilities such as connection of piping



'Do Dream' counseling center



Fitness center at the Ulsan Complex

Preventing Leakage Accident

To prevent chemical substance accidents in advance, aged facilities and piping are regularly replaced, and in preparation for leakage outside the plant by rain, the accident monitoring and disaster prevention facility have been reinforced. Also, the LDAR^{*} system has been established to manage specific air pollutants and scattering and discharging of harmful chemical materials.

Investment in hazardous chemical substances management



Employee Health Management

'Do Dream' Counseling Center for Great Work Place

To enhance mental health of employees, the 'psychology consultation room' is operated. A professional psychology consultant is stationed to resolve personal hardships of employees through mental and psychological health consultation, psychological tests, corporate psychological consulting and meditation lectures, and to provide help to mental health of employees to enable stable corporate life. 'Do Dream' is open to all employees at all times, and approaches employees first by operating 900 consultations and programs annually on average and support mental health of employees in close distance.

Comprehensive Medical Check-ups

Every year, regular general (comprehensive) medical checks and special checks are conducted for employees to assure mental and physical health of employees. Also, by providing medical costs and accident insurance, active supports are given so that employees and their families can manage their health and live healthy lives without concerns for diseases and accidents.

Fitness Center and Support for Club Activities

Fitness centers are operated in all business sites, and internal club activities are actively supported to encourage healthy hobbies of employees provide opportunities of physical work outs.

Stakeholder Interview



Yoon-won Hwang
Psychology Counsellor, Do Dream Counseling Center

I am happy to see people relieved from their stress after counseling.

People with psychological issues find new meaning and directions in their life when resolving the issues. 'Do Dream' counseling offers consultation in various subjects for employees as well as their families from ordinary hardships such as work stress to disputes within families, disputes with spouses and communication with children. Also, we provide an opportunity to understand each other's differences through personal character tests for departments as well as personal consultations to break the ice for better communication.

* 'Do Dream' is pronounced same Korean word which means 'knocking a door'.

Employees

124

Training expense per employee
(Unit: KRW 10,000)

72

Training hours per employee
(Unit: Hour)

BUSINESS RELEVANCE

Due to intensifying global management in recent years, the interest in corporate culture of each company has increased and corporate culture is being proposed as a prerequisite condition for sustainability management of a company. Likewise, corporate culture is a unique identity and a fundamental competitiveness of a company that cannot be easily imitated by other companies. Also, in the midst of unpredictable market situation and rapid change in new technologies and trends, talented people and capability reinforcement are highlighted as important elements to enhance the corporate competitiveness. In particular, the corporate identity establishment and sharing of sustainable vision for internal employees who have experienced important management change such as business sell-off and merger & acquisition are extremely important.

OUR APPROACH

In the process of joining the LOTTE Group since October 2015, the cooperation between labor and management is known as an exemplary case of reliable and open communication between members. Based on this reliable communication, LFC is accelerating its corporate change and innovation to 'leap up as a global specialty chemical company through creative corporate culture and innovative HR policies'. By establishing organizations and policies to maximize internal productivity and efficiency, we are responding to rapidly changing management environment, and we are focusing our efforts on reinforcing personnel competencies and corporate competitiveness through a training program to enhance technological and global competence.

Human Resources Management Strategy

We will focus our competencies to lead the global chemical market based on our technological abilities accumulated over a long history of over half centuries, excellent human resource, systematic system and creative partnership.

Employee Competency Development Program

For employees to comply with the basics and principles and process work more actively according to their ranks and situations, the value, leadership and duty trainings are conducted. Moreover, various training programs for reinforcing global competencies and innovative competencies are being offered.

Value/Rank Training

Through the basic attitudes expected of all employees in common, corporate core value training, corruption prevention and sexual harassment prevention training sessions, the basic competencies expected of employees of LFC are reinforced. Also, through training sessions by rank such as new executives, new managers and new employees, we are supporting employees to fluently fulfill their responsibilities in their own ranks.

Leadership/Core Talent Training

To establish R&R as leaders, we are operating Leaders Summit (for executives and directors of departments) and Innovation Camp (for all executives) by reinforcing leadership, innovative minds and teamwork. Also, to cultivate the next managers with macroscopic perspectives and strategic thinking, we are providing MBA courses in and out of Korea.

Global Competency Training

Through intensive language course for global competency of technical personnel, internal language courses through 1:1 coaching and external language course supports, global leaders with global business minds and competitiveness are being cultivated. Apart from these, overseas sojourning employees are cultivated and dispatched to widen up the understanding in different cultures and have global business competencies.

Job Skills Training

We offer commissioned training by the external experts and workshops at each business division in order to enhance expertise and competency of all job positions. Also, to have safety and manufacturing competitiveness and secure knowledge basis, systematic practical training technological academy is being held. In particular, to reinforce the expertise of engineers, the creative problem solving process called DoD (Do or Die) and the academic-industrial program called the 'Innovation Campus' are being operated in association with Ulsan National Institute of Science and Technology (UNITS) to consistently cultivate internal duty experts and reinforce mentor-mentee network with professional competency.

Fair Evaluation and Compensation

LFC has introduced cumulative annual salary policy and at the same time pays incentives to the top performance assessment rating every March to encourage maximum exhibition of individual competencies. Also, to create performances on the corporate level, the target incentive (TAI) and the performance incentive (OPI) are being operated semi-yearly and yearly respectively. Also, to match the individual goals with the company vision, the performance evaluation based on goal management policy is being performed, and competency evaluation is performed at the same time as 3D evaluation system that divides between the performance and competency.



BUSINESS CASE

'Light up your passion for innovation!' Innovation Camp



The Innovation Camp is a summit program to cultivate leadership and innovative minds, and to enhance pride and passion, of the executives. The camp is planned with the lectures of renowned outside lecturers and inside innovation leaders and experiential activities that are useful to develop competency for leadership. In 2015, the camp was implemented twice, under the theme of 'Light up your passion for innovation!', toward 203 executives. The participants have earned another passion to perform their jobs better.

Culture of Open Communication

CEO Discussions

The CEO discussion is held for employees on site to share management philosophy and hear hardships and opinions of employees. A place for forming a bond of sympathy and communicating between executive directors and employees is consistently operated to make mutual respect and communication as the corporate culture.



Internal online communication portal

Internal Online Communication Portal

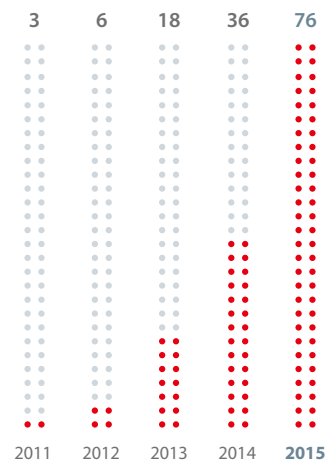
From the 'Soh-tong Insight', an online communication portal, the management and company news, useful information, family events and club activity notice are shared company-wide, and employee column contribution and internal notice boards are being operated for employees to autonomously participate in expressing their opinions and communicate. In particular, in the 'Soh-tong Avatar (anonymous notice board)' in which employees can communicate anonymously, they can frankly communicate with the company and resolve their hardships. Apart from these, the company representative SNS is being operated as part of the efforts to communicate with external customers and potential employees.

Thursday Forum

In Ulsan Complex, major executive directors are holding discussion session every Thursday to share field VOC and best practices of field operation. From this discussion, small VOCs in the field can be quickly resolved to contribute to enhancing work efficiency and satisfaction rate of employees. Also, corporate management knowhow is shared to make more mature communication culture.

Number of certified master-craftsmen

(Unit: Person)



Creating Great Work Place

Work-Life Balance

FLEXIBLE WORK POLICY Flexible work policy is being operated so that employees can select working hours according to their needs such as childcare and self-development. The company promotes performance by raising work efficiency through efficient working hours and employees can autonomously control working hours to raise work life balance and work satisfaction rate.

FAMILY DAY LFC has set up every Wednesday as 'Family Day' to encourage employees to leave workplaces at regular time. From this, we are creating a happy corporate culture loved by employees and their families.

ENCOURAGING STAFF TO TAKE TIME OFF To encourage use the refresh holidays of employees, we are concentrating on facilitating the use of annual leaves. For employees to actively use annual leaves, we have introduced sandwich holidays and selective holidays.

Stakeholder Interview



Jae-bong Hwang
Chief Mechanic, Chemical Production Team 2

The Ulsan Complex is filled with enthusiasm for learning.

Master certification is the highest certificate recognizing the ability in the production field. At first, it felt long and difficult. After 10 years in the safety environment department and another 7 years in the electronic material products, when I was in charge of new chlorine products production, I was a senior employee who know nothing.

In a chemical plant handling hazardous materials, I was disappointed by myself that I couldn't give a clear answer to any of the questions from juniors. And when I found out that the company provides KRW 1 million of tuition fee, 50% textbooks and test fees to employees preparing for the master mechanic certification, I realized that 'this was it' and I studies really hard. As a result of this, I gained one master mechanics certificate in 2013 and two in 2015. The best gain was the pride in my work. I want to thank my colleagues and the company who encouraged and supported me the most when I was studying.



Salon de Panorama in the Seoul Office

BUSINESS CASE

'Harmonic Collaboration of Labor-Management' for future growth of the company

The commitment of LFC's labor and management for supports and cooperation during the merger with the LOTTE Group is recognized as best practices among many companies. On 30 October 2015, after the announcement of selling off of Samsung Group shares such as Samsung SDI, the emergency planning committee led jointly by the CEO and labor union head announced on 3 November 2015 that it "understands that this M&A is a decision for select and concentration strategy" and promised active support and cooperation to M&A by saying that it "supports and welcomes this merger that will become an opportunity of leaping up as the global leading chemical company".

In the background to this creative partnership were the minds and confidence of company and labor that put the future of employees and company in the first place. A related person of emergency planning committee said that "Employees felt massive shock and lost feeling when M&A was announced", but promised to exercise creative partnership for the future of LFC by saying that "but we decided it is more important to grow the company based on a creative partnership, and we will do our best to make it grow further on the long term aspect by cultivating fine chemicals".

MOTHERHOOD PROTECTION POLICY In response to the governmental policy on low birth rate and to enhance the working conditions of female employees, various motherhood protection activities are being implemented. Maternity leave and childcare leave of pregnant or mothers are being actively encourages and the practical use of motherhood protection policies is increasing. Also, ample supports for safe labor are being provided such as reduced work hours and provision of medical check-ups. Also, five-day maternity leave (paid) is available not only to females but also to their spouses, and any disadvantage from discrimination, employment, wages and career path are eliminated so that female talents can exercise their abilities without having the related concerns.

ARENA OF CULTURE AND UNITY In Seoul office, a complex lounge called 'Salon de Panorama' is being operated so that employees can share creative ideas and seek refreshment during working hours. 'Salon Concert' is being held to offer various performances such as classical music and jazz, and a time to charge up motivation in enjoyment with colleagues is being offered from exhibitions and department parties. Apart from these, communication and unity are being encouraged between employees through movie days and baseball days.

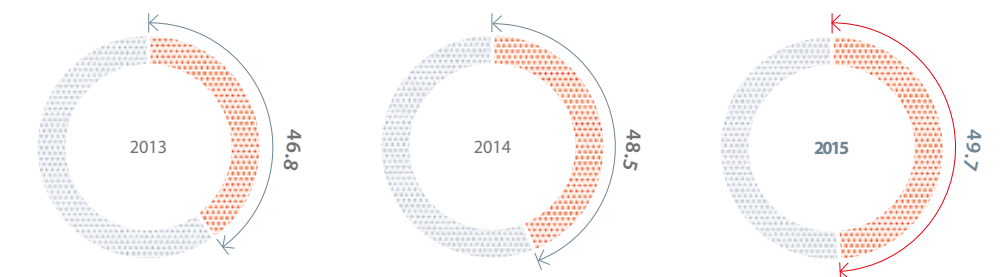
Collaborative Labor-Management Relations

Since its initiation in 1974, the labor union of LFC has built a 'creative partnership' between labor and management and has built up trust. Based on mutual confidence, the rational company labor culture of communication is being formed. Also, by announcing to reinforce global manufacturing competitiveness instead of opposing each other, the internal innovative competencies are being reinforced and acquisition of master mechanics is being focused on.

For close communication between labor and management, the company labor council is held, and daily agendas and hardships are being shared. Based on these trust and bond of sympathy, labor and management of LFC do not lose confidence from customers through mature decision making and cooperative responses even during the transfer of the company and successfully completed transfer with positive appraisal from media and market.

Percentage of employees covered by collective bargaining agreements

(Unit: %)



* (No. of people with labor union membership / No. of total employees) x 100

Employee Benefits & Welfare

Under the idea that the satisfaction and happiness of employees are the important elements of determining the future of the company, we pursue 'Great Company' through completion of 'Great Workplace'. For this, we are providing various employee benefits so that employees as well as their families can enjoy stable lives.

For children of employees, expenses for schooling and childcare are provided, and summer and winter camps are being operated. Also, comprehensive medical checks, housing stability loans, Chonsei fund loans and personal pensions to assure stable retirement are offered. Apart from these, we run condos and summer resorts, as well as offering various legal advices, as measures to improve job satisfaction of our employees.

Customer Value



BUSINESS RELEVANCE

Recently, the social awareness to safety and environmental effect is being raised, and the domestic and overseas regulations and customer demand are also being reinforced. To preemptively respond to these changes and be responsible to our products, strict management in all stages from securing raw materials to use and disposal of final products is needed. Also, the efforts to minimize elements of potential risks, active response to technological development needs of customers and consistent investment are needed.

OUR APPROACH

To enhance customer satisfaction on product quality, LFC is endeavoring to discover and improve any nonconforming elements in the products in advance. Based on our quality management system, we are conducting related activities such as managing manufacturing quality, reinforcing quality management of raw and subsidiary materials and conducting process audits. We are also operating a response system for voice of customers (VOC) to check and improve customer opinions. Moreover, to satisfy diversifying customer needs and secure future growth momentum, we are reinforcing R&D activities.

Quality Management System

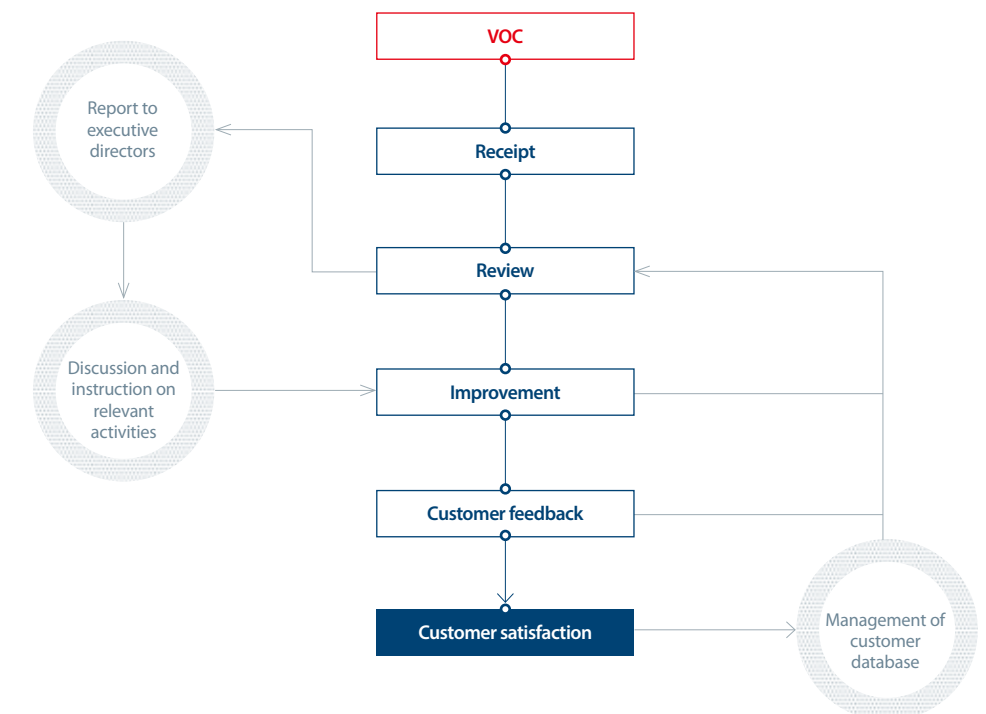
LFC is operating quality management system (ISO 9001) throughout its management activities from purchasing raw materials, production, testing, sales, shipment and follow up measures to secure 'Global Top-Tier quality Competitiveness'.

Global top-tier quality competitiveness



VOC Response System

LFC is promptly responding to customer complaints through its VOC response system in association of all sectors from sales, production to quality. On submission, the VOC is analyzed for the cause and proper improvement measures are taken. In 2015, total 19 VOCs and 394 customer inquiries were answered to contribute to improvement of customer satisfaction. In the future, we will prevent recurrence of VOC from error in management and make database on responsive measures to customer demands for more systematic management.





Manufacturing quality management

- ¹⁾ **Review:** Ingredients that can significantly influence product quality due to fluctuation of quality after purchasing
- ²⁾ **Replacement of certificate:** Ingredient without quality issue from review of over one year that has proved stable quality
- ³⁾ **Non-inspection:** Ingredient without problem in quality of incoming product for over two years or subsidiary material related to operating process



Quality Management Activities

Manufacturing Quality Management

LFC is analyzing the cause of nonconformity in case of malfunction of process or products, and operates inspection meeting attended by related departments such as production, quality and development to verify the fundamental cause and check the implementation result on the responsive measure. From these, we have accomplished rationalization of ECH plant specifications, verification of cause of turbidity of MECCELLOSE® and improvement, improvement of viscosity prediction accuracy of HECCELLOSE™, design change of toner (Rousseau) and improvement of durability. In 2016, we are planning to promote quality improvement tasks by department to maximize process efficiency and facilitate inspection meeting activities.

Classification	Chemicals	Green Materials	Toner
Management scope	Analyze cause of chronic non-compliance of process and product and make improvements – Operate non-compliance prevention process, discover fundamental cause, support establishment of responsive measures by production department, and check implementation result		
	Transfer mass production plant and operate change management – Verify fluctuation in quality of mass produced goods, and stabilize initial quality of new developed products		
Improvement case	Rationalize ECH plant specifications	Discover cause of turbidity of MECCELLOSE® and improve Improve accuracy of predicting viscosity of HECCELLOSE™	Change Rousseau design, improve durability
Inspection council	Production/quality council	Production/quality/development council	Weekly meeting of electronics and fine chemicals

Process Audit

To review responsive system for improving customer complaints and nonconformities, and check the implementation stats of quality assurance process, the process audit was conducted. Through the process audit, we have checked if process, inspection and operation processes related with production are effectively run, and inspected the reliability of products supplied to customers. Also, from these, we could establish the culture of working based on standards and processes to employees. In 2015, we have set up evaluation standards reflecting the product characteristics of total 14 products in each department and we are planning to conduct intensive improvements by selecting quarterly core themes based on this.

Quality Management of Raw and Subsidiary Materials

Quality management on raw and subsidiary materials that are targets of intensive management is reinforced to raise the quality satisfaction on products. Each business department is classifying and managing quality management methods via reviews ¹⁾ replacement of certificate ²⁾ and non-inspection ³⁾ to reinforce the quality management on major raw and subsidiary materials, chemical engineering drugs and catalysts. In 2015, 137 major raw and subsidiary materials, 158 chemicals and 48 catalysts were managed. In the future, we are planning to expand import inspection on raw and subsidiary materials that are targets of intensive management, and apply to new materials and supplier certification process to set up the quality verification system for raw ingredient and product in early stage.

Quality Management Performance and Future Direction

LFC has implemented various activities to secure quality competitiveness by establishing process, setting up quality assurance (QA) system and deriving defect improvement cases. Based on these, in 2016, we are planning to reinforce proactive quality management basis and improve quality competitiveness.

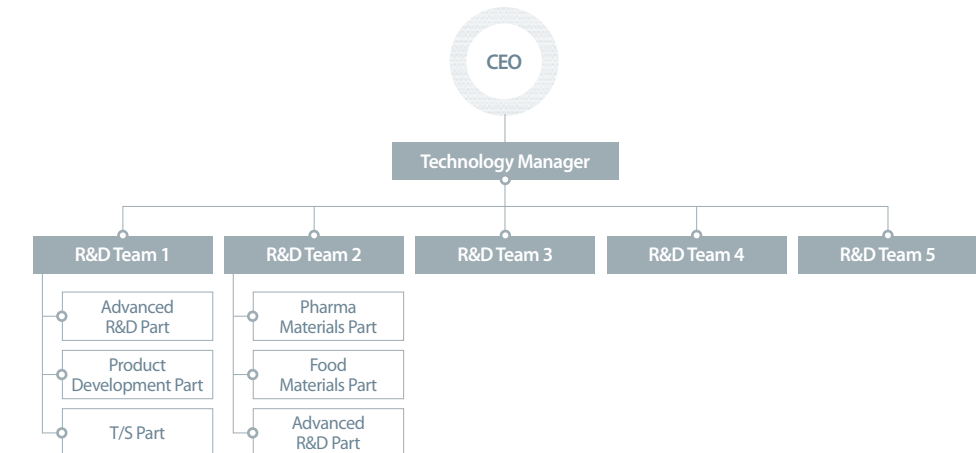


Laboratory of Development Team 1

R&D Center

Reorganization of R&D Center

To accomplish the vision of 'leaping up as global specialty chemical company', LFC has renovated the R&D organization for more active and efficient response to technological development needs. The R&D organization previously classified into development team or technology department under each department until 2015 was newly established as R&D Center directly under the CEO in 2016, and the development team and technology team by department were affiliated for more efficient customer technical support and R&D duties.



Status of R&D Center

As of March 2016, the R&D Center is composed of 52 personnel and professional researchers are conducting various researches led by team leader of each development team. The Development Team and 2 are divided into three parts collectively for allocation of detailed duties.

Classification	Roles and Tasks
R&D Manager	General managing of technologies (R&D and management)
R&D Team 1	Development of new specifications of industrial high molecular cellulose ether derivatives and technical support for reinforcing competitiveness
Advanced R&D Part	Research of new materials of high molecular cellulose; field support for HECCELLOSE™
Product Development Part	Development and production of new specifications of industrial high molecular cellulose ether derivatives; technical support for reinforcing quality competitiveness
T/S Part	Technical support for customer response of industrial high molecular cellulose ether derivatives
R&D Team 2	Technical research based on food materials, and development of applied technologies and products of medical materials; customer technical support
Pharma Materials Part	Development of applied product of high molecular cellulose ether derivatives for medical materials; customer technical support
Food Materials Part	Basic research of food material based on cellulose ether derivatives and property research of AnyAddy®
Advanced R&D Part	Expansion of purposes based on cellulose ether derivatives and process technical support
R&D Team 3	R&D of new products to expand purpose of bio-degradable polymers and technical support for production and customers
R&D Team 4	Discover and research new specialty chemicals and develop chemical process technology
R&D Team 5	Develop process technology for high molecular cellulose ether derivatives

Mutual Growth



BUSINESS RELEVANCE

Expectations regarding companies' social responsibility are growing and the scope of demand is expanding. Advanced global companies are expanding their management of issues such as unfair treatment, human rights, the environment and safety to include secondary and even tertiary partners. As of late, a variety of accidents and incidents in the chemistry industry have occurred both domestically and abroad, including those involving conflict minerals and humidifier sterilizers. The problems of partners have a direct impact upon companies, drawing greater scrutiny from consumers and governmental institutions.

OUR APPROACH

LOTTE Fine Chemical is pursuing mutual growth through co-existence and cooperation with partners from diverse aspects including technology and product quality. In addition, by providing the solutions that customers need in the midst of a difficult business environment, we are demonstrating our performance of increasing value. In the future, we will continue to actively promote our partners' social responsibility by offering financial and technical support. We intend to contribute to the growth of small and medium-sized enterprises (SMEs) by providing equal opportunities through fair and transparent processes in the selection and appraisal of partners.

Mutual Growth with Business Partners

Vision for Mutual Growth

To 'upgrade our business by collaborating with business partners', we are striving for sustainable mutual growth and the reduction of raw costs. In addition, we are communicating with partners in diverse ways and expanding our financial support for them.

VISION

Upgrade our business by collaborating with business partners

Purchasing

Status of Purchasing from Partners

In order to optimize the efficiency of transactions with partners, the purchase team and procurement team are undertaking transactions according to the types of items purchased. The purchasing team mainly purchases raw materials used to make products and the material team manages the purchase of items for other purposes such as utilities and packaging materials. As of 2015, transactions amounting to KRW 265.6 billion were carried out with 581 partners.

2016 Plan

PURCHASING – PROFIT CENTER 2.0 In 2015, through the Profit Center 1.0, we achieved a great reduction in raw costs. While the Profit Center 1.0 reduced raw costs by focusing on external elements including the discovery of new, low-cost companies, in 2016, we are planning to promote a more sophisticated Profit Center 2.0. It will focus on five core promotion strategies and reinforce cooperation with partners through the joint development of new grades to reduce raw costs as well as improve product quality and reduce total costs.

5 strategies for the Profit Center 2.0



Core tasks for the Profit Center 2.0

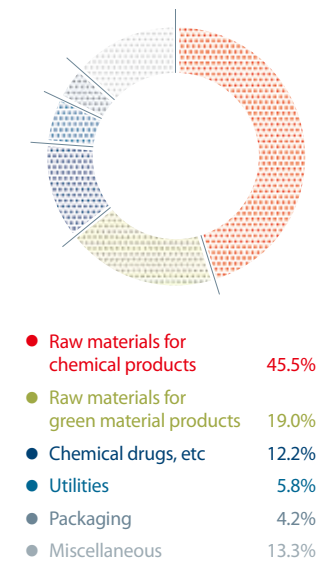
Classification	Contents
Raw materials	Joint development of new grades; localization; discover new companies
Facilities and equipment	Integrate equipment purchases; optimize specifications
Repair materials and packaging	Diversification and specification optimization; improve the management process for repair materials
Purchasing process innovations	Preemptive improvement of purchase processes for new expansions; optimize the purchasing cycle; integrate simple purchasing duties

Supporting Business Partners

Shared Growth Fund

We introduced the co-existence loan policy since 2015 in order to financially support our partners. In association with banks, preferential interest rates in comparison to general loans are provided to partners at amounts up to KRW 2 billion.

Detailed status of purchasing



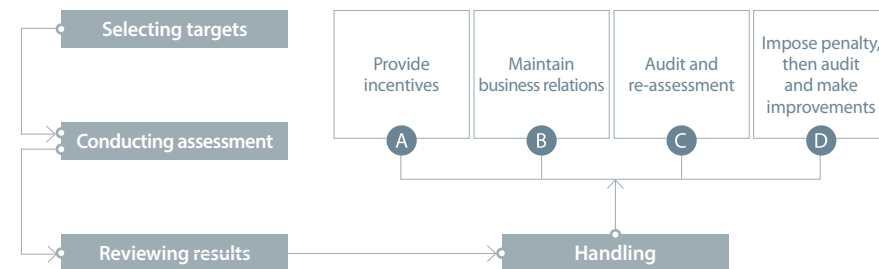
Cash Payment and Early Payment

We are making efforts to execute transactions with partners in a fair and prompt manner. We are settling transaction payments in cash only instead of promissory notes, and tax bills are closed twice a month to complete payments within 15 days. In addition, we are operating a policy of early payments to partners requiring urgent funds prior to the end of the year, beginning of the year and on national holidays.

Assessment of Purchase Partners

In order to have mutual development with partners, we are conducting purchasing assessments of partners with whom transactions for raw and subsidiary materials are made. By evaluating the raw and subsidiary material quality, delivery time and level of cooperation of partners, we are ensuring the quality of products and establishing reliability to contribute to solidified trading relations. Mandatory assessments are conducted for the top 20 partners in terms of transaction amounts, and other targets for assessment are determined through internal consultation. As a result, grades of A, B, C, D and E are given in which grade A partners are granted incentives and excellent partner awards, grade B partners retain the status quo and grade C partners supplement issues by conducting audits. For grade D partners, audits for weak points are conducted and improvement reports are held during regular exchange meetings to provide an opportunity of improvement. However, if the partner earns a grade of D for two consecutive evaluations, review on the dualization of the relevant item is carried out. In addition, any partner that accumulates three or more nonconformities due to accidents, process quality defects, import inspection defects or failure to notify about changes will be suspended from transactions as part of our strict management system for the raw and subsidiary materials supplied by our partners.

Purchasing assessment process



Quality Management and Technology Support

In order to support the quality improvement of partners, LOTTE Fine Chemical conducts quality audits on an annual basis. Technical support accompanied by an engineer from the production team is provided upon request, including the joint development of new grades.

Stakeholder Interview

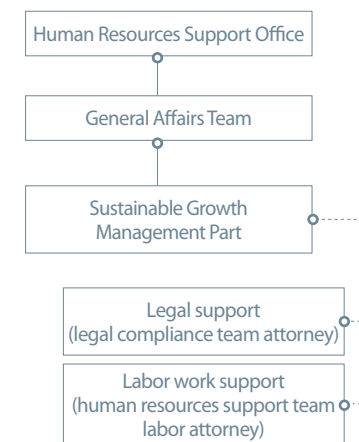


Yong-hyun Paik
CEO, Shinwoo Company (Internal partner)

“
We always strive to
grow together
based on mutual trust.
”

Shinwoo Company provides quality analysis and product packaging as an internal partner of LOTTE Fine Chemical. We hold weekly and monthly meetings with LOTTE Fine Chemical to prevent industrial accidents, and we have acquired the KOSHA18001 in 2014 and risk assessment certification in 2015 to provide safety consulting to LOTTE Fine Chemical.

For smooth communication, we are resolving difficulties in the early stages by frequently communicating with the shared growth management part which is the exclusive department for internal partners. We are focusing on our duties and growing together with LOTTE Fine Chemical by seeking support from partnership support programs such as those that offer labor advice and legal advice when needed.



Internal Business Partners

Organization to Manage Internal Business Partners

The co-existence management part, the exclusive organization for managing internal business partners supports partners and conducts preventive measures against breaches of laws in consignment transactions.

Briefing Sessions for Business Partners

To establish sustainable trading relations with partners based on reliability, we hold regular meetings to hear the voice of partners. Instead of top down notifications, through an environment of free communication, we collect opinions and actively reflect them in company management and partner transactions. In 2015, discussions regarding the management status were actively held. Also, to improve partners' level of management, we have benchmarked advanced domestic and overseas companies to apply the exemplary cases of other companies.

Incentive Policy for Internal Business Partners

To prevent the safety environment risks of partners and motivate employees, the partner incentive policy has been in operation since 2015. The safety environment management, duty management and manager evaluation are assessed twice a year, and detailed items are classified into safety environment, quality, management of human resources and labor relations. Performance incentives are given according to the assessment result, and partners with the lowest grades are given penalties. Also, unethical actions such as hiding accidents are strictly controlled. In 2015, six partners were evaluated and in the first half, four partners gained the top grade, and two partners gained an excellent grade. In the second half, five partners gained the top grade, and one partner gained a satisfactory grade. In 2016, we will continue to manage the safety of partners and spur the improvement of productivity through consistent assessments.

Support for the Improvement of Partners' HR System

LFC respects the employees of partners in the same way it does its own employees. In 2016, we are planning to support partners in improving retirement policies such as paid holidays, basic wage policies and peak wage policies of partners to improve employee satisfaction and loyalty.

Safety Management for Business Partners

Regular Meetings and Trainings for Partners

Due to the characteristics of the chemical industry, ensuring safety in the manufacturing process is of the highest importance. To manage the safety of partner employees, we hold weekly safety meetings and a monthly meeting of the safety development committee with partners. Through the development committee, the heads of plants, CEOs of partners and managers gather together to share major notifications, accident cases and activities for partner safety and health as well as to discuss occupational safety. We are also carrying out special safety training on unsafe behaviors and conditions, accident cases, forklift safety and risk assessment. In addition, we provide health training on the proper use of air respirators, how to perform CPR and briefing sessions on work environment measurement.

Strengthening the Risk Management of Consignment Transactions

We are carrying out a variety of activities to prevent any breaches of consignment related laws from unfair transactions during transactions with SMEs. In 2015, inspection and training on compliance in the consignment transaction process of employees was conducted two times, and the inspection of the internal consignment risk management was held four times a year.

Local Community



BUSINESS RELEVANCE

From the discharge of materials to accidents from negligence, the chemical industrial process has a large impact on the local community. Carrying out activities to minimize these negative influences and promote the local community's development are both highly important in implementing a company's social responsibility. Beyond monetary donations, there is a need for social contribution activities that are associated with specific businesses or contribute to the society. Thus, the overall management of the entire process of activities is growing in significance.

OUR APPROACH

We are practicing shared management to create values for growing with the local community. At the same time, we are leading eco-friendly changes in our society and communicating through various activities for creating change with children, who are the future. LFC, which has made efforts for the development of the local community since 1967, will continue to expand activities connected with our industry, with a focus on community service, and contribute to social values in order to earn the recognition and trust of the local community.

CSR milestones

- 1964 Korea Fertilizer Industries founded
- 1967 Employees and their families began contributing to the local community
- 1995 Implemented matching funds for social contribution projects; initiated autonomous fundraising by employees
- 1996 Established a company-wide Community Service Team
- 2006~ Established a Volunteer Center at each business site

Social Contribution System

Social Contribution Organization

In order to improve the efficiency and implementation of social contribution activities, we are operating a separate social volunteer group. We have autonomous volunteer centers in each business site focused around the social volunteer group, and a team of volunteers in each business site carries out social contribution activities. Teams of volunteers in business sites are engaging in activities in the areas of environmental protection, helping the local community, and helping children and women.



Social Contribution Fund

We are operating the social contribution fund in the love-raising fund and hopeful activity fund.

- Love-sharing Fund**
Love sharing fund (deducted from employee wages), donation of employee work proposal award
- Hopeful Activity Fund**
Matching grant that the company supports 1:1 for fund raised by employees

Major Activities in 2015

Performance with Positive Impacts

CONTINUED TO COMMUNICATE WITH LOCAL COMMUNITY LFC encourages the voluntary participation of employees and families through activities that reflect the needs of the local community and various themed projects, to create a healthy social contribution culture and social bonds of sympathy. Also, we are making efforts to improve civil awareness through corporate social contribution through projects associated with local residents, public offices, the media and NGOs.

ENCOURAGED COMMUNICATION FOR LABOR-MANAGEMENT HARMONY BASED ON CREATIVE PARTNERSHIP Social contribution activities created mutually by management and labor established co-existing relations between the two to form mutual confidence and affinity, and gives an opportunity to improve the corporate culture.

PURSUED COLLABORATION BY PROMOTING VOLUNTEER ACTIVITIES WITH FAMILY Through voluntary activity programs for employees' families, we are endeavoring to improve the awareness of the local community and welfare as well as understanding the harmony of families and the company.

Major Accolades in 2015

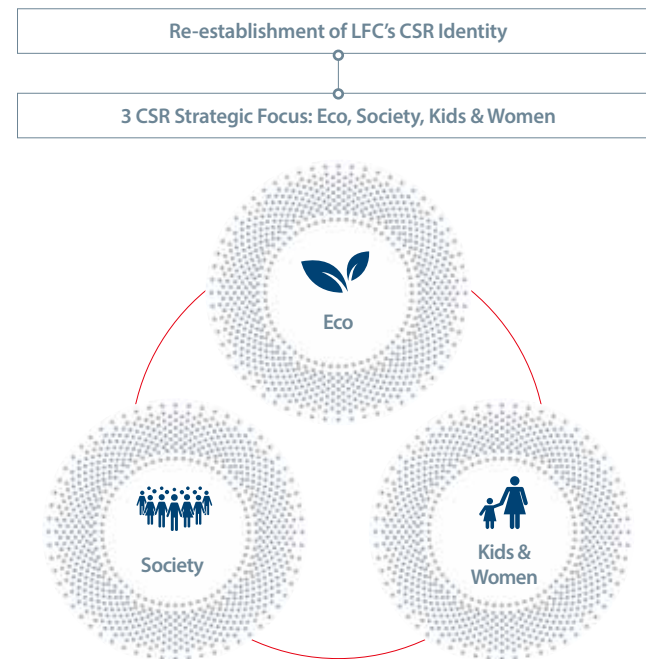
- 2015 SAMSUNG CSR AWARD AT THE PROGRAM CATEGORY (NOV. 24, 2015)**
We were awarded for our preemptive contribution in practicing the sharing culture for communication and bonds of sympathy with multicultural families.
- 2015 SHARING HAPPINESS PRIZE BY MINISTRY OF HEALTH AND WELFARE (NOV. 25, 2015)**
We were awarded for our social contribution activities for practicing sharing and loving neighbors.



2016 Plan

Strategic Direction

To supplement weaknesses based on the 2015 performance analysis in line with the LOTTE Group's strengthened CSR activities since it joined the LOTTE Group in 2016, LOTTE Fine Chemical is making it a target to 're-establish the LOTTE Fine Chemical CSR Identity'. We plan to focus on social contribution activities targeting the top three specialized strategies including the environment, local community, and children & women.



Major Social Contribution Activities

Eco

URBAN BOX FARMS CAMPAIGN

The urban box farms campaign met its seventh year of implementation in 2016 since it began in 2010 under the purpose of creating a sustainable eco-friendly city through the participation of families. Boxed vegetable gardens and blueberry seedlings were given to 4,000 Ulsan citizens, employees, families and students who participated in the campaign of making boxed vegetable gardens. Also, various events such as family booths, and urban agricultural education were carried out for citizens. Through this campaign, which is a practical activity for growing and cultivating vegetables that in themselves have the roles of an ecosystem, we shared the value of nature in an urban space.



Urban box farms campaign



Protection of bamboo shoots in the Sipridae Forest of the Taehwa River

ENVIRONMENTAL AND CULTURAL EVENT AT THE TAEHWA RIVER ECO PARK

LFC has been holding the environmental and cultural event at the Taehwa River Eco Park since 2005. Through this campaign, we have saved bamboo shoots in the Sipridae Forest of the Taehwa River and exterminated foreign plants in Taehwa River Eco Park.

OLD BIG TREE PROTECTION IN ULSAN

Old big trees are trees that aged 100 years or over and are living heritages of local community. Since 2006, we have been carrying out the cultivation of these large old-growth trees by searching for them in the Ulsan region with 'Ulsan Life Forest,' which is an environmental group that composts them and observes their growth states.



'Love House' to improve living conditions of low-income family



Volunteer activities to repair houses in sisterhood villages



Sponsorship of 'Swings', a baseball club for children from multi-cultural families

Society

YEAR-END GOOD NEIGHBOR CAMPAIGN

We have begun the year-end love sharing activity for local neglected groups since 1996. In 2015, a total of 1,275 employees participated to provide meals to senior citizens that live alone, help bathe children at childcare centers, make year-end cakes and carry coal briquettes.

'LOVE HOUSE' TO IMPROVE LIVING CONDITIONS OF LOW-INCOME FAMILY

We are carrying out the activity of selecting low income families living in poor housing environments and improving them into pleasant and safe homes. Our employees are volunteering to paper the walls, renovate the kitchens and repair electricity systems.

SUPPORT FOR VILLAGES IN SISTERHOOD AGREEMENT

In sisterhood relations with Ulju-gun Sangdae village and Sinhyeon village, we are consistently providing national holiday amenities, farming season amenities, living costs for village senior citizen centers and single senior citizens living alone and holding direct dealing markets for sisterhood villages since 1995.

Kids & Women

SUPPORT FOR MULTI-CULTURAL FAMILIES

We have continued activities for multicultural families since 2009, and we wish to diversify and expand our supportive projects. For the multicultural little baseball team 'Swings' that we helped to create in 2014, we held the spring camp by inviting commentator Jun-hyeok Yang in 2015. Also, we are continuing our sponsorship of the 'Ulsan Little Rainbow Orchestra' which is a cultural performance team for children of multicultural families. At the company anniversary event, well-being traditional cooking class and bazaar were held for multicultural families.

VOLUNTEER CAMP FOR EMPLOYEES' CHILDREN

Since 2009, we have been carrying out programs for training employees' children as environmental stewards and practical education for eco-friendly practices and volunteering at local welfare facilities.

CHEMISTRY SCHOLARSHIPS

We are keep expanding CSR activities to suit the identity of LFC such as scholarships to people talented in chemistry and providing career consultations.

Stakeholder Interview



Sang-min Lee
Manager, Ulsan Nam-gu Comprehensive Social Welfare Center

“
At Swings, every one of us is a member, regardless of cultural background.
”

At the Ulsan Nam-gu Comprehensive Social Welfare Center, to launch the multicultural baseball team, we have searched for training locations with the Cops Baseball Team at the Ulsan Nambu Police Station and recruited children, but it was hard to seek sponsors who would provide the equipment. Then, we found out LOTTE Fine Chemical was actively engaged in projects to support multicultural families in the region, and we were able to finally the Multicultural Little Baseball Team Swings in October 2014.

Swings training is instructed by the Cops Baseball Team of Ulsan Nambu Police Station every Sunday. In March 2015, LOTTE Fine Chemical held the spring camp for us by inviting commentator Jun-hyeok Yang who previously played for the Samsung Lions. We would like your encouragement for this special social contribution activity in association with a company, government and welfare center.

Facts & Figures

Economic Performance

Classification	Unit	2013	2014	2015
Summary of Consolidated Financial Statements				
Current assets	KRW million	506,816	471,922	583,397
Cash and cash equivalents	KRW million	86,969	97,141	219,295
Short-term financial instruments	KRW million	-	-	1,000
Held-to-maturity financial assets	KRW million	162	28	31
Derivative financial assets	KRW million	32	11	12
Trade receivables	KRW million	199,141	181,834	171,238
Other current financial assets	KRW million	13,213	14,599	24,627
Other current assets	KRW million	8,955	19,131	15,197
Inventories	KRW million	198,345	159,179	151,998
Non-current assets held for sale	KRW million	-	125,018	-
Non-current assets	KRW million	1,393,302	1,249,020	1,100,828
Long-term financial instruments	KRW million	36	34	32
Held-to-maturity financial assets	KRW million	302	227	213
Other non-current financial assets	KRW million	3,920	4,346	20,215
Available-for-sale financial assets	KRW million	234,683	244,478	108,107
Investments in joint ventures	KRW million	179,929	32,733	173,816
Property, plant and equipment	KRW million	928,967	927,366	760,862
Intangible assets	KRW million	42,616	37,721	33,600
Other non-current assets	KRW million	1,172	95	1,367
Deferred income tax assets	KRW million	1,676	2,020	2,617
Total assets	KRW million	1,900,118	1,845,960	1,684,225
Current liabilities	KRW million	201,882	184,346	185,332
Non-current liabilities	KRW million	571,734	465,813	335,313
Total liabilities	KRW million	773,617	650,160	520,645
Equity attributable to owners of the Parent	KRW million	1,126,494	1,186,679	1,163,580
Capital stock	KRW million	129,000	129,000	129,000
Capital surplus	KRW million	302,905	302,905	302,905
Other components of equity	KRW million	19,261	18,802	18,802
Accumulated other comprehensive income	KRW million	108,179	113,886	(159)
Retained earnings	KRW million	567,149	622,086	713,032
Non-controlling interest	KRW million	7	9,122	-
Total equity	KRW million	1,126,501	1,195,801	1,163,580
Classification	Unit	2013	2014	2015
Sales	KRW million	1,314,058	1,210,498	1,161,863
Operating income (loss)	KRW million	(20,344)	(24,355)	2,554
Net profits	KRW million	3,340	58,683	89,979
Profit attributable to:				
Owners of the parent	KRW million	3,341	61,175	93,865
Non-controlling interests	KRW million	-	(2,492)	(3,886)
Earnings per share	KRW/Share	131	2,402	3,685
Number of companies subject to consolidation	Compnay	3	5	4

Classification	Unit	2013	2014	2015
Distribution of economic value				
Shareholders	KRW million	7,641	7,641	12,735
Employees	KRW million	134,818	133,937	126,274
Government/Public institutions	KRW million	7,168	22,139	26,210
Local community	KRW million	598	466	485
Business partner	KRW million	767,607	405,674	373,676

Environmental Performance

Classification	Unit	2013	2014	2015	
Product	Production volume	Ton	1,687,921	1,987,442	2,021,650
Energy	Energy consumption	TJ	12,454	13,526	14,149
	Energy consumed per unit production	TJ/Product-Ton	0.007	0.007	0.007
	Decrease in energy consumption	TJ	806	84	117
Water	Water consumption	Ton	10,519,300	11,313,792	11,080,670
	Water consumed per unit production	Ton/Product-Ton	6.232	5.693	5.481
Water withdrawal by source	Streams	Ton	10,519,300	11,313,792	11,080,670
Greenhouse gas missions	Total emissions	tCO ₂ eq	534,007	645,801	694,562
	GHG emissions per unit production	(tCO ₂ eq/ Product-Ton)	0.316	0.325	0.344
	Scope 1	tCO ₂ eq	71,997	93,837	114,306
	Scope 2	tCO ₂ eq	462,010	551,964	580,256
	Decrease in GHG emissions	tCO ₂ eq	143,621	4,754	7,297
Other air pollutants	NOx emissions	kg	11,925	14,907	64,828
	SOx emissions	kg	-	10,840	15,298
Wastewater	Total weight of wastewater	Ton	5,943,736	7,623,230	8,386,890
	Wastewater discharge per unit production	Ton/Product-Ton	3.521	3.836	4.149
Water pollutants	Total weight of COD	kg	187,871	199,424	213,396
	COD discharge per unit production	Kg/Product-Ton	0.111	0.100	0.106
Waste materials	Total weight of waste	Ton	48,153	53,173	73,719
	Waste discharge per unit production	Ton/Product-Ton	0.029	0.027	0.036
	Specified waste	Ton	982	769	1,009
	Regular waste	Ton	47,171	52,404	72,710
	Incineration	Ton	1,581	1,659	1,459
	Landfill	Ton	22,822	38,813	44,189
	Others	Ton	18,419	2	15
	Recycling	Ton	5,332	12,699	28,056
	Recycling ratio	%	11.1	23.9	38.1
Environmental investment	Green Purchasing	KRW million	1,481	7,494	2,626

Social Performance

	Classification	Unit	2013	2014	2015
Employees	Total No. of employees	Person	1,038	899	823
	Male	Person	931	804	742
	Female	Person	107	95	81
By type	Full time	Person	1,023	873	804
	Part time	Person	15	26	19
By age	Under 30	Person	269	201	133
	30-50	Person	677	639	627
	Over 50	Person	92	59	63
Diversity	Person with disabilities	Person	25	23	22
	Patriots & Veterans	Person	51	44	42
	Foreigners	Person	2	1	1
Employment	Newly hired	Person	39	26	25
Employee turnover	Employee turnover rate	%	1.3	2.2	0.9
Collective bargaining	Percentage of employees covered by collective bargaining agreements	%	46.8	48.5	49.7
Parental leave	Number of employees subject to parental leave	Person	19	19	20
	Number of employees on parental leave	Person	7	7	8
	Parental leave rate	%	36.8	36.8	40.0
Occupational accidents	Accident rate	%	0.13	0.00	0.15
Education and training	Total hours of employee training	Hour	69,184	31,880	59,184
Human rights	Total hours of employee training on human rights	Hour	1.5	2.5	1.0
	Percentage of employees received training on human rights	%	100	100	100
Anti-corruption	Percentage of executives received training on anti-corruption	%	100	100	100
	Percentage of staff received training on anti-corruption	%	100	100	100
Incidents of corruption and actions taken	Confirmed incidents of corruption	Case	4	0	0
	Confirmed incidents in which employees were dismissed or disciplined	Case	4	0	0
	Confirmed incidents when contracts with business partners were terminated or not renewed	Case	0	0	0
	Legal cases regarding corruption brought against the organization or its employees	Case	0	0	0
Laws and regulations	Legal actions regarding anti-competitive behavior and monopoly legislation	Case	0	0	0
	Fines for non-compliance with regulations concerning marketing communications, including advertising and promotion	KRW million	0	0	0
	Incidents of non-compliance with regulations concerning marketing communications, including advertising and promotion	Case	0	0	0
Complaints	Complaints received concerning breaches of customer privacy	Case	0	0	0
	Number of identified leaks, thefts, or losses of customer data	Case	0	0	0

APPENDIX

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GRI Index

General Standard Disclosures

Aspect	Core	Index	Description	Page	Assurance
Strategy and analysis	●	G4-1	Statement from the most senior decisionmaker of the organization	4-5	●
		G4-2	Description of key impacts, risks, and opportunities	18-19, 27	
	●	G4-3	Name of the organization	6	●
Organizational profile	●	G4-4	Primary brands, products, and/or services	70-75	●
	●	G4-5	Location of organization's headquarters	6	●
	●	G4-6	Countries with significant operations	7	●
	●	G4-7	Nature of ownership and legal form	6	●
	●	G4-8	Markets served	7	●
	●	G4-9	Scale of the reporting organization	60-62	●
	●	G4-10	The total workforce by employment type, gender, employment contract and region	62	●
	●	G4-11	The percentage of total employees covered by collective bargaining agreements	47, 62	●
	●	G4-12	Description of the organization's supply chain	11, 52-55	●
Identified material aspects and boundaries	●	G4-13	Significant changes during the reporting period relating to size, structure, or ownership or its supply chain	2	●
	●	G4-14	Implementation of the precautionary approach or principle	18-19, 26-27	●
	●	G4-15	External initiatives that the organization endorses	2, 67	●
	●	G4-16	Memberships of associations such as industry associations	67	●
	●	G4-17	Entities included in the organization's consolidated financial statements or equivalent documents	2015 Business report	●
	●	G4-18	Process for defining report content	32-33	●
	●	G4-19	Material Aspects identified in the process for defining report content	32-33	●
	●	G4-20	Aspect Boundary within the organization	32-33	●
	●	G4-21	Aspect Boundary outside the organization	32-33	●
	●	G4-22	Effect of any restatements of information provided in previous reports, and the reasons for such restatements	N/A	●
Stakeholder engagement	●	G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	N/A	●
	●	G4-24	Stakeholder groups engaged by the organization	31	●
	●	G4-25	Basis for identification and selection of stakeholders with whom to engage	31	●
	●	G4-26	Approaches to stakeholder engagement by type and by stakeholder group	31	●
Report profile	●	G4-27	Key topics and concerns raised through stakeholder engagement, and how the organization has responded to them	32-59	●
	●	G4-28	Reporting period	2	●
	●	G4-29	Date of most recent previous report	N/A	●
	●	G4-30	Reporting cycle	2	●
	●	G4-31	Contact point for questions regarding the report or its contents	2	●
Governance	●	G4-32	Table identifying the location of the Standard Disclosures in the report	2	●
	●	G4-33	Policy and current practice with regard to seeking external assurance for the report	68-69	●
Ethics and integrity	●	G4-34	Governance structure of the organization, including committees of the highest governance body	24-25	●
	●	G4-56	Organization's values, principles, standards and norms of behavior	28-29	●

Specific Standard Disclosure

Aspect	Core	Index	Description	Page	Assurance
Economic					
Economic performance	●	DMA		Not reported	
	●	G4-EC1	Direct economic value generated and distributed	6, 60-61	●
	●	G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	36-39	●
Procurement practices	●	G4-EC3	Coverage of the organization's defined benefit plan obligations	2015 Business report 56-57, 77-79, 142-145	●
	●	DMA		52	
●	G4-EC9	Percentage of the procurement budget used for significant locations of operation spent on local suppliers	61	●	
Environmental					
Energy		G4-EN3	Energy consumption within the organization	61	
		G4-EN5	Energy intensity	61	
		G4-EN6	Reduction of energy consumption	61	
Water		G4-EN8	Total water withdrawal by source	61	
		G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	61	
Emissions		G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	61	
		G4-EN18	Greenhouse gas (GHG) emissions intensity	61	
		G4-EN19	Reduction of greenhouse gas (GHG) emissions	61	
		G4-EN21	NOx, SOx, and other significant air emissions	61	
Effluents and waste	●	DMA		36	
	●	G4-EN22	Total water discharge by quality and destination	61	●
	●	G4-EN23	Total weight of waste by type and disposal method	61	●
	●	G4-EN24	Total number and volume of significant spills	No such case	●
Compliance		G4-EN29	Monetary value of fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	No such case	
Overall	●	DMA		36	
	●	G4-EN31	Total environmental protection expenditures and investments by type	61	●
Labor Practices and Decent Work					
Employment		G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender, and region	62	
		G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	45-47	
		G4-LA3	Return to work and retention rates after parental leave, by gender	62	
Labor-management relations	●	DMA		44	
	●	G4-LA4	Minimum notice periods regarding operational changes	Immediate notice if needed	●
Occupational health and safety	●	DMA		40	
	●	G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of workrelated fatalities, by region and by gender	62	●
Training and education	●	DMA		44	
	●	G4-LA9	Average hours of training per year per employee by gender, and by employee category	62	●
	●	G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	45	●
Diversity and equal opportunity	●	G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	100% (In case of full-time employees)	●
		G4-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	24, 62	
Equal remuneration for women and men		G4-LA13	Ratio of the basic salary and remuneration of women to men for each employee category, by significant locations of operation	No gender difference	

Aspect	Core	Index	Description	Page	Assurance
Human Rights					
Non-discrimination		G4-HR3	Total number of incidents of discrimination and corrective actions taken	No such case	
Freedom of association and collective bargaining		G4-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	No such case	
Child labor		G4-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	N/A	
Forced or compulsory labor		G4-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	N/A	
Assessment		G4-HR9	Number and percentage of operations that have been subject to human rights reviews or human rights impact assessments	All business partners are subject to reviews	
Supplier human rights assessment		G4-HR10	Percentage of new suppliers that were screened using human rights criteria	All business partners are subject to reviews	
		G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	54-55	
Society					
Local communities		G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	100%	
		G4-SO2	Operations with significant actual or potential negative impacts on local communities	N/A	
Anti-corruption		G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	62	
		G4-SO4	Communication and training on anti-corruption policies and procedures	62	
		G4-SO5	Confirmed incidents of corruption and actions taken	62	
Anti-competitive behavior		G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	62	
Compliance		G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	N/A	
Supplier assessment for impacts on society		G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	N/A	
		G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	N/A	
Grievance mechanisms for impacts on society		G4-SO11	Number of grievances about impacts on society filed through formal grievance mechanisms	N/A	
Product Responsibility					
Product and service labeling		DMA		48	
		G4-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	100%	●
		G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	No such case	●
		G4-PR5	Results of surveys measuring customer satisfaction	49	●
Marketing communications		G4-PR6	Sale of banned or disputed products	N/A	
		G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	No such case	
Customer privacy		G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	No such case	
Compliance		G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	No such case	

Awards & Membership

Awards

Award Title	Description	Date	Organizer
2015 Samsung CSR Award	Cultural activities for multi-cultural families	Nov. 24, 2015	Samsung Corporate Citizen
2015 Sharing Happiness Prize	Share with and care for neighbors	Nov. 25, 2015	Ministry of Health and Welfare

Membership

Name		
The Federation of Korean Industries	Korea Hydrogen Industry Association	Korea Chemicals Management Association
Korea Listed Companies Association	Korea Electric Association	Environmental Protection Committee of Ulsan Supreme Prosecutors' Office
Green Company Council	Korea Electric Engineers Association	Korea Association of Occupational Health Nurses
Korea Responsible Care Council	Ulsan Electric Council	Korea International Trade Association
Korea Fire Safety Association	Korea Customs Logistics Association	Korea Economic Research Institute
Korea Industrial Safety Association	Ulsan Shipper Logistics Council	Korea Chlor Alkali Industry Association
Fair Competition Federation	Ulsan Chamber of Commerce and Industry	Korean Bioplastics Association
Korea Specialty Chemical Industry Association	National Emergency Plan Association	Korea Pharmaceutical Traders Association
Korea Industrial Technology Association	Korea Health Supplements Association	

Independent Assurance Report



2015 Independent Assurance Statement Lotte Fine Chemical

Introduction

We are commissioned to carry out the assurance engagement of the 2015 Sustainability Report (the 'Report') of Lotte Fine Chemical (the 'Company').

Scope of Assurance

As stated in the Report, the Company is responsible for all content within the Report in respect of the GRI Sustainability Reporting Guidelines. It is the responsibility of the Company's management to establish and maintain appropriate performance management and internal control systems from which the reported sustainability information is derived. Our responsibility is to perform a limited assurance engagement and to express a conclusion on the work performed.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement, and consequently does not enable us to obtain assurance on all significant matters that we may become aware of in a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance conclusion. This statement has been prepared solely for the Company in accordance with the terms of our engagement. We do not accept or assume responsibility to anyone other than the Company for our work, or for the conclusion we have reached in the assurance report.

Independence and Procedures Performed

Our performed the engagement in accordance with Deloitte's independence policies, which cover all of the requirements of the IFAC (International Federation of Accountants Code of Ethics). There were no events or prohibited services provided which could impair that independence and objectivity in the provision of this engagement.

We conducted our engagement based on the International Standard on Assurance Engagements (ISAE) 3000 Assurance Engagements other than Audits or Reviews of Historical Financial information, issued by the International Auditing and Assurance Standards Board, and also AA1000AS (Moderate level, Type 1). The standards require that we comply with applicable ethical requirements, including independence requirements and that we plan and perform the engagement to obtain limited assurance about whether the Report is free from material misstatement.

Conclusion

Based on the procedures performed, as described below, nothing has come to our attention to indicate that the Report is not presented fairly, in all material respects, in accordance with the reporting criteria.

Inclusivity

The Company operates communication channels with key stakeholders and we are not aware of any key stakeholder that has been excluded from dialogue in the Report.

Materiality

The Company conducts a materiality test in determining material issues and we are not aware of any material aspects concerning its sustainability performance which have been excluded from the Report.

Responsibility

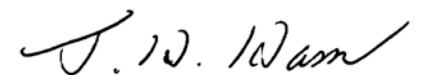
The Company applies reporting scope, boundary and temporal criteria. In terms of criteria mentioned above, we confirm that the Report is suitable for stakeholders to assess sustainability performance.

Recommendation

Without prejudice to our conclusions presented above, we believe the following matters can be considered for improved sustainability reporting. We recommended to increase number of stakeholders who participate in material analysis process. Also, we recommend to make up the organization in charge of sustainability issues that the Company is systemically and effectively managing sustainability issues and internal monitoring system. Finally, we recommended to set Lotte Fine Chemical's sustainability goal which reflect characteristics of fine chemical industry and estimate degree of achievement for continuous performance improvement.

8 July, 2016
Deloitte Anjin LLC




CEO Ham Jong-ho

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Key Products

BRAND STORY

High-function Green Material Products Our green material products are highly functional and customized materials that are used in the architecture, medicine, and food industries in 115 countries across the globe. In particular, MECELLOSE®, HECELLOSE™, AnyCoat®, and AnyAddy® are LOTTE Fine Chemical's own product brands.



Cellulose Relatives Homepage



Material for Pharmaceutical Capsules

This non-toxic white powder product is a raw material for tablet coating and capsules. It is a high-function product that improves viscosity, water solubility, and water holding capacity to enhance drug delivery.

AnyCoat®



Food Additive

This non-toxic white powder product improves viscosity, water solubility, and water holding capacity to improve the texture of food.

AnyAddy®



Additive for Paint

HECELLOSE™ is a non-toxic white powder that is added to paint, shampoo, and healthcare products to enhance effects such as thickening and moisture.

HECELLOSE™

Additive for Cement

MECELLOSE® is a non-toxic white powder that is added to construction cement. It is a water-soluble polymer for thickening, water holding capacity, lubrication, and stability.

MECELLOSE®



Nitrogen Oxide-Reducing Material EUROX®

EUROX® is a brand that was independently developed by LFC. This urea solution is a catalyst and reductant that reduces nitrogen oxides in Selective Catalytic Reductions (SCR) for vehicle, vessel, and industrial use. LFC uses high-quality materials and the strictest in production processes, quality control and inspection to produce top-quality EUROX® for vehicles and vessels.



EUROX® Homepage



High Value-added Eco-friendly Products Based on our technological prowess and long-accumulated know-how in the general chemicals business, LOTTE Fine Chemical is expanding our business range to include such eco-friendly products as a urea solution and bio-degradable plastics, thus contributing to the green growth for the company and our society as a whole.

Eco-friendly Bio-degradable Plastic EnPol

EnPol, a bio-degradable plastic, is the same in usage as other types of plastics that are used frequently in our daily lives. What is different about EnPol, however, is that it is an eco-friendly plastic that can completely dissolved into water and carbon dioxide through the actions of microbes such as bacteria, mold, and algae. Our bio-degradable plastic forms the raw material for various types of film that need to be bio-degradable, such as garbage bags, food waste bags, shopping bags, rolled bags, agricultural mulching films, and disposable household items such as gloves, table covers, etc. LOTTE Fine Chemical was also the first to develop bio-degradable fishing gear and fishing nets, which has made a major contribution in protecting the marine environment.



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PRODUCT LIST

Category	Product Name	Abbreviation	Chemical Formula	CAS No.	Characteristic / Purity	Packing	Application	Note
Chlor-Alkali Derivatives	Sodium Hydroxide (Caustic Soda Solution)		NaOH	1310-73-2	Liquid, 25%, 50% ap. Solution	Tank lorry, Bulk vessel, Pipe	Chemical agent, Pulp & Paper processing	
	Sodium Hypochlorite	HYPO	NaOCl	7681-52-9	Colorless or slightly yellow liquid, 12% Solution	Tank lorry	Bleaching agent, Disinfectant	Domestic Only
	Hydrogen		H ₂	1333-74-0	Gas, 99.99%	Pipe	Hydrogen peroxide raw material, Hydrodesulfurization	Domestic Only
	Hydrochloric acid		HCl	7467-01-0	Liquid, 35% aq. Solution	Cylinder, Tank lorry	Agrochemicals, Pharmaceuticals	Domestic Only
	Methyl Chloride	MC	CH ₃ Cl	74-87-3	Colorless, Liquefied gas, 99.9% min.	940Kgs Cylinder	Agrochemicals, Organic synthesis, Quaternary ammonium salt	
	Methylene Chloride	MCL	CH ₂ Cl ₂	75-09-2	Colorless, clear, volatile liquid, 99.9% min.	250Kgs Steel drum, 20MT ISO-Tank, Tank lorry	Electronic material processing, Pharmaceuticals, Metal cleanser, Urethane foaming	
	Chloroform	CFM	CHCl ₃	67-66-3	Colorless, clear, volatile liquid, 99.9% min.	250Kgs Steel drum, 20MT ISO-Tank, Tank lorry	Pharmaceuticals, Solvents, Fluorocarbon refrigerants (R-22)	
	Epichlorohydrin	ECH	C ₃ H ₅ OCl	106-89-8	Colorless liquid, 99.9% min.	240Kgs Steel drum, 19MT ISO-Tank, Tank lorry, Bulk vessel	Epoxy resin, Synthetic glycerin, Water treatment chemicals	EU REACH Registered
Cellulose Ethers	S-Quata® (3-chloro-2-hydroxy PropylTrimethyl Ammonium Chloride)	PTAC	C ₆ H ₁₃ Cl ₂ NO	3327-22-8	Colorless liquid, 65% min. (S-Quata 885), 69% min. (S-Quata 889)	230Kgs PE Drum, 1.1MT IBC, Flexibag, Tank lorry	Additives for starch, High-quality pulp, Personal care product, Texttile, Raw materials for surface active agent	EU REACH Registered
	MECELLOSE®	MC	9004-67-5	White or yellowish powder	20kg: Paper bag with PE inner liner 350kg: PP Jumbo bag with PE inner liner	Tile adhesives, EIFS/ETICS, Plasters & Renders, Ceramic & Cement extrusion, Joint compounds, Paints & Coatings		
		HPMC	9004-65-3					
		HEMC	9032-42-4					
	HECELLOSE™	HEC	9004-62-0	25kg: Paper bag with PE inner liner 450kg: PP Jumbo bag with PE inner liner	Paints & Coatings, Personal care, Joint compounds, Oil field, Emulsion polymerization, Detergents, Construction applications			
		HPMC	9004-65-3					
	AnyCoat®	HPMC-P	9050-31-1	20kg, 25kg: Fiber drum with PE double inner bag	Film coating, Binder, Sustained release, Formulation, Capsule making	Enteric coating, Solid dispersion	Certificate: Kosher, ISO9001, DMF	
		HPMC-AS	71138-97-1					
MC		9004-67-5						
AnyAddy®	HPMC	9004-65-3	20kg, 25kg: Fiber drum with PE double inner bag, Paper bag with PE double inner liner	Foods, Dietary supplements		Certificate: FSSC22000 (GFSI)		
	HPMC-P	9050-31-1						
Ammonia Derivatives	Monomethylamine	MMA	CH ₃ NH ₂	74-89-5	Colorless liquid, 40% min. (aq. Solution)	170Kgs Steel drum, 20MT ISO-Tank (aq. Solution)	Pharmaceuticals, Alkylalkanolamines (MDEA), Soli fumigant, Pesticide, Properllants	
	Dimethylamine	DMA	(CH ₃) ₂ NH	124-40-3	Colorless liquid, 50%, 60% min. (aq. Solution), Gas, 99.8%	160Kgs Steel drum, 19MT ISO-Tank (aq. Solution), High-pressure ISO-Tank	Agrochemicals, Surface active agent, Water treatment, Rubber vulcanization accelerator	
	Eurox® (Aq. Urea solution)		(NH ₂) ₂ CO	57-13-6	Colorless urea solution, 32.5% and 40%	10L PET, 200L Drum, 1000L IBC, Bulk vessel	Selective catalytic reduction (De-Nox) in diesel engine	
	Ammonia (Anhydrous ammonia)		NH ₃	67-56-1	Colorless liquid, 99.5% min.	Tank lorry, Pipe	Urea, Caprolactam, Acrylonitrile, Hydrazine	
	Tetramethyl Ammonium Chloride	TMAC	(CH ₃) ₄ NCl	75-57-0	Colorless solution, 58% min.	20MT ISO-Tank	TMAH raw material, Oil & Gas industry	
Tetramethyl Ammonium Hydroxide	TMAH	(CH ₃) ₄ NOH	75-59-2	Colorless solution, 20% or 24.9% min.	190Kgs PE drum, 20MT ISO-Tank, Tank lorry	Photoresist development, Anisotropic etchant		
Bio-degradable Plastics	EnPol	PBAT	55231-08-8	White pellet	25Kgs paper bag with PE & aluminum inner liner 1MT bulky bag with PP & aluminum inner liner	Film & package, Coating, Medical supplies, Architecture & Civil engineering, Reforming, Fiber fishing net & tools, Injection molding		
		PBS	67423-06-7					

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