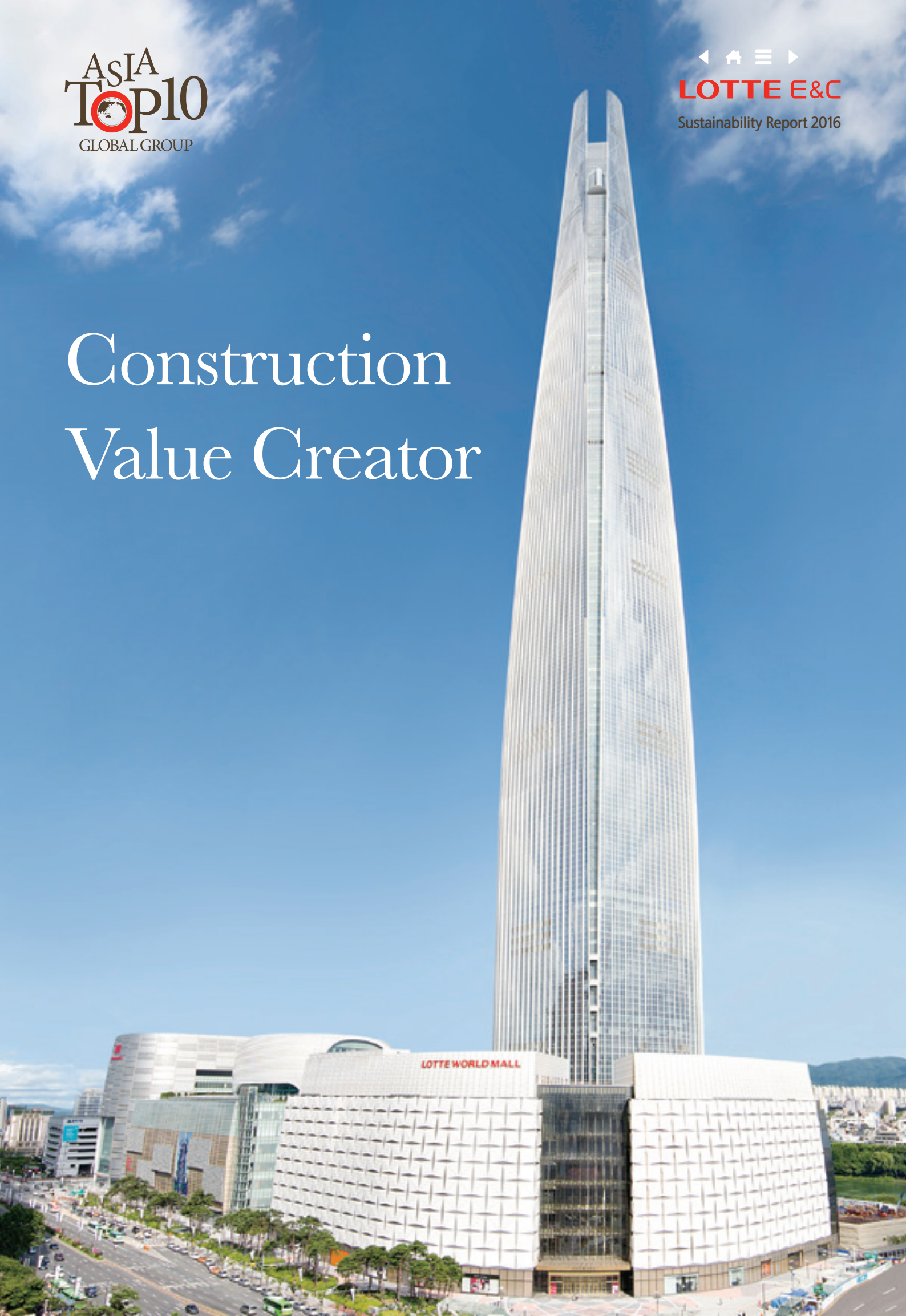
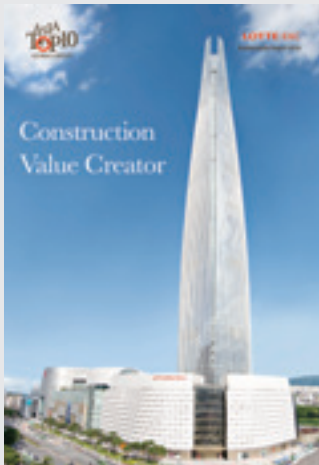


Construction Value Creator



About This Report



2016 Cover Story

By presenting our very own high-rise landmark LOTTE WORLD TOWER together with our corporate vision 'Asia Top 10 Construction Value Creator', we expressed the 'spirit' of LOTTE E&C employees which is to offer greater values to our customers.

Features of the Report

LOTTE E&C has been publishing the Sustainability Report every year since 2013 as a means to disclose transparently the company's sustainable management activities and performance results to its stakeholders. Strategies, goals and performance in six key areas of sustainable management are reported along with LOTTE E&C's major business areas. Major issues devised from materiality test are also included to offer more detailed information to stakeholders.

Reporting Period and Scope

This report elaborates on the performance of the past three years for stakeholders to identify the trends in the quantitative performance. Some major agenda or significant activities and performance are included in 2016 data.

This report covers our 231 domestic sites including the company headquarters and construction management division, and overseas sites for major issues such as economic and social achievements. There were no significant changes in corporate scale, structure, equity ownership and supply chain throughout 2015, and consolidated affiliates were excluded from the report.

Reporting Standards

This report was written in accordance with the Core Option suggested by the GRI(Global Reporting Initiatives) G4 guidelines and we conducted materiality tests to decide on what to report. The data was generated based on the GRI G4 protocol. Unless otherwise prescribed in the protocol, the data was documented in accordance with the company's management standards, and the documentation standards are indicated herein.

Reporting Assurance

This report was assured independently by a third-party entity to ensure the level of credibility and reliability. The related information on reporting assurance is described in the assurance report (p.106~107).

Note on Exchange Rates

The monetary numbers in this report were initially expressed in Korean Won(KRW). In this English version of the same report, the following exchange rates have been used to convert KRW into United States Dollars(USD):

- Past three year performances(2013 to 2015): Yearly KRW-USD average exchange rate for the respective years
- Past revenue and order volume in the Profile / History section, 2016 goals in Issue 1 section, and legal standards: KRW-USD average exchange rate for the year 2015(for comparison purposes)
- * Year 2013: 1 USD = 1,095.04 KRW
- * Year 2014: 1 USD = 1,053.22 KRW
- * Year 2015: 1 USD = 1,131.49 KRW

Interactive Guide

The LOTTE E&C Sustainability Report 2016 was produced in the Interactive PDF, guiding readers to a relevant page they wish to read.



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CONTENTS

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CEO's Message



“We commit ourselves to fulfilling our responsibilities as a better value creator to our customers, as a trusted companion to our business partners, and as a corporate citizen who contributes to the sustainable growth in local communities both home and abroad.”

Dear distinguished customers and stakeholders at home and abroad,

It is my greatest pleasure to introduce LOTTE E&C to you through the Sustainability Report.

LOTTE E&C does the utmost to enhance the quality of life in all parts of the world. As an affiliate of LOTTE Group, our management activities are based on the Group's mission: 'We enrich people's lives by providing superior products and services that our customers love and trust'.

Since its establishment in 2012, the Council for Sustainability Management and Development ('Sustainability Council') has actively disclosed yearly performance of LOTTE E&C for mutual growth with domestic and global customers and communities, and for strengthening our sustainable value creating activities.

Regarding the economic aspect, we have enjoyed growth in orders and operating profit for three consecutive years while our financial structure has steadily improved despite the challenging economic market conditions at home and abroad, and in the Korean construction industry.

We seek to offer better values to customers and assure our corporate presence and growth potentials amid the rapidly changing paradigms in the construction industry. Thus we have strengthened our distinctive competence in marketing, design, procurement, construction and project management for our businesses including housing, architecture, civil, plant and overseas works.

LOTTE E&C has improved its technologies, quality and service standards from its main products including LOTTE CASTLE, Korea's first premium brand apartment house introduced in 1999, high-rise buildings, multipurpose and retail facilities, power, petrochemical and industrial plants, ground transportation facilities and water treatment systems.

In order to secure a safe working environment, we have reinforced our health, safety and environment system and disaster prevention measures. We also strive to contribute to the protection and improvement of the environment by applying eco-friendly technology such as management of the greenhouse gas & energy management system and water treatment methods.

On the social aspect, all employees at LOTTE Group abide by the 'Code of Conduct for LOTTE Employees' as the criteria for value judgment in order to strengthen the trust with customers, partners and colleagues.

To achieve mutual growth with our partners, we have strengthened fair trade compliances as well as funding and technical / educational support. As for the society, we have expanded our CSR activities to make most of our industry-specific skills by all employees home and abroad participating in activities such as worn-out home improvement for the underprivileged, along with many other volunteer works for the community. Employee donation and matching grant programs are under implementation as well.

We commit ourselves to not being complacent with today's success but fulfilling our responsibilities as a better value creator to our customers, as a trusted companion to our business partners, and as a corporate citizen who contributes to the sustainable growth in local communities both home and abroad.

Thank you.

August 2016

President and CEO **Chee Hyun Kim**



Company Profile

Established in 1959, LOTTE E&C became an affiliate of LOTTE Group in 1978. With LOTTE Group's mission, core values and management policies at the base, LOTTE E&C has set the corporate vision as 'Asia Top 10 Construction Value Creator' and continues to change and overcome any challenges.

We have been expanding our business field in domestic and overseas markets. Our business performance for the year 2015 was USD 7.34 billion in orders received, USD 3.65 billion in revenue and USD 141 million in operating profit.

General Information

Corporate Name	LOTTE ENGINEERING & CONSTRUCTION(LOTTE E&C)
Date of Foundation	February 3, 1959(acquired by LOTTE Group in 1978)
President and CEO	Chee Hyun Kim(inaugurated in March, 2014)
Headquarters	29, Jamwon-ro 14-gil, Seocho-gu, Seoul, Korea
Overseas Operations	17 countries
Main Business	Housing, Architecture, Civil Works and Plant
Credit Rating	'A' by NICE Investors Service(June, 2016)

LOTTE Group's Mission

WE ENRICH PEOPLE'S LIVES BY PROVIDING SUPERIOR PRODUCTS AND SERVICES THAT OUR CUSTOMERS LOVE AND TRUST

LOTTE Group's Vision 2020

ASIA TOP 10 GLOBAL GROUP

LOTTE E&C's Vision 2020

ASIA TOP 10 CONSTRUCTION VALUE CREATOR

LOTTE E&C's Core Value

Customer Focus

Originality · Passion

Devotion · Partnership

Social Responsibility

Technical Excellence

LOTTE E&C's Management Policy

Transparent Management

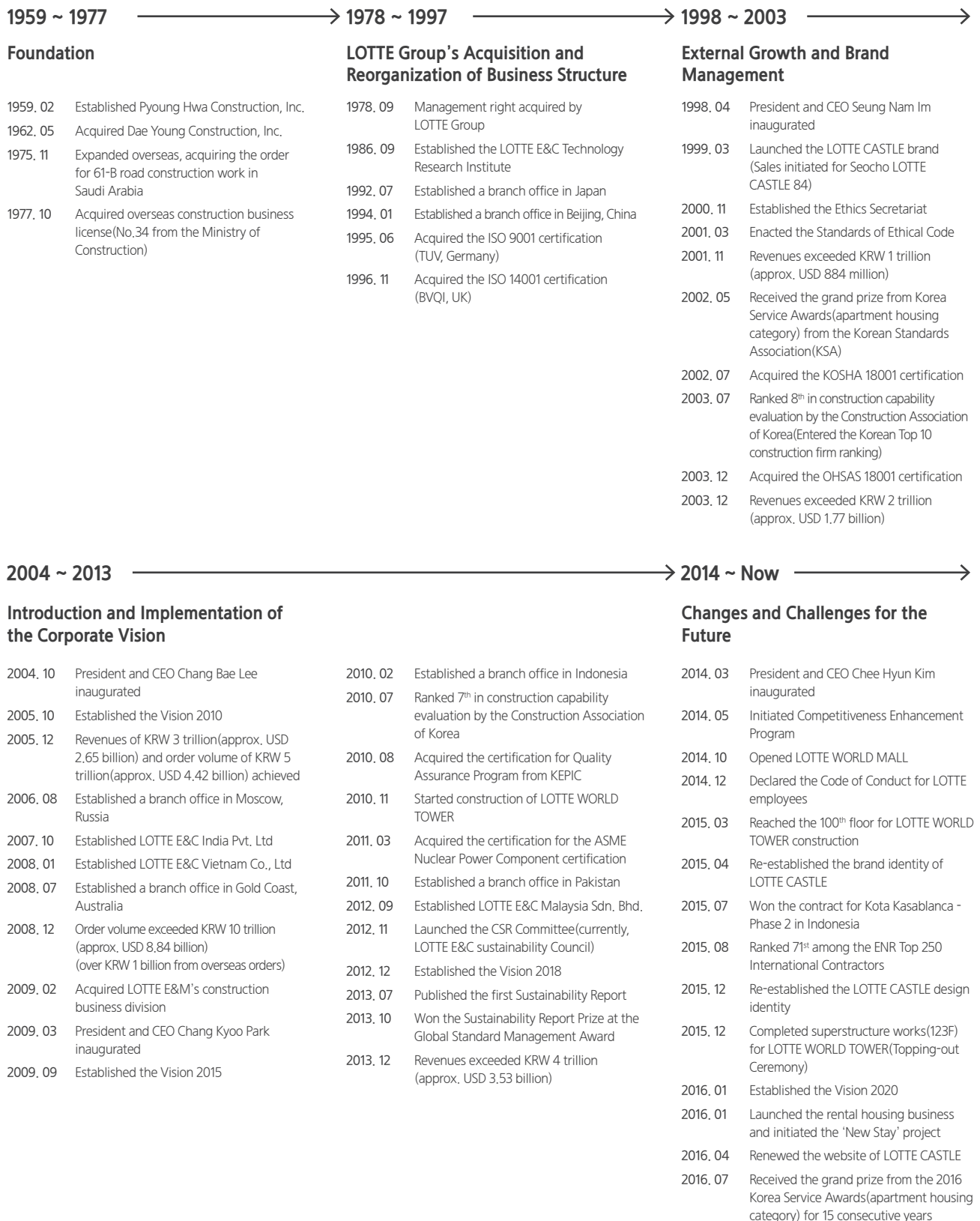
Strengthening Core Competencies

On-site Management

Developing Talent

Enhancing Brand Value

HISTORY





Sindongbaek LOTTE CASTLE Eco(Dec. 2009 ~ Jun. 2013)

- Site location: Giheung-gu Yongin, Gyeonggi Province
- Construction scale: 3 stories below the ground and from 17 to 40 above, 26 buildings, 2,770 units
- Features of the complex: An eco-friendly residential complex with landscape area of 40%, touting a 6-hole Par 3 golf course, the first of its kind in an apartment complex

HOUSING

We introduced a brand apartment housing for the first time in the Korean construction market in March, 1999, with 'Seocho LOTTE CASTLE 84', located in the highly demanded Seoul Seocho area. Since then, we have established our brand identity as 'Prestige of Life' and have led the housing culture in Korea. Along with the LOTTE CASTLE apartments, we have diversified our portfolio to include residential & commercial complexes and studio apartments in various methods such as urban improvement projects(redevelopment-reconstruction), self-financed projects and contracted projects, and have implemented project planning, feasibility studies, sales, marketing, design & interior works, construction and maintenance works to provide differentiated quality and service to our customers. We are also strengthening our rental housing business which is the future growth engine in line with the paradigm changes in the housing market.

Apartments



1



2



3



4

1 Daeyeon LOTTE CASTLE Legend
(Nov. 2014 ~ Feb. 2018 tentative)

- Site location: Daeyeon-dong, Nam-gu, Busan
- Construction scale: 6 stories below the ground and 35 above, 30 buildings, 3,149 units
- Features of the complex: Creating an overwhelming urban scape with the skyline of 30 apartment buildings



5

2 Hwamyong LOTTE CASTLE Kaiser
(Mar. 2009 ~ Jun. 2012)

- Site location: Hwamyong-dong Buk-gu, Busan
- Construction scale: 4 stories below the ground and 35 above, 48 buildings, 5,239 units
- Features of the complex: 840,000 trees of different species and 12 parks with different themes in the large residential complex where home is within the nature



6

3 Bangbae LOTTE CASTLE Arte(Jul. 2011 ~ Nov. 2013)

- Site location: Bangbae-dong Seocho-gu, Seoul
- Construction scale: 3 stories below the ground and 18 above, 11 buildings, 744 units
- Features of the complex: A complex with eco-friendly design using the cutting-edge façade design and the natural topography

4 Seocho LOTTE CASTLE President
(Dec. 2011 ~ Nov. 2014)

- Site location: Seocho-dong Seocho-gu, Seoul
- Construction scale: 2 stories below the ground and from 25 to 31 above, 3 buildings, 280 units
- Features of the complex: A complex offering a premium performance of lights and sounds with a media pole installed in the central plaza



7

5 Bulgwang LOTTE CASTLE(Mar. 2011 ~ Sep. 2013)

- Site location: Bulgwang-dong Eunpyeong-gu, Seoul
- Construction scale: 5 stories below the ground and 18 above, 9 buildings, 588 units
- Features of the complex: A complex with outstanding community facilities in three zones(Healthy, Culture and Comfort)

7 Songdo LOTTE CASTLE(Jan. 2010 ~ Nov. 2012)

- Site location: Songdo-dong Yeonsu-gu, Incheon
- Construction scale: 2 stories below the ground and from 23 to 32 above, 6 buildings, 643 units
- Features of the complex: A complex with a lower part façade with a three-dimensional effect and maximum inter-building distances as each building is crisscrossed



8

8 Unjeong New Town LOTTE CASTLE
(Jun. 2011 ~ Nov. 2014)

- Site location: Wadong-dong Paju, Gyeonggi Province
- Construction scale: 2 stories below the ground and from 18 to 30 above, 20 buildings, 1,880 units
- Features of the complex: A complex with community facilities of about 5,000m² including an indoor golf club, moms' / kids' café and smart home office

Residential and Commercial Complexes





2

1 Cheongna LOTTE CASTLE(May, 2009 ~ Feb, 2013)

- Site location: Gyeongseo-dong Seo-gu, Incheon
- Construction scale: 2 stories below the ground and from 43 to 50 above, 8 buildings, 1,326 units(828 units for the apartments and 498 units for the studios)
- Features of the complex: A residential and commercial complex with a rhythmic skyline from design combination of plank type and tower type, trees for environmental remediation(Castle Forest), an artificial waterway(Castle Canal Way), promenades and rooftop landscaping

2 Songdo Campus Town(Aug, 2012 ~ Mar, 2016)

- Site location: Songdo-dong Yeonsu-gu, Incheon
- Construction scale: 3 stories below the ground and 55 above, 8 buildings, 3,065 units (1,230 units for the apartments and 1,835 units for the studios)
- Features of the complex: As a 55-story landmark, a pedestrian-centered complex with the piloti design for the apartment and 100% underground parking space

3 Deoksugung LOTTE CASTLE (Sep, 2013 ~ Jul, 2016)

- Site location: Sunhwa-dong Jung-gu, Seoul
- Construction scale: 5 stories below the ground and 22 above, 3 buildings, 494 units(296 units for the apartments and 198 units for the studios)
- Features of the complex: A residential and commercial complex with outstanding landscaping with a garden concept where the traditional and dignified atmosphere of Deoksugung Palace has been represented in a contemporary way



3

LOTTE CASTLE Gold Park

A new-town-scale multipurpose complex comprised of apartments, studios, offices and hotel, located in Geumcheon-gu, southwestern Seoul(4,409 units)



1 LOTTE CASTLE Gold Park Block 1 (Nov. 2013 ~ Nov. 2016 tentative)

- Site location: Doksan-dong Geumcheon-gu, Seoul
- Construction scale: 2 stories below the ground and from 25 to 35 above, 11 buildings, 1,743 units
- Features of the complex: A complex with all the units facing the south, having a three-dimensional facade design, a large green plaza and promenades

2 LOTTE CASTLE Gold Park Block 2 (Apr. 2014 ~ Sep. 2017 tentative)

- Site location: Doksan-dong Geumcheon-gu, Seoul
- Construction scale: 5 stories below the ground and from 14 to 41 above, 4 buildings, 470 units (292 units for the apartments and 178 units for the studios)
- Features of the complex: A complex applying a new plan design with maximized sunlight exposure, ventilation, openness and service areas



3 LOTTE CASTLE Gold Park Block 3 (Mar. 2015 ~ Sep. 2018 tentative)

- Site location: Doksan-dong Geumcheon-gu, Seoul
- Construction scale: 5 stories below the ground and from 43 to 47 above, 6 buildings, 1,236 units
- Features of the complex: A complex with a courtyard-type central plaza with the width of 40m, and a sky lounge on the top

4 LOTTE CASTLE Gold Park TOWER 960 (Sep. 2015 ~ Mar. 2019 tentative)

- Site location: Doksan-dong Geumcheon-gu, Seoul
- Construction scale: 5 stories below the ground and from 15 to 39 above, 3 buildings, 960 units for the studios
- Features of the complex: A complex of hotel, office and studio facilities, completing the Gold Park Complex of LOTTE CASTLE by connecting the studios with the hotel with a bridge, which are aligned with a café street near the complex and Siheung-daero





LOTTE CASTLE's Brand Renewal

Brand House

Brand Mission

We will always think of building LOTTE CASTLE as building homes for our own families, and keep that in mind to lead the way at each stage including site selection, product development, designing, construction and after-sales service.

Brand Vision

We will make LOTTE CASTLE as the most beloved brand that adds values to its residents as time passes.

Brand Identity

Prestige of Life

Respect leads to prestige, which makes our life more beautiful.
We wish for more people to enjoy and share their prestige in life.

Core Value

Sincerity

We touch hearts by thinking deeply and ahead.
LOTTE CASTLE's heart-touching journey is completed with the sincerity of all employees.

- Differentiated quality and service
- Pragmatism
- Excellent location
- Security

Harmony

Our designs, in harmony with people, nature, space and technology, raise the quality in life and realize the prestige in the housing culture.

- Eco-friendliness and energy saving
- Barrier free
- Elegant luxury
- Trendy but unique

Etiquette

Empathy and compassionate attention is the beauty of the etiquette that connects 'me' and 'us'.

- Leisure and healing
- Joyful membership
(neighbors, communities and next generations)

Changes in the Brand Logo



LOTTE CASTLE

1999



LOTTE CASTLE

2007



LOTTE CASTLE

2016

For the brand logo(which represents the symbolic image of LOTTE CASTLE) we chose the golden eagle, known to be the most prestigious of all eagles, to clearly define our identity, and further simplified it in a modern way to enhance its visual perception for a younger image. Our new brand logo emphasizes the flying eagle which represents our goals to develop LOTTE CASTLE beyond a mere residential space into a prestigious community. The shield around the eagle has been repositioned to the heart of the eagle to build up the image of a residential brand's security and safety. In addition, we newly created the LOTTE CASTLE font with its motif from classic architecture.

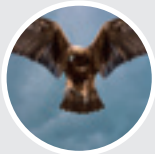
Meanings of the Brand Logo



Golden Eagle
Golden yellow, Bravery



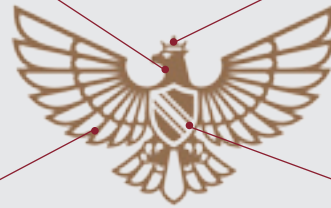
Royal Crown
Dignity and Prestige of a Royal Family



Energetic Wings
Guardian, Rising, Change



Dignity Shield
Protection, Safety



Color, Pattern and Pictogram



Facade and Main Gate





LOTTE WORLD TOWER(Nov. 2010 ~ Dec. 2016 tentative)

- Construction scale: 6 stories below the ground and 123 above, height of 555m, total floor area of 428,877m² (807,613m² in total)

LOTTE WORLD MALL(Nov. 2010 ~ Oct. 2014)

- Construction scale: 6 stories below the ground and 6 above, total floor area of 378,736m²(807,613m² in total)

ARCHITECTURE

We engage in construction and remodeling works for urban buildings including high-rise buildings such as the LOTTE WORLD TOWER, multipurpose and retail buildings, offices, facilities for education, medical service, logistics, leisure, sports and religious activities.

While most of the domestic and international firms with high-rise building project experience limit themselves to only construction activities, LOTTE E&C, in collaboration with the LOTTE Group affiliates, provide differentiated solutions including project development and planning, technology and economic feasibility studies, tenant marketing, design & engineering, construction and operation, thereby contributing to adding value to the customers' real estate assets.



High-Rise Buildings



1



2





2

1 LOTTE WORLD TOWER
(Nov. 2010 ~ Dec. 2016 tentative)

- Site location: Sincheon-dong Songpa-gu, Seoul
- Construction scale: 6 stories below the ground and 123 above, height of 555m, total floor area of 428,877m² (807,613m² in total)
- Features of the project: To be Korea's landmark as well as the world's 6th tallest building, presenting Korea's traditional beauty in both cutting-edge technology and nature

2 LOTTE WORLD MALL(Nov. 2010 ~ Oct. 2014)

- Site location: Sincheon-dong Songpa-gu, Seoul
- Construction scale: 6 stories below the ground and 12 above, total floor area of 378,736m² (807,613m² in total)
- Features of the project: Eco-friendly complex equipped with various facilities including duty-free shop, shopping mall, supermarket, cinema, aquarium and concert hall

3 BUSAN LOTTE TOWN
(Feb. 2001 ~ Dec. 2019 tentative)

- Site location: Jungang-dong Jung-gu, Busan
- Construction scale: 8 stories below the ground and 107 above, height of 510m, total floor area of 581,871m²
- Features of the project: A futuristic complex of shopping, cultural, residential, hotel and office facilities that restores Busan's urban functions



3

Multipurpose Facilities



1 LOTTE CENTER HANOI, Vietnam

(May, 2010 ~ Jun, 2014)

- Site location: Hanoi, Vietnam
- Construction scale: 5 stories below the ground and 65 above, height of 272m, total floor area of 253,134m², 258 units for the service residence, 318 rooms for the hotel, commercial facilities, offices
- Features of the project: The first high-rise building constructed by LOTTE E&C abroad, being the first foreign company ever to win the High Quality Construction Prize from the Ministry of Construction and Excellent Site Safety Award from the Ministry of Labor, Invalids and Social Affairs

2 Phase 2 of Kota Kasablanca in Indonesia

(Oct, 2015 ~ May, 2018 tentative)

- Site location: Southern part of Jakarta, Indonesia
- Construction scale: 5 stories below the ground and from 41 to 43 above, total floor area of 365,251m², 2 buildings(1,211units) for the apartments and 1 building for the office
- Features of the project: LOTTE E&C's first architectural project in Indonesia





3



4

3 LOTTE WORLD Shenyang, China
(Nov. 2011 ~ Oct. 2019 tentative)

- Site location: Shenyang, China
- Construction scale: 4 stories below the ground and 43 above, total floor area of 1,516,694m²
- Features of the project: LOTTE E&C's first multipurpose facility development project in China (housing, commercial facilities, offices, a hotel, a theme park, etc.)

4 LOTTE MALL Chengdu, China
(Nov. 2013 ~ Dec. 2018 tentative)

- Site location: Chengdu, China
- Construction scale: 2 stories below the ground and 40 above, total floor area of 568,595m²
- Features of the project: LOTTE Group's second landmark project in the western China - Multipurpose facilities comprised of commercial buildings (shopping mall, supermarket, cinema, office, etc.) and residential buildings



5

5 New Arbat Multipurpose Building, Russia
(Sep. 2003 ~ Aug. 2010)

- Site location: Moscow, Russia
- Construction scale: 4 stories below the ground and 21 above, total floor area of 142,641m²
- Features of the project: LOTTE E&C's first building construction project in Russia (a department store, offices, a hotel)

6 Moscow LOTTE BUSINESS CENTER
(Jan. 2011 ~ Feb. 2013)

- Site location: Moscow, Russia
- Construction scale: 2 stories below the ground and 22 above, total floor area of 58,660m²
- Features of the project: LOTTE E&C's first real estate development project in Russia



6

Retail Facilities



1 LOTTE MALL SUWON (May, 2012 ~ Sep, 2014)

- Site location: Gwonseon-gu, Suwon, Gyeonggi Province
- Construction scale: 3 stories below the ground and 8 above, total floor area of 213,566m²
- Features of the project: Gyeonggi Province's symbolical shopping complex that has adopted eco-friendly facilities such as solar power generation and rooftop ecological park

2 LOTTE PREMIUM OUTLETS Icheon Branch (Aug, 2012 ~ Feb, 2014)

- Site location: Dancheon-ri Hobeop-myeon, Icheon, Gyeonggi Province
- Construction scale: 3 stories below the ground and 2 above, total floor area of 183,711m²
- Features of the project: A large-scale outlet mall consisting of Baekja* Building and Cheongja* Building fully reflecting the features of Icheon, an area well known for potteries

*Baekja: white porcelain
*Cheongja: blue porcelain



Medical Service / Office / Accommodation Facilities and Theme Parks



1



2



3



4



5



6

1 Yonsei Cancer Center(Jul. 2010 ~ Mar. 2014)

- Site location: Sincheon-dong Seodaemun-gu, Seoul
- Construction scale: 7 stories below the ground and 15 above, total floor area of 105,201m²
- Features of the project: A specialized cancer treatment hospital equipped with 510 beds and 64 doctor's offices

2 Busan Bank Head Office(Dec. 2011 ~ Jul. 2014)

- Site location: Munhyeon-dong Nam-gu, Busan
- Construction scale: 3 stories below the ground and 23 above, total floor area of 59,826m²
- Features of the project: A landmark building located in the Busan financial complex, well known as an eco-friendly and hi-tech building

3 LOTTE HOTEL Busan(Jul. 1992 ~ Nov. 1997)

- Site location: Bujeon-dong Jin-gu, Busan
- Construction scale: 6 stories below the ground and 42 above, 650 rooms
- Features of the project: Korea's highest hotel located at the center of Busan

4 L7 Myeong-dong(Dec. 2013 ~ Dec. 2015)

- Site location: Myeong-dong, Jung-gu, Seoul
- Construction scale: 3 stories below the ground and 21 above, 245 rooms
- Features of the project: 'L7' - a brand hotel targeting young people

5 LOTTE CITY HOTEL Myeong-dong (May. 2013 ~ Dec. 2015)

- Site location: Myeong-dong(Janggyo-dong), Jung-gu, Seoul
- Construction scale: 4 stories below the ground and 27 above, 430 rooms
- Features of the project: A four-star premium business hotel located in the Four Great Gates in Seoul

6 Gimhae LOTTE WATERPARK (Mar. 2012 ~ Jun. 2015)

- Site location: Jangyu-myeon Gimhae, South Gyeongsang Province
- Construction scale: 1 story below the ground and 4 above, total floor area of 46,735m²
- Features of the project: An amusement waterpark with indoor and outdoor pools of the largest scale in Korea

Airport Logistics Facilities



1



2



3

1 Frame Work and Finishing Work of T2 Front Facilities(Aug. 2014 ~ Oct. 2017 tentative)

- Site location: In Incheon International Airport in Unseo-dong, Jung-gu, Incheon
- Construction scale: 4 stories below the ground and 2 above, total floor area of 139,038m²
- Features of the project: A construction project for the transportation center(including transit facilities, bus platforms, and KTX lobbies, etc.) for Passenger Terminal 2 of Incheon International Airport, which is a national policy project aligned with the 2018 Pyeongchang Winter Olympics, applying the space frame methods to free formed structures

2 Gimpo Center of LOTTE MART MALL (Jun. 2014 ~ Feb. 2016)

- Site location: In the Gochon Logistics Center in Gimpo, Gyeonggi Province
- Construction scale: 1 stories below the ground and 5 above, total floor area of 30,869m²
- Features of the project: A logistics center exclusively in charge of delivery services for LOTTE MART's online orders, enhancing convenience in delivery for customers by applying the latest automation system

3 Yeongjeong-do 2nd Integrated Logistics Center (Sep. 2013 ~ Aug. 2014)

- Site location: Free Trade Zone, Unseo-dong Jung-gu, Incheon
- Construction scale: Total floor area of 50,439m²
- Features of the project: A construction project under contract with multiple employers(five major duty free shops) with new technologies such as ACT columns, HYFO beams and siphonics

Educational and Research Facilities



1

1 Yonsei University School of Business (Jan. 2014 ~ Sep. 2015)

- Site location: Sinchon-dong, Seodaemun-gu, Seoul
- Construction scale: 3 stories below the ground and 6 above, total floor area of 20,135m²
- Features of the project: An eco-friendly and intelligent building based on the concept of harmony with the nature and traditions

2 Multi-purpose Hall of Dongduk Women's University (Nov. 2013 ~ Aug. 2016)

- Site location: Hawolgok-dong, Seongbuk-gu, Seoul
- Construction scale: 4 stories below the ground and 9 above, total floor area of 24,666m²
- Features of the project: A multi-functional educational facility suited to the latest trends of universities, including an auditorium, a book café, multi-media rooms, special lecture rooms, study rooms, a lab and a dormitory

3 LOTTE MAGOK CENTRAL RESEARCH CENTER (Feb. 2015 ~ Apr. 2017 tentative)

- Site location: Magok-dong, Gangseo-gu, Seoul
- Construction scale: 3 stories below the ground and 8 above, total floor area of 83,103m²
- Features of the project: An open building with a central courtyard as a comprehensive food research institute of affiliates of LOTTE Group (LOTTE CONFECTIONARY, LOTTERIA, LOTTE CHILSUNG BEVERAGE, LOTTE FOOD, LOTTE CHEMICAL)



2



3

CIVIL WORKS

LOTTE E&C contributes to the national land development and infrastructure expansion at home and abroad including transportation and logistical facilities(roads, railways, subways, airports and ports), landfill and site renovation(housing site, industrial complexes, and port hinterlands), water treatment systems(water supply, water-cleaning, sewage and wastewater treatment), and irrigation facilities (dams, waterways and hydro power plants).

We provide total solutions in public financing projects(turnkeys, technical proposals and contracted works) and private investment projects(PPP, BOT, BTO, BOO, BTL, etc.) ranging from project planning, technical & economic feasibility analysis, financing & direct investment, design & construction to post-construction facility maintenance.

Gwangan Bridge(Dec. 1994 ~ Dec. 2002)

- Site location: Namcheon-dong Suyeong-gu ~ U-dong Haeundae-gu, Busan
- Construction scale: 7.42km in total(a suspension bridge of 0.9km, a trust bridge of 0.72km and an approach bridge of 5.8km), width of 18~25m, four-lane divided roadways, a double-deck structure
- Features of the project: A sea-crossing bridge for smooth bypass shipping of the port and industrial trading volume in Busan



Ground Transportation Facilities



1

1 Section 4 of Seoul-Chuncheon Expressway
- Private Investment Project
(Aug. 2004 ~ Jul. 2010)

- Site location: Seojong-myeon Yangpyeong-gun ~ Seorak-myeon Gapyeong-gun, Gyeonggi Province
- Construction scale: 7.32km in total, four-lane, 6 bridges(1,044km), 2 tunnels(912m, two-lane), 1 IC(Seojong IC)
- Features of the project: Seeking for balanced development of the national territory through an expressway network connecting the metropolitan area and Gangwon region



2

2 Section 4 of Ulsan-Pohang Express Highway
(Jun. 2009 ~ Dec. 2015)

- Site location: Seokgye-ri ~ Naengcheon-ri, Oedong-eup, Gyeongju-si, North Gyeongsang Province
- Construction scale: 5.41km in total, 4-lane, 2 bridges(408m), 1 tunnel(3.094km), 1 highway service station (Oe-dong Rest Area)
- Features of the project: Preparing for the increasing traffic volume on the eastern coast, securing a logistics support system connecting Daegu ~ Pohang ~ Ulsan ~ Busan, and contributing to a regional balanced development

3 Section 3 of Yongin-Seoul Expressway
- Private Investment Project
(Oct. 2005 ~ Jun. 2009)

- Site location: Suji-gu Yongin ~ Bundang-gu Seongnam, Gyeonggi Province
- Construction scale: 3.94km in total six-lane, 7 bridges(1,259km), 2 tunnels(1,33km), 1 IC(Seo-Bundang IC)
- Features of the project: Complementing Gyeongbu Expressway with traffic congestion due to rapid urbanization in the southern part of Gyeonggi



3



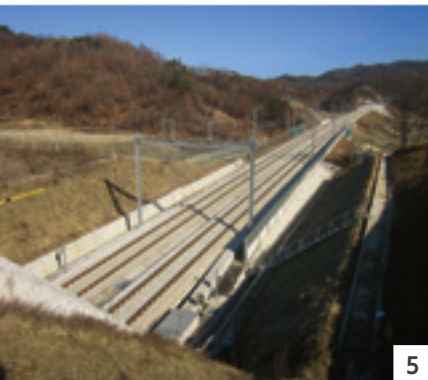
4

4 Yen Vien-Lao Cai Railway Upgrading Project
Construction Package No.3(Mar. 2013 ~ Jul. 2015)

- Site location: Lao Cai Province, Vietnam
- Construction scale: Improvement of the existing railway (L=73.9km) and bridges(5 in total), slope protection, communications & signaling system
- Features of the project: LOTTE E&C's first civil work in Vietnam, contributing to the development of tourism resources and transport of resources in Hanoi-Lao Cai

5 Honam High-speed Railway Section 2-1
(Sep. 2009 ~ Apr. 2016)

- Site location: Gyeryong-myeon Gongju ~ Noseong-myeon Nonsan, South Chungcheong Province
- Construction scale: 8.38km in total, 6 tunnels, 1 station (Gongju Station), 7 bridges(1 PSC BOX, 6 rigid-frame bridges)
- Features of the project: Forming transport and living access between Osong and Gwangju Songjeong to establish a national transportation system with traffic sharing functions by modes of transport that are all inter-connected



5



6

6 Seoul Subway Line 9 Phase 3 Section 920
(Dec. 2009 ~ Mar. 2018 tentative)

- Site location: Seokcheon-dong Songpa-gu (Seokcheon Station) ~ Bangi-dong (South Gate 4 of Olympic Park)
- Construction scale: 1.391km in total(TBM shield tunnel 945m, open cut box 119m, etc.), 1 station(Bangi Sageori St.)
- Features of the project: Phase 3 project of Subway Line 9(expected to open in Oct. 2018 from Sports Complex to Korea Veterans Hospital) where all intervals will be constructed with TBM shielding



7

7 Banghwa Grand Bridge(Dec. 1995 ~ Nov. 2000)

- Site location: Banghwa-dong Gangseo-gu, Seoul
~ Gangmae-dong Goyang, Gyeonggi Province
- Construction scale: 2.559km in total, width of 27.8m, six-lane
- Features of the project: Constructed as the 27th bridge crossing the Han River, which is the starting point for Incheon International Airport Expressway connecting the airport and the metropolitan area



8

8 Eulsukdo Grand Bridge - Private Investment Project (Jan. 2005 ~ Jan. 2010)

- Site location: Sinpyeong-dong Saha-gu
~ Myeongji-dong Gangseo-gu, Busan
- Construction scale: 5.205km in total, width of 25.5~35m, six-lane
- Features of the project: As a maritime bridge, contributing to a smooth flow of trading volumes between Busan New Port and the existing Busan Port as well as logistics cost reduction



9

9 BUSAN LOTTE TOWN Yeongdo Bridge Improvement-Restoration Works(Jul. 2007 ~ Jul. 2014)

- Site location: Jungang-dong Jung-gu
~ Daegyo-dong Yeongdo-gu, Busan
- Construction scale: 0.215km, six-lane, bascule bridge
- Features of the project: Korea's first land connecting bridge and the only single-leaf bascule bridge. After being designated as Monument No.56 by Busan Metropolitan Government in 2006, the number of lanes was expanded and bascule functions were restored



10

10 Section 2 of Jeokseong-Jeongok Highway, Donggi Bridge (Jul. 2009 ~ Jan. 2016)

- Site location: Namgye-ri Gunnam-myeon Yeoncheon-gun
~ Donggi-ri Misan-myeon, Gyeonggi Province
- Construction scale: 2.34 km in total, width of 20.0m, four-lane,
1 bridge(Donggi Bridge: Cable-stayed bridge with
length of 0.4km and width of 20.9m),
1 interchange
- Features of the project: A landmark bridge in Yeoncheon and Korea's longest earth-anchored steel composite cable-stayed bridge. Using the gravity-type anchorage, structural stability is secured and marine pollution is reduced through the erection method on the ground

Water Treatment Systems



1 Pohang Treated Sewage Water Recycling Facilities - Private Investment Project(Feb. 2012 ~ Jul. 2014)

- Site location: Sangdo-dong Nam-gu, North Gyeongsang Province(in the Pohang Sewage Treatment Plant)
- Construction scale: Site area of 16,122m², building area of 2,282m², recycling facilities of 100,000 tons/day, concentrate stream of 9,000 tons/day, supply pipeline of 11.5km (D200~900), Ultra Filtration(U/F) + Reverse Osmosis (R/O)
- Features of the project: Korea's first and largest project to recycle 100,000 tons of water a day as industrial water to resolve water shortage and stably secure water resources in Pohang

2 Private Investment Project of Nongso Sewage Treatment Plant (Feb. 2013 ~ Feb. 2016)

- Site location: Sangan-dong, Buk-gu, Ulsan
- Construction scale: Sewage treatment plant(100,000 tons/day), 2 booster pumping stations, interceptor of 7.5km, recycling pipeline of 2.2km, discharge pipeline of 0.4km, MSBR* + tertiary treatment(biofilm filtration, ultraviolet sterilization)
- Features of the project: A project to expand the sewage treatment capacity resulting from the development of Jung-gu and Buk-gu in Ulsan, contributing to stable sewage treatment, water quality improvement in the discharge area and securing river maintenance water



* MSBR: Modified Sequence Batch Reactor

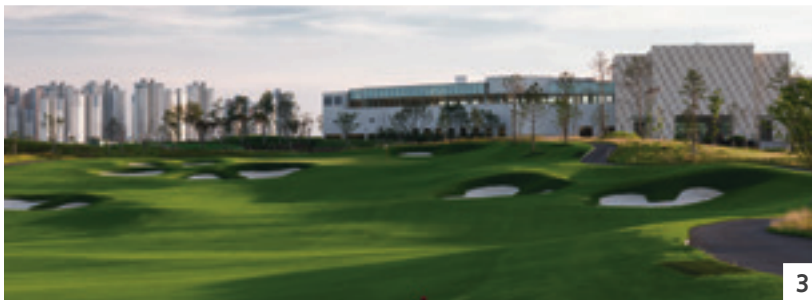
Ports / Golf Courses / Dams / Site Renovation



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5



6

1 General Cargo Terminal Construction of Incheon North Port(1 DWT 20,000ton berth) (Apr. 2007 ~ Dec. 2009)

- Site location: Neighborhood of Wonchang-dong Seo-gu, Incheon
- Construction scale: 1 DWT 20,000ton berth, quay wall of 201m, bank protection works of 225m, land formation of 37,800m², 1 building
- Features of the project: A higher cargo handling capacity in the metropolitan area, contributing to the local development by reducing the logistical cost and traffic congestion, etc.

2 Seetech's Berth Structure Extension Work (#6BERTH) for Daesan Port (Oct. 2012 ~ Oct. 2014)

- Site location: Neighborhood of Daejuk-ri Daesan-eup Seosan, South Chungcheong Province
- Construction scale: 1 cargo handling wharf, 4 breasting dolphins, 4 mooring dolphins
- Features of the project: Shipping and unloading wharf extension work that covers logistical services at the Daesan Petrochemical Complex, contributing to the expansion of a logistical supply capacity

3 Cheongna Bear's Best Golf Club (Sep. 2009 ~ Jan. 2012)

- Site location: Cheongna District Gyeongseo-dong Seo-gu, Incheon
- Construction scale: Total area 1,360,105m², 27 holes, 28 greens, 116 tee boxes, club house
- Features of the project: A golf course to play the best 27 holes out of 290 golf courses designed by Jack Nicklaus(Nicklaus-designed courses include the European Course, American Course and Australian Course)

4 LOTTE Skyhill Buyeo Country Club (Jun. 2010 ~ Apr. 2013)

- Site location: Gyuam-myeon Buyeo-gun, South Chungcheong Province
- Construction scale: Total area 950,640m², 18 holes, 18 greens, 58 tee boxes, club house
- Features of the project: An eco-friendly golf course to take a glimpse of the natural environment and the Baekjae* culture(General Gyebaek Course and King Uija Course)

5 Heightening Work of the Reservoir Embankment for Agriculture at Damyang Lake (Sep. 2011 ~ Mar. 2014)

- Site location: Daeseong-ri Geumseong-myeon Damyang-gun, South Jeolla Province
- Construction scale: Embankment(B=20m, L=306m), overflow weir(L=62m), tailrace (L=293.5m), displaced road (L=1.89km)
- Features of the project: Heightening the existing reservoir by 2m to secure safety of the bank and increasing the flood control capacity, thereby reducing flood damage

6 Specialized Project for Nanji Hangang Park (Jul. 2008 - Jun. 2010)

- Site location: Hongjecheon Stream Sangam-dong Mapo-gu ~ Nanjicheon Stream, Seoul
- Construction scale: Land area of 776,000m², 2 bridges(357m), 1 driveway (57m), 2 building architectures
- Features of the project: Improving accessibility by installing bridges to connect nearby Noeul('sunset'), Haneul('sky') Park and Pyeonghwa('peace') Park as part of the Han River Renaissance Project

* Baekjae: A kingdom located in southwest Korea(18 BC - 660 AD)



**Al Manakher Diesel Engine Power Plant, Jordan(Jordan IPP3)
(Sep. 2012 ~ Sep. 2014)**

- Site location: Al Manakher, Jordan
- Construction scale: 573MW(38 diesel engine generators of 16MW)
- Features of the project: A project where LOTTE E&C conducted EPC in the field of Independent Power Plant(IPP) as the world's largest diesel engine power plant, covering 15% of the power capacity for Jordan
Considering the fuel supply status in Jordan with no endowed resources, power can be generated using diesel and natural gas although heavy fuel oil is the primary fuel source

PLANTS

We are at the forefront of establishing national and industrial infrastructure in diverse fields at home and abroad, which include energy generation projects (community energy supply system, cogeneration, LNG combined cycle power, coal-fired thermal power, diesel engine, and renewable energies including SRF, wind energy and PV); petrochemical (storage facilities for raw materials, product manufacturing in upstream and downstream fields); and industrial plants (tires, steel and food & beverages).

We provide one-stop services as the Project Manager, EPC Contractor and IPP Developer throughout the value chain covering project planning, technical & economic feasibility studies, design and engineering, procurement, construction, commissioning and O&M.



Power Plants



1



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4

1 Al Qatrana Combined Cycle Power Plant, Jordan (Jordan IPP2)(Jul. 2008 ~ Aug. 2011)

- Site location: Al Qatrana, Jordan
- Installed capacity: 377MW(2 units of GT* 130MW, 1 unit of ST* 120MW and 2 units of HRSG* 105T/H*)
- Features of the project: LOTTE E&C's first overseas power plant project(EPC-based), serving as the stepping stone to advance into overseas power generation market

2 Andong Combined Cycle Power Plant (Apr. 2012 ~ Jun. 2014)

- Site location: Gwejeong-ri Pungsan-eup Andong, North Gyeongsang Province
- Installed capacity: 417MW(1 unit each for G/T 277MW and S/T 140MW)
- Features of the project: A power plant that resolved the issue of the energy blind spot in the northern part of North Gyeongsang Province and secured the basis for thermal power supply. The building exterior was designed based on the concept of Korean traditional housing, seeking for cultural harmony. It is the first time that LOTTE E&C is participating in Korea Electric Power Corporation's project

3 Daegu Cogeneration Power Plant (Oct. 2012 ~ Dec. 2014)

- Site location: Yulam-dong Dong-gu, Daegu
- Installed capacity: LNG Combined Cycle Power 415MW (single shaft system)(1 unit each for GT 274MW, ST 141MW and HRSG 150Gcal/h)
- Features of the project: A natural gas-powered cogeneration power plant supplying energy to Sinseo Innovation City in Daegu

4 Seoul Combined Cycle Power Plant 1 and 2 (Oct. 2015 ~ Nov. 2018 tentative)

- Site location: Hapjeong-dong, Mapo-gu(formerly known as Dangan-ri thermal power plant)
- Installed scale: 2 units of 400MW(800MW)(2 unit each for GT 267.5MW, ST 127.9MW and HRSG 256Gcal/h)
- Features of the project: The world's first underground combined cycle power plant project

* GT: Gas Turbine * ST: Steam Turbine * T/H: Ton per Hour
* HRSG: Heat Recovery Steam Generator



5

5 Pangyo Cogeneration Power Plant(Feb. 2008 ~ Nov. 2010)

- Site location: Pangyo Land Development District, Seongnam, Gyeonggi Province
- Installed capacity: 146MW power generating facilities, heating facilities of 175Gcal/h(1 unit each for GT 78MW, ST 68MW and HRSG 300T/H)
- Features of the project: A project contributing to stabilizing the power supply in the metropolitan area where outstanding design has been applied beyond the existing image as unwanted facilities

6 Yeongheung Thermal Power Plants 5 & 6(Apr. 2010 ~ Dec. 2014)

- Site location: Yeongheung-myeon Ongjin-gun, Incheon
- Installed capacity: 2 units of 870MW plants (coal burning, ultra super-critical once-through thermal power plants)
- Features of the project: Eco-friendly power plants using coal(bituminous coal) which is cheaper than LNG and complying with strict environmental regulatory standards, supplying a significant amount of power used in the metropolitan area
The project enabled LOTTE E&C to make forays into construction projects for coal power plants in Korea and abroad by acquiring the track records of over 100MW

7 Gunsan GE4 Coal Fired Power Plant(May. 2013 ~ May. 2016)

- Site location: Soryong-dong Gunsan, North Jeolla Province(in the Gunsan Local Industrial Complex)
- Installed capacity: 250MW(1 unit each for CFBC* Boiler 950T/H and STG 250MW)
- Features of the project: A coal-fired thermal power plant project to increase the amount of energy supply in the Gunsan Local Industrial Complex, serving as the stepping stone for LOTTE E&C to enter the coal-fired thermal power plant market

8 Cogeneration Plant for Gwangju CES / South Jeolla Province (Apr. 2015 ~ Dec. 2017 tentative)

- Site location: Sanpo-myeon Naju, South Jeolla Province
- Installed capacity: 22MW power generation facilities, heating facilities of 45Gcal/h
- Features of the project: A project to procure cogeneration power facilities of Korea District Heating Corporation using solid refuse fuel

9 Cogeneration Plant for Naepo New Town CES (Sep. 2016 ~ Aug. 2019 tentative)

- Site location: Sapgyo-eup Yesan-gun, South Chungcheong Province
- Installed capacity: Phase 1 - 1 unit of SRF power generation facilities of 66MW and 1 unit of HOB 159Gcal/h)
- Features of the project: A project for the Community Energy Supply System fuelled by new and renewable energy sources(waste plastics and wood pellets), which is LOTTE E&C's first investment and development project on new and renewable energies

10 Al Manakher Diesel Engine Power Plant, Jordan(Jordan IPP3) (Sep. 2012 ~ Sep. 2014)

- Site location: Al Manakher, Jordan
- Installed scale: 573MW(38 units of 16MW diesel engine power generators)
- Features of the project: The world's largest diesel engine power plant project(EPC)

* CFBC: Circulating Fluidized Bed Combustion

* SRF: Solid Refuse Fuel



6



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9



10

Petrochemical Plants



1 LOTTE CHEMICAL B Project (Jul. 2009 ~ Oct. 2010)

- Site location: Jungheung-dong Yeosu, South Jeolla Province (in the Yeosu National Industrial Complex)
- Construction scale: Construction of a production plant of Butadiene 130,000MTA*
- Features of the project: EPC project / Butadiene plant

2 LOTTE CHEMICAL P2 Project (Sep. 2010 ~ Jun. 2012)

- Site location: Jungheung-dong Yeosu, South Jeolla Province (in the Yeosu National Industrial Complex)
- Construction scale: Construction of a production plant of PE 250KTA/PP 200KTA* and an automatic warehouse (25,640 cells)
- Features of the project: EPC project / HDPE & PP plant (LOTTE CHEMICAL License)

3 MSR R1 Project, Malaysia (Jan. 2013 ~ Sep. 2014)

- Site location: Johor, Malaysia
- Construction scale: Construction of Poly-Butadiene Rubber 50KTA production plant
- Features of the project: EPC project / Butadiene Rubber plant

4 LPG Tank Project, Jordan (Sep. 2008 ~ Nov. 2010)

- Site location: Zarqa, Jordan
- Construction scale: Installation of 4 units of 2,000 ton LPG storage tanks and subsidiary facility construction
- Features of the project: EPC project / LPG storage tank

* MTA: Metric Tons per Annum

* KTA: Kilo Tons per Annum



Industrial Plants



1

1 LOTTE CHILSUNG LIQUOR's Chugju Beer Factory (Jun. 2012 ~ Oct. 2014)

- Site location: Daesowon-myeon Chungju, North Chungcheong Province
- Construction scale: Construction of beer production facilities (50,000KL)
- Features of the project: Production facilities for 'Kloud', LOTTE CHILSUNG LIQUOR's beer brand



2



3

2 Hyundai Steel's Dangjin Steel Mill (Jan. 2008 ~ Mar. 2011)

- Site location: Songak-myon Dangjin-gun, North Chungcheong Province
- Construction scale: Coking property / sintering (3,138,000 tons/year) / sintering (12,000,000 tons/year) / constructing steel making plants (8,000,000 tons/year)
- Features of the project: Constructing coking property / sintering / steel making plants at the same time, which covers the major process of Units 1 & 2 of Dangjin Steel Mill



4

3 LOTTE CONFECTIONARY's Neman Plant, India (Aug. 2008 ~ Dec. 2010)

- Site location: Chennai, India
- Construction scale: Construction of a production plant for chewing gums, pies and biscuits
- Features of the project: An overseas project implemented along with LOTTE Group's entry into India



5

4 Hankook Tire's Plant 1-2, Indonesia (Jun. 2011 ~ Jul. 2015)

- Site location: Cikarang, Indonesia
- Construction scale: PCR - 15,000 pieces/day / PCR - 16,000 pieces/day (extension work)
- Features of the project: Construction of a tire manufacturing plant

5 LOTTE CHILSUNG LIQUOR's Cheongju Soju Factory (Jun. 2014 ~ Dec. 2015)

- Site location: Naesu-eup Cheongwon-gu Cheongju, North Chungcheong Province
- Construction scale: Construction of soju production facilities (Bottle 1,000 BPM/PET 150 BPM)
- Features of the project: Extension of a production plant for Chumchurum (meaning "like the first time" (pure) in Korean), a soju brand of LOTTE CHILSUNG LIQUOR's

OVERSEAS

LOTTE E&C has project experience in 17 countries in 6 regions i.e. Southeast Asia(Indonesia, Malaysia, Vietnam, Brunei, Cambodia and Myanmar), Northeast Asia(China, Japan and Mongolia), Southwest Asia(India, Pakistan and Bangladesh), CIS(Russia and Uzbekistan), Africa / Middle East(Jordan and Qatar) and Oceania(Australia).

We provide differentiated values to customers and carry on our solid growth momentum based on our strategies of selection and concentration, focusing on flagship products by business area which include high-rise buildings, multipurpose and retail facilities, power plants, petrochemical and industrial plants, ground transportation facilities(roads, railways and subway), water treatment systems, hydro power plants and housing, etc.



Africa / Middle East | Jordan, Qatar



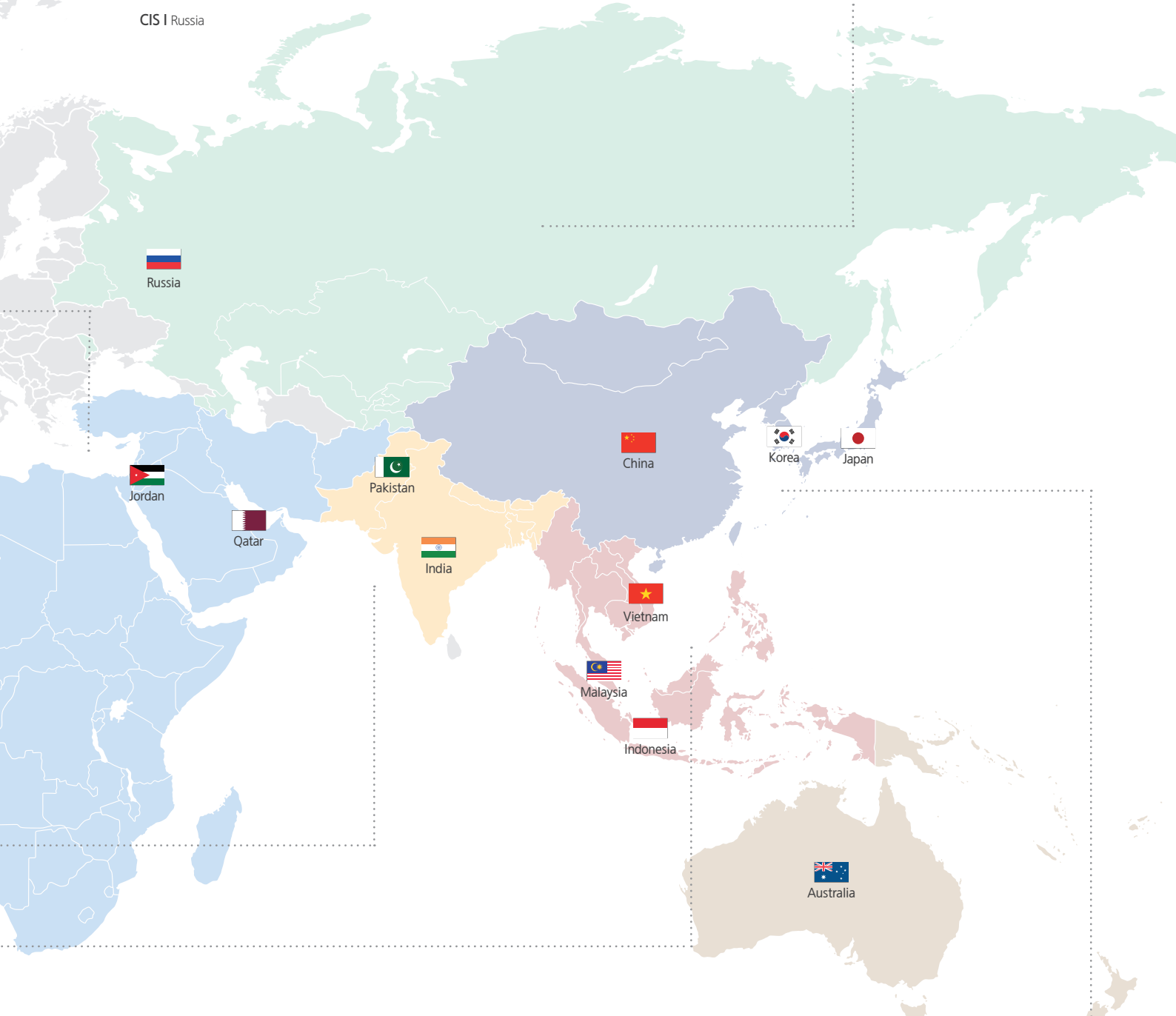
Southwest Asia | India, Pakistan



Southeast Asia | Indonesia, Malaysia, Vietnam etc.



CIS | Russia



Northeast Asia | Republic of Korea, China, Japan

Southeast Asia



1 Phase 2 of Kota Kasablanca, Indonesia (Oct. 2015 ~ May. 2018 tentative)

- Site location: Southern part of Jakarta, Indonesia
- Construction scale: 5 stories below the ground and from 41 to 43 above, total floor area of 365,251m², 2 buildings(1,211units) for the apartments and 1 building for the office
- Features of the project: LOTTE E&C's first architectural project in Indonesia

2 Hankook Tire's Plant 1-2, Indonesia (Jun. 2011 ~ Jul. 2015)

- Site location: Cikarang, Indonesia
- Construction scale: PCR - 15,000 pieces/day, PCR - 16,000 pieces/day (extension work)
- Features of the project: Construction of a tire manufacturing plant

3 MSR R1 Project, Malaysia (Jan. 2013 ~ Sep. 2014)

- Site location: Johor, Malaysia
- Construction scale: Construction of Poly-Butadiene Rubber 50KTA production plant
- Features of the project: EPC project / Butadiene Rubber plant





4

4 Titan Project-T, Malaysia (May, 2011 ~ Oct. 2012)

- Site location: Johor, Malaysia
- Construction scale: TBA* Plant(110KTA)
- Features of the project: LOTTE E&C's first EPC project in Malaysia



5

5 LOTTE CENTER HANOI, Vietnam (May, 2010 ~ Jun. 2014)

- Site location: Hanoi, Vietnam
- Construction scale: 5 stories below the ground and 65 above, height of 272m, total floor area of 253,134m², 258 units for the service residence, 318 rooms for the hotel, commercial facilities, offices
- Features of the project: The first high-rise building constructed by LOTTE E&C abroad, being the first foreign company ever to win the High Quality Construction Prize from the Ministry of Construction and Excellent Site Safety Award from the Ministry of Labor, Invalids and Social Affairs

6 Yen Vien-Lao Cai Railway Upgrading Project Construction Package No.3(Mar. 2013 ~ Jul. 2015)

- Site location: Lao Cai Province, Vietnam
- Construction scale: Improvement of the existing railway (L=73.9km) and bridges(5 in total), slope protection, communications & signaling system
- Features of the project: LOTTE E&C's first civil work in Vietnam, contributing to the development of tourism resources and transport of resources in Hanoi-Lao Cai



6

* TBA: Tertiary Butyl Alcohol

Northeast Asia



1



2



3



4



5

1 LOTTE WORLD Shenyang, China(Nov. 2011 ~ Oct. 2019 tentative)

- Site location: Shenyang, China
- Construction scale: 4 stories below the ground and 43 above, total floor area of 1,516,694m²
- Features of the project: LOTTE E&C's first multipurpose facility development project in China(housing, commercial facilities, offices, a hotel, a theme park, etc.)

2 LOTTE MALL Chengdu, China(Nov. 2013 ~ Dec. 2018 tentative)

- Site location: Chengdu, China
- Construction scale: 2 stories below the ground and 40 above, total floor area of 568,595m²
- Features of the project: LOTTE Group's second landmark project in the western China-Multipurpose facilities comprised of commercial buildings(shopping mall, hypermarket, cinema, office, etc.) and residential buildings

3 Expansion Work for Consular Office of the Korean Embassy in China(Feb. 2015 ~ Jan. 2017 tentative)

- Site location: Chaoyang, Beijing in China
- Construction scale: 2 stories below the ground and 5 above, total floor area of 4,599m²
- Features of the project: A construction project ordered by the Korean government(Ministry of Foreign Affairs)

4 Reconstruction Work of the Office Building and the Official Residence for the Korean Embassy in Japan(May. 2010 ~ May. 2013)

- Site location: Minato, Tokyo in Japan
- Construction scale: Office building(1 story below the ground and 7 above), house(3 stories below the ground and 2 above), total floor area of 17,512m²
- Features of the project: LOTTE E&C's 100th project in Japan, visualizing the image of Hanbok, the Korean traditional costume, exuding subdued charms

5 Construction Work of Mary's Chocolate Factory in Japan (Aug. 2014 ~ Aug. 2015)

- Site location: Chiba, Matsudo in Japan
- Construction scale: 5 above, total floor area of 12,258m²
- Features of the project: A design-build project jointly performed with a local contractor, Shimizu Corporation

CIS



1

1 New Arbat Multipurpose Building, Russia (Sep. 2003 ~ Aug. 2010)

- Site location: Moscow, Russia
- Construction scale: 4 stories below the ground and 21 above, total floor area of 142,641m²
- Features of the project: LOTTE E&C's first building construction project in Russia(a department store, offices, a hotel)



2

2 Moscow LOTTE BUSINESS CENTER (Jan. 2011 ~ Feb. 2013)

- Site location: Moscow, Russia
- Construction scale: 2 stories below the ground and 22 above, total floor area of 58,660m²
- Features of the project: LOTTE E&C's first real estate development project in Russia

3 St. Petersburg LOTTE HOTEL Construction Project Management, Russia(Feb. 2015 ~ Apr. 2017 tentative)

- Site location: St. Petersburg, Russia
- Construction scale: 1 story below the ground and 6 above, 154 rooms, spa, banquet, restaurant, etc.
- Features of the project: A five-star hotel construction project being executed via renovation and construction of the historically valuable architecture at the heart of St. Petersburg, a city listed in the UNESCO World Heritage



3

Southwest Asia and Africa / Middle East



1



2

1 LOTTE CONFECTIONARY's Neman Plant, India
(Aug. 2008 ~ Dec. 2010)

- Site location: Chennai, India
- Construction scale: Construction of a production plant for chewing gums, pies and biscuits
- Features of the project: An overseas project implemented along with LOTTE Group's entry into India

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3

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- Site location: Al Qatrana, Jordan
- Installed capacity: 377MW(2 units of G/T 130MW, 1 unit of S/T 120MW and 2 units of HRSG 105T/H)
- Features of the project: LOTTE E&C's first overseas power plant project(EPC-based), serving as the stepping stone to advance into overseas power generation market

4 LPG Tank Project, Jordan(Sep. 2008 ~ Nov. 2010)

- Site location: Zarqa, Jordan
- Construction scale: Installation of 4 units of 2,000 ton LPG storage tanks and subsidiary facility construction
- Features of the project: EPC project / LPG storage tank



4

5 Gulpur Hydropower Plant in Pakistan
(Sep. 2014 ~ Mar. 2019 tentative)

- Site location: Jammu, Kashmir in Pakistan(Poonch River)
- Construction scale: Power plants of 102MW(2 units of 51MW), dam(H=66.5M, L=205M)
- Features of the project: Acquiring know-how in performing overseas hydropower projects and securing a gateway to advance to the southwestern Asian region



5

6 Elevated and At-Grade Sections of Red Line North in Qatar
(Dec. 2014 ~ Jun. 2018 tentative)

- Site location: Doha, Qatar
- Construction scale: 6.7km in total(over pass of 2.3km, ground section of 1.8km, excavation tunnel of 0.3km, trough of 1.9km, two stations)
- Features of the project: A partnership project with a company with track records in elevated section construction for subway abroad



6

OUR MATERIAL ISSUES

LOTTE E&C has selected five issues based on the materiality test that significantly impact its sustainable management and grab the biggest attention from stakeholders, and has made an in-depth report on them.

46	Six Trends in the Construction Industry
48	Stakeholder Engagement and the Materiality Test
50	Strengthening Future Competitiveness
54	Prevention-oriented On-site Safety Management
56	Response to Climate Change
58	Establishing a Creative Corporate Culture
60	Creating Value with Communities

Six Trends in the Construction Industry

Industrial / Economic Aspect



Trend 01

- ▶ **Domestic** Entry into a low-growth structure found in advanced countries, intensified coupling with the global economy and a greater portion of the cutting-edge soft industries
- ▶ **Overseas** Higher needs in the construction industry in line with the national territorial / economic development plans

The Korean economy is undergoing secular stagnation of an advanced country with intensified coupling with the global economy as seen in advanced countries. Moreover, shifting of the industrial structure puts a greater burden on the soft industries.

Globally, medium-and long-term national territorial development and economic development master plans are crystalized, especially in developing and newly emerging countries. This boosts needs for the construction industry especially for infrastructure, urban development and scale-up of industrial facilities.

Policy / Institutional Aspect



Trend 02

- ▶ **Domestic** Investment decrease in the construction sector expected due to a greater focus on welfare, implementation of short-term economically stimulating investment, and sufficient infrastructure
- ▶ **Overseas** Increased investment in improving people's livelihood post to the Jasmine Revolution and changes in doing business due to vulnerabilities in government finance

Domestically, as social overhead capital has been expanded to a certain extent and the people's interests lie more towards welfare rather than growth, investment in construction is expected to decrease in the medium-and-long-term similar to advanced countries.

By contrast, a different paradigm is shown in developing and newly emerging countries. After the Jasmine Revolution that began in Tunisia in 2010, many countries have scaled up investment in construction to improve the essentials of people's living. However, many of these countries, except for a few that are affluent in energy are lacking in finance and struggling to procure investment resources which consequently brings about changes in the way of doing business for construction companies.

Safety Aspect



Trend 03

- ▶ Increased social interest and concerns about safety
- ▶ Survival of companies with vulnerabilities in safety becoming difficult
- ▶ Intensified safety rules and regulations

As 'safety' has emerged as a significant social issue, there is a greater need for preemptive safety management activities in companies, and related rules and regulations have been also intensified.

Moreover, government institutions and clients further emphasize the importance of safety, and demand continued and greater investments in safety measures.

The construction industry confronts numerous changes in the aspects of industry / economy, domestic and overseas policy, safety, technologies, environment and society / culture. LOTTE E&C is rising as a market leader by preemptively analyzing such changes in trends and devising countermeasures.

Technology Aspect



Trend **04**

- ▶ **Domestic** Enhanced technological prowess of medium-sized enterprises and local companies abroad where construction companies have advanced
- ▶ **Overseas** Competencies for technology and business management rising as a differentiating factor for competitiveness

Due to upgraded technological competencies in the industry, large construction companies have established know-how on overall method development, VE cost reduction, project management, etc.

This enhances their differentiated competitiveness, while strengthening technological development by collaborating with external expert organizations including universities and research centers.

Environment Aspect



Trend **05**

- ▶ A paradigm shift toward the environment including climate changes
- ▶ Stronger needs for the roles of construction companies to heal the world's environment
- ▶ A need to select business methods with a lower environmental load
- ▶ Increased business opportunities related to the environment expected

Due to multiple earthquakes and climate changes, construction companies are expected to further focus on their roles as healers of the environment beyond a passive concept by constructing green buildings, etc.

Moreover, they are required to make choices with the smallest environmental load in the perspective total life cycle, ranging from portfolio strategies to planning, designing, constructing and doing maintenance work for individual projects.

Socio-cultural Aspect



Trends **06**

- ▶ A greater need for transparency, ethical awareness and the roles of corporate citizens
- ▶ Changes in needs in the housing market, etc. amid changes in the population and family structures

In corporate management, securing transparency, ethical management and fulfilling the social responsibilities as corporate citizens have become increasingly important.

Amid changes in the population and family structure with the increase in the number of the elderly people, nuclear families, and a consumers below 40, needs for housing products and purposes for buying a house have diversified.

Stakeholder Engagement and the Materiality Test

Step 1. Devising an Issue Pool of Stakeholders

Issues of materiality are selected through various channels, and an issue pool has been formed accordingly.

Methods of Devising an Issue Pool

Analysis of internal policies and documents

Interviews with departments related to sustainable management

Stakeholder surveys

Media research

Benchmarking of top-notch companies

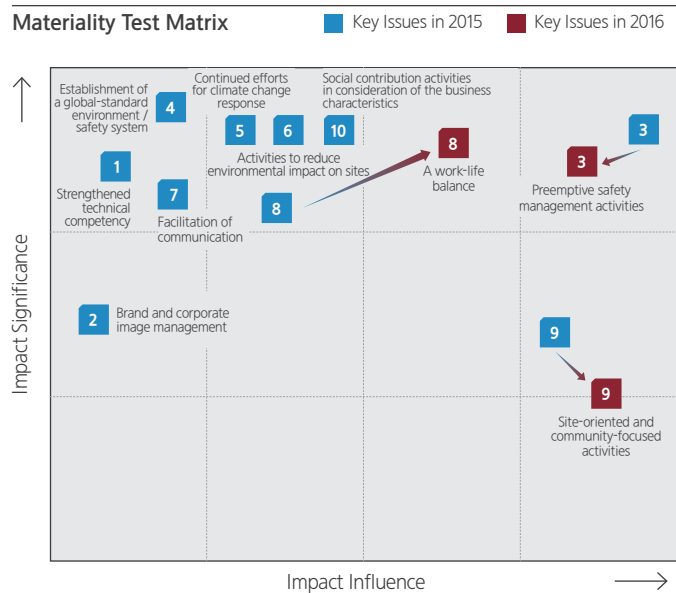
Analysis of international standards

Step 2. Evaluation of the Issues and Selection of Issues of Materiality

The materiality test was conducted for issues that stakeholders are highly interested in, considering the relevance with sustainable management and their impact on sustainable management.

Issues of materiality were selected based on the evaluation results, and used for the Sustainability Report.

Materiality Test Matrix



LOTTE E&C's Stakeholder Communication

LOTTE E&C reflects stakeholders' feedback throughout the entire management activities.



In order to identify stakeholders' interest and issues and make immediate responses, we have set stakeholder communication channels online and offline to gather their feedback.

Step 3. Setting Strategies to Respond to Each Issue

LOTTE E&C has set response strategies and goals for issues of materiality, and conducts activities for sustainable growth.

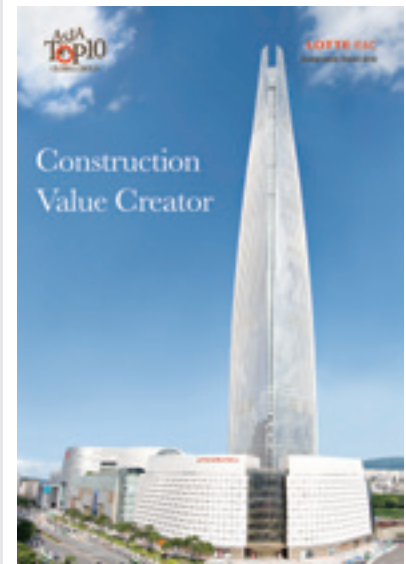
- Activities to strengthen competitiveness
- Activities to respond to safety management and climate change
- Activities of generating value with employees and communities

LOTTE E&C's Responses for Each Issue of Materiality

Material Issue	Issue	GRI Aspect	Page	Boundary
Strengthening Future Competitiveness	1 Strengthened technical competency	Non-GRI	50, 51, 91-94	Internally and externally
	2 Brand and corporate image management			
Prevention-Oriented On-site Safety Management	3 Preemptive safety management activities	Industrial safety and healthcare	54, 55, 66, 67	Internally and externally
	4 Establishment of a global-standard environment / safety system			
Climate Change Response	5 Continued efforts for climate change response	Energy, emissions	56, 57, 63-65	Internally and externally
	6 Activities to reduce environmental impact on sites			
Formation of a Creative Corporate Culture	7 Facilitation of communication (communication management)	Labor-management relationships, complaint handling in labor practices, complaint handling in terms of human rights, non-discrimination	58, 59, 68-71	Internally
	8 A work-life balance			
Creating Values for Communities	9 Site-oriented and community-focused activities	Communities, direct economic effects	60, 61, 84-86	Internally and externally
	10 Social contribution activities in consideration of the business characteristics			

Step 4. Publishing the Report and Listening to Stakeholders' Feedback

After publishing the report, we take feedback from stakeholders on activities and performance of sustainable management, and reflect it in corporate schemes and management activities.



LOTTE E&C Sustainability Report 2016



Customers

- Operation of the LOTTE CASTLE website with improved customer convenience (Same contents available in PC and mobile versions)
- Operation of the Happy Call at all times

- Reflection of customer needs
- Revitalization of customer communication
- Boosting quality

Communities

- Volunteer works in each project area both home and abroad(Charlotte Volunteer Group)
- Operation of model social contribution activities
- Management of a program on educational donation

- Conducting community-focused social contribution activities
- Revitalization of employees social contribution activities

Issue 1

Strengthening Future Competitiveness

MATERIALITY OF THE SELECTED ISSUES

In order to proactively respond to the rapidly changing construction market and establish a basis for sustainable growth, we launched Competitiveness and Innovation Team within the Strategic Planning Department in May 2014. We also have established and practiced competitiveness enhancing measures in each field in cooperation with each division i.e. housing, architecture, civil works, plant and overseas. Measures to strengthen future competitiveness were established by benchmarking leading construction companies abroad and domestic competitors, and comparing our current status with theirs throughout the value chain in the construction industry in areas including marketing, sales, design, quotation, procurement, construction and business management. We plan to continuously review action plans by finalizing targets and tasks to fulfill, supervising activities and establishing timelines.

Housing

LOTTE CASTLE has won the grand prize from Korea Service Awards by the Korean Standards Association(KSA) for 15 consecutive years as it has adopted a branded apartment concept for the first time in the Korean housing market. It has led the residential culture in Korea in various manners including in-house projects, redevelopment / reconstruction and subcontracting.

The housing market in Korea has witnessed fundamental changes in its paradigm with the increase in the number of customers in their 30s to 40s, increase in nuclear families, and an aging population leading to increased needs for housing to play the role as a living place rather than merely an investment target.

With this in mind, the LOTTE CASTLE brand has realigned its framework for competitiveness. In 2014, we redefined its brand identity in conjunction with a global brand consulting firm, covering missions and visions for the brand to pursue. We put in place processes to research and reflect customer needs in a preemptive manner throughout the entire areas of marketing, design, construction and post management.

In 2015, we have newly upgraded our design based on the established brand identity.

We set the new design identity as 'Modern Legacy - Evolving from the Classic', reinterpreting the fancy and decorative elements of the past in a light and refined manner. By doing so, we are pursuing modern, simple and practical design while inheriting our classical strengths at the same time.

LOTTE CASTLE's new design has been applied gradually in new projects from 2016.

Directions to Strengthen Competitiveness in Housing

LOTTE CASTLE Dominating the Top Rank with its Brand Power



Risks

- Changes in the cycle of the housing market
- Changes in the major customer groups and the population / household structure
- Market stabilization measures including strengthening of mortgage regulations of the government, etc.

Opportunities

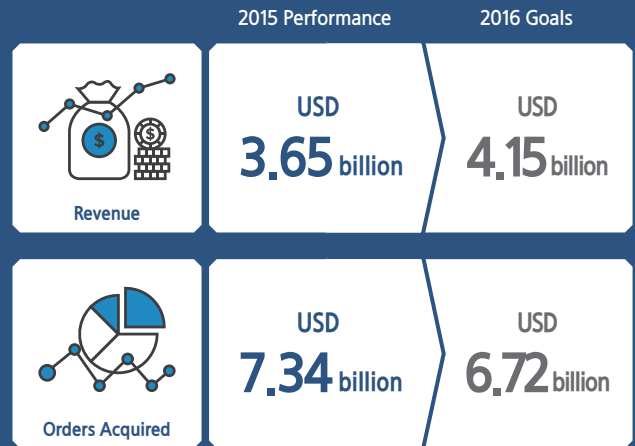
- LOTTE CASTLE's exclusive brand power
- Realigning the brand and design identity in response to changes in target customers in the market
- Advancing into areas of growth engines including rental housing

- Received the grand prize in the apartment category from Korea Service Awards for 15 consecutive years(2016.07)
- Ranked fourth in the apartment category in the National Customer Satisfaction Index(NCSI)(2016.06)

MAJOR PERFORMANCE AND GOALS

APPROACHES TO THE ISSUES

- Strengthening the brand power of LOTTE CASTLE
- Achieving the top-notch level in high-rise buildings and multipurpose and retail facilities
- Enhancing EPC process and differentiating competencies
- Increasing competencies for implementing ground transportation facilities and water treatment systems
- Focusing on key products for feasible overseas projects

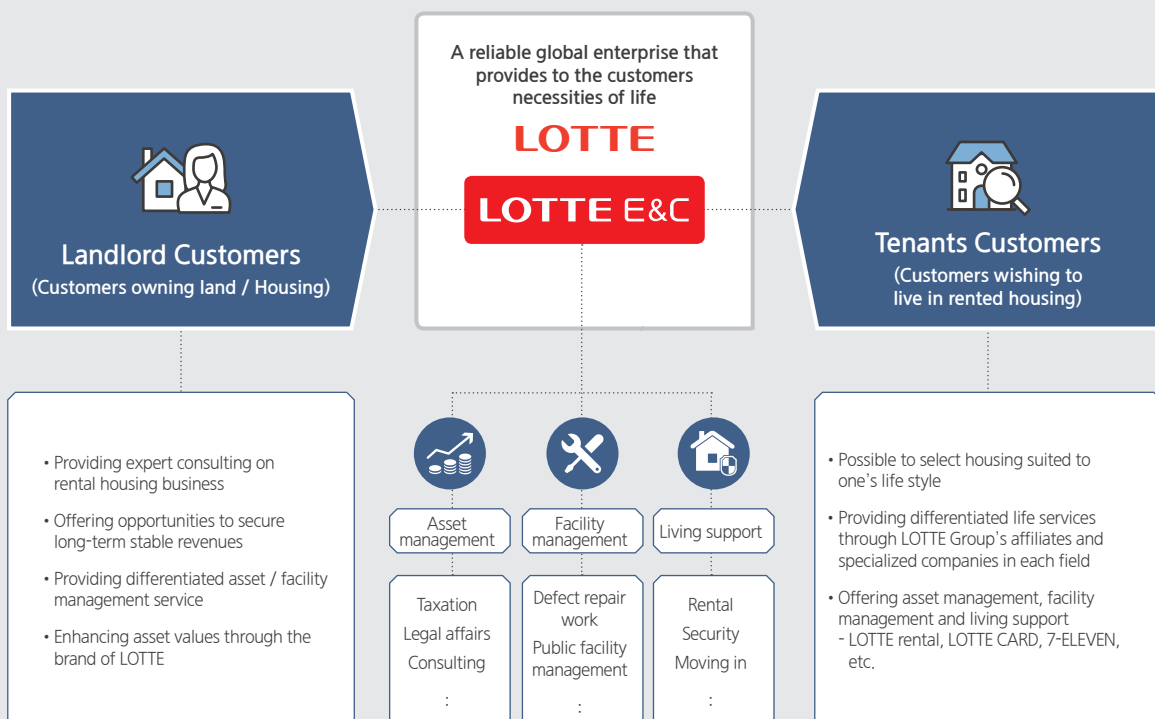


And LOTTE E&C is leading the industry by providing 'New Stay', an enterprise-led rental housing business, and by establishing the housing rental management service system.

With this profit-oriented business during the low-interest-rate trend, we are striving to respond to the market where the proportion of monthly rent payment is on the rapid increase (compared to long-term lease on a deposit basis), and to provide safe and convenient living environment to customers in need of housing.

In order to meet the various needs of customers who own land or housing and wish to run the rental business, LOTTE E&C provides total service package from project planning/development to construction and post-construction rent management and etc. In addition, we are putting our utmost efforts to expand the practical and convenient housing culture by developing products and supportive services suited to each life style of the tenants.

Strengths of LOTTE E&C's Rental Housing Business



Architecture

We will intensify our technological prowess for high-rise buildings based on our experiences with LOTTE WORLD TOWER which will be completed in 2016, and take part in domestic and overseas projects of LOTTE Group's affiliates including LOTTE HOTEL and LOTTE SHOPPING. This will make the already established project execution competencies even more systematic. As a result, we will rise higher as a top-notch construction company in the field of multipurpose and retail facilities using our expertise in construction of high-rise buildings at home and abroad.

With regard to high-rise buildings, the lowest price bidding is the norm among construction companies with relevant construction experiences. We offer differentiated services including project planning, pre-construction services to review adequacy of technologies, methods and cost, tenant marketing, project management, construction and post-construction management.

As for multipurpose and retail facilities, our multi-faceted experiences are proven by domestic and overseas projects as well as LOTTE WORLD TOWER, development of promising projects in consultation with affiliates in LOTTE Group, inducement of tenants in advance, business planning including permit & approval, feasibility study, design & engineering, construction and maintenance.

Civil Works

We have strengthened project model-specific planning, feasibility studies and technologies in various forms of business schemes including build-only, turnkey, BTL, BTO and PPP. Here, we have a particular focus on marketable and differentiated products including ground transportation facilities such as roads, railways and subways, site renovation, water treatment systems and ports, all of where we have abundant experience and strengths.

For ground transportation facilities, in particular, we have increased our competencies for long-span bridges and tunnels. We have developed various water treatment technologies such as water supply, water cleaning and wastewater treatment, both exclusively at our own Technology Research Institute and jointly with external specialized companies and institutions. We are striving to exert our differentiated competitiveness driven by technological prowess at home and abroad.

Directions to Strengthen Competitiveness in Architecture

Leader in High-rise and Multipurpose Facilities



Risks

- Intensified price competition among companies with high-rise building technologies
- Standardization of technologies among construction companies
- Intense competition in the general building sector at home and abroad
- Risks in executing business depending on the level of localization abroad

Opportunities

- Increase in the number of mega cities due to urbanization (over 10 million)
- A higher demand for high-rise buildings, multipurpose / retail facilities for efficient utilization cities
- Having experiences throughout the entire processes of business planning, construction and management of high-rise buildings

Directions to Strengthen Competitiveness in Civil Works

Securing Differentiated Competitiveness in Ground Transportation and Water Treatment Systems



Risks

- Shrinkage in the market scale due to the saturated infrastructure stock
- Intensified competitions abroad
- Difficulties in maintaining competitive advantage without differentiated technologies and business competencies

Opportunities

- Increasing demand for investing in infrastructure in developing and newly emerging countries
- Ground transportation and water treatment markets, where we have competencies, are on the growth

Plants

Our plant business, making foray into the fields of power plants, petrochemical and industrial plants, has strengthened our competencies by sophisticating the EPC process including project exploration, design, procurement, construction and project management, and by securing and developing personnel in leaders' level.

As for the power plant business, we have built our global capacity through diverse project implementation methods such as project exploration and feasibility studies, financing-involved IPP, EPC and build-only for LNG cogeneration, coal-fired generation and diesel internal generation, as well as expanding to renewable energy sector such as SRF(Solid Refuse Fuel), wind energy and photovoltaic solar energy in order to respond to the fast-changing power plant market both home and abroad.

For petrochemical and industrial plant works, we will focus on improving our capacity for the higher value-added petrochemical products such as special rubber, as well as steadily expanding our strong market including food & beverage and tire production.

Overseas Works

Unlike our competitors home and abroad, we have improved our competitiveness in a differentiated way by localizing in prioritized countries where LOTTE Group's affiliates have entered into.

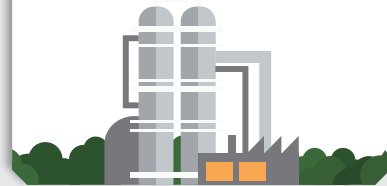
In 2014, we have reestablished our business strategies in LOTTE Group's six key target countries, i.e., Vietnam, Indonesia, Russia, Pakistan, China and Japan, and have successfully reinforced local talent for marketing and engineering in Vietnam and Indonesia.

In the year 2015, additional market researches were performed in detail on Cambodia, Myanmar and etc.

As overseas projects accompany not only opportunities but also great risks, our focus has not been on short-term external growth but on strengthening our capacity all throughout marketing, sales and project implementation under the policy of maintaining sound and stable growth to secure future growth engines.

Directions to Strengthen Competition in Plants

Differentiating EPC and IPP in the entire power plant sector, and strengthening the higher value-added petrochemical plant sector



Risks

- Power Plants:
 - Possible shrinkage in new investment due to the sufficient electricity power reserve rate
 - Restrictions on construction of new coal-fired thermal power plants due to climate changes including fine dust increase
- Petrochemical Plants:
 - Limitation of the domestic captive market and features of the cycle in the global market

Opportunities

- Power Plants:
 - Continued demand for investment in developing and newly industrialized countries amid economic and industrial development
- Petrochemical Plants:
 - An increasing need for higher value-added petrochemicals in the global market

Directions to Strengthen Competitiveness in Overseas Works

Focusing on prioritized target countries(LOTTE Group's target and their neighboring countries) with key products for feasible projects



Risks

- Intense competition with domestic, international, and local companies
- Increase in self-financing projects due to financial problems in target countries
- Possibilities of major insolvencies from contractual and construction risks

Opportunities

- Continued growth of the construction industry in developing and emerging countries owing to economic and industrial development
- Utilization of brand awareness in LOTTE Group's target countries
- Improvement of localization capabilities from implementing LOTTE Group-related projects

Issue 2

Prevention-oriented On-site Safety Management

MATERIALITY OF THE SELECTED ISSUES

Safety accidents might not only significantly hurt corporate management but also claim precious lives and destroy happiness of a family.

We realigned and complemented the prevention-oriented safety management process. Meanwhile in 2015, we declared safety management as one of the five management principles, deeply rooting the safety-first culture.

APPROACHES TO THE ISSUES

- Enhancing safety inspection
- Establishing a culture for on-site safety management

Strengthening the Safety Management System

| Expanding the Implementation of Safety Inspection

LOTTE E&C prevents critical disasters and safety accidents through intensive safety inspection throughout site management. We, in particular, induce systematic management activities to prevent on-site disasters by intensifying inspection on whether or not the safety and health management system is implemented. Due to higher risks of accidents resulting from eased tension of workers on weekends or holidays and absence of oversight of supervisors, inspection on off-days has been scaled up.

In 2015, a total of 578 safety inspections were carried out, that is, 4.2 times per site. Off-day inspection was conducted 70 times. Two defective sites were detected, and their safety management system was fully realigned.

| Operation of the Safety Street Light System

The safety street light system launched in 2016 was designed for employees to be easily aware of the safety level of each site. To this end, evaluation takes place based on the three criteria - systems, administration and execution - upon conducting regular safety inspection for each site, and the safety levels per site are expressed in four colors depending on the score. Execution of the system seeks for upgrading of safety levels of all sites: benefits are given to excellent sites and safety level upgrading activities take place in weak sites.

For sites with the Green(A) Grade, routine safety inspection of the headquarters' Health, Safety and Environment Team is exempted, and if kept for three consecutive times, the CEO's commendation is awarded. Sites with low grades - Yellow(C) and Red(D) - receive safety inspection and guidance of the headquarters and external specialized institutions until their levels reach Green(A) and Blue(B). For sites in the Red(D) Grade without improvement for three months or higher, their project manager and the head of their safety team are replaced.

The Safety Street Light Scoring System

Type	A	B	C	D
Score	86 points or higher	80~85 points	70~79 points	Less than 70 points
Measures	<ul style="list-style-type: none"> • Incentivizing by exempting the routine safety inspection • Awarding the CEO commendation upon maintaining it for three consecutive times 	<ul style="list-style-type: none"> • Implementing regular and routine safety inspection 	<ul style="list-style-type: none"> • Implementing monthly safety inspection and guidance of the headquarters and external specialized institutions until reaching Grade A or B 	<ul style="list-style-type: none"> • Implementing monthly safety inspection and guidance of the headquarters and external specialized institutions until reaching Grade A or B * But upon being stagnant in Grade D for three months or more, project manager and the head of their safety team are replaced.

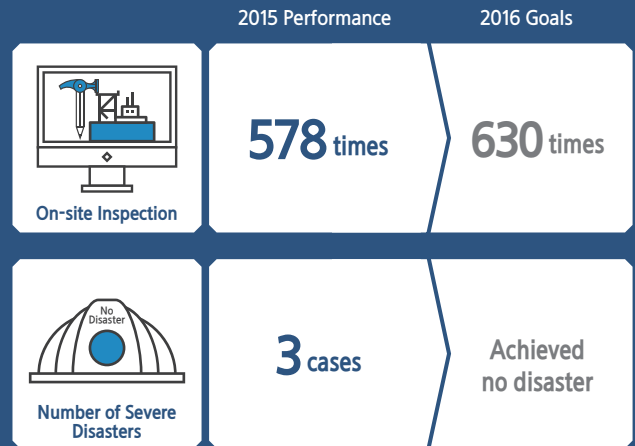
RISKS

- Increasing social interest in safety and stricter regulations on punishment
- No survival of companies failing to comply with safety standards

OPPORTUNITIES

- Minimizing personnel and property damage through accident prevention
- Enhancing the corporate image and brand value through safety management

MAJOR PERFORMANCE AND GOALS



| Strengthening Technical Guidance for Small Sites

Small sites with no safety managers allocated intensively experience 74% of total construction site disasters, and the figure is on the rise. Compared to large ones, they have relatively poor safety facilities and their management system.

Therefore, we support the setup of a safety management system once a site is established in order to block safety-blind spots, and perform mentoring services by an adjacent site once construction begins, and dispatches a proprietary workforce for technical guidance on a regular basis. For high-risk sites, in particular, personnel and logistical support is provided for safety facilities while safety inspection is consigned to outside specialized agencies.

Establishing a Culture of Safety Management for Sites

| Regularly Organizing a Seminar on Safety Construction before Groundbreaking

We regularly organize a seminar on safety construction before groundbreaking to prevent potentially hazardous materials or risk which might occur during construction work through prior inspection and devise plans for safe operations.

Safety risks which might lead to large disasters are preemptively responded to and managed. We manage the adequacy of construction plans, large equipment management plans, and temporary and safety facility installation plans.

| Expanding Implementation of the Safety Communication Day

In 2016, we changed the existing Safety Inspection Day into the 'Safety Communication Day' in order to strengthen on-site support for spreading the enterprise-wide safety culture and facilitating communication between the headquarters and sites. The previous event organized by the CEO and the division heads has been expanded to be attended by all employees and team directors.

The event of the 'Safety Communication Day' included the joint labor-management inspection to discover and remove on-site risks and meetings on safety and health for win-win safety management along with CEOs of partners. In particular, we improve unreasonable institutions and develop new policies by allocating a time to listen to employees' suggestions and complaints on safety on all sites.



Attendance of the CEO for site inspection

Issue 3

Response to Climate Change

MATERIALITY OF THE SELECTED ISSUES

The Korean government is required to reduce 37% of Business As Usual (BAU) greenhouse gas emissions projection by 2030 in accordance with the Paris Agreement adopted at the Conference of the Parties (COP 21) to the United Nations Framework Convention in December 2015. The extent of emissions in the construction industry is minimal compared to other industries, but because its emission inducement coefficient is high, activities to reduce GHG are critical. A demand for the disclosure of related information and activities is rising amid stricter laws and regulations including the GHG and Energy Target Management Scheme implemented in 2011 and the Emission Trading Scheme adopted in 2015.

APPROACHES TO THE ISSUES

- Establishing infrastructure for climate change response
- Strengthening GHG and energy management

Establishing Infrastructure for climate Change Response

| Establishing the GHG and Energy Management System

According to Article 29 of the Enforcement Decree of the Basic Act on Low Carbon Green Growth, LOTTE E&C was designated as a company for GHG* and energy target management. So, we have taken part in reducing GHG and energy based on management of the amount of energy usage, action plans and track records.

* GHG: greenhouse gas

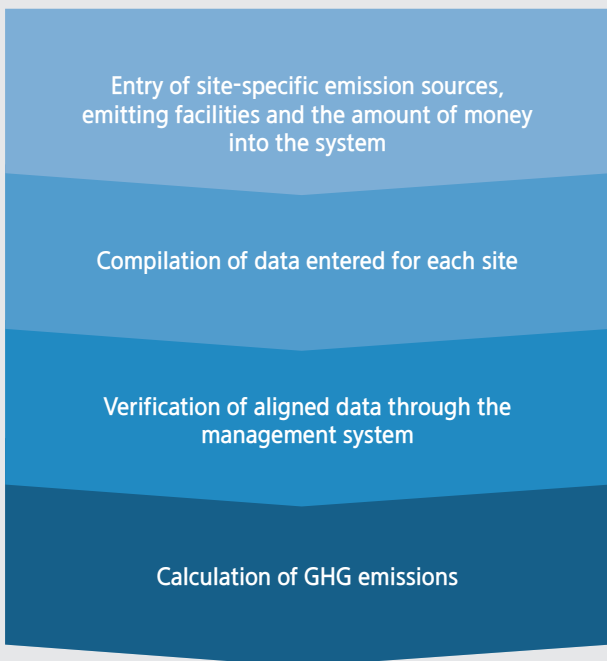
In 2014, in particular, we established a 'greenhouse gas and energy management system' to make preemptive responses to GHG emission trading as well as to systematically manage GHG emissions and the amount of energy usage.

The system has been up and running since 2015. This enables us to easily manage reliable data on GHG and energy emissions, and identify emission sources and facilities. We plan to extend support for GHG and energy management in the supply chain by identifying the organization of partners and the boundaries of their operation.

| Establishing the GHG Reduction Guideline

We produced and operate the 'GHG Reduction Guideline' to lower GHG emissions. Based on the guideline, we conduct activities such as promoting energy saving rules to raise interest among all employees on GHG reduction and enhance their environmental awareness.

Management Procedure for the GHG and Energy Management System



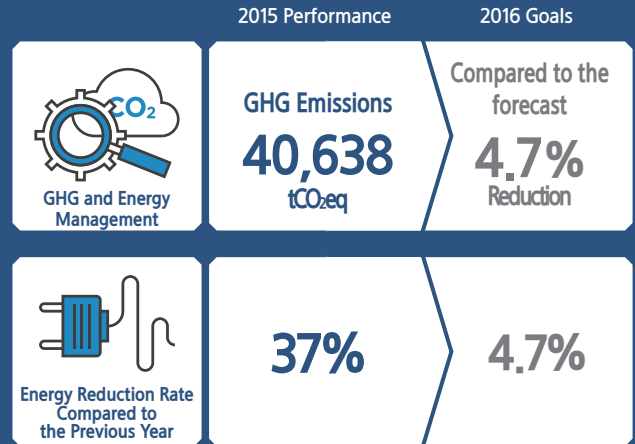
RISKS

- A higher demand for information disclosure on environment-related corporate activities
- Obligations to reduce GHG levels as the GHG target management system has been implemented

OPPORTUNITIES

- Raising corporate value and expanding business opportunities by acquiring various environment-related certifications
- Inducing cost reduction effects by reducing energy usage and GHG emissions

MAJOR PERFORMANCE AND GOALS



Strengthening GHG and Energy Management

| On-site Energy Management

Due to the nature of the construction business, most of the energy usage is generated from sites where construction equipment is used. That is why we practice division-specific energy saving activities by reducing the amount of unnecessary energy usage on sites by setting energy reduction goals and measures to save energy.

In 2016, we plan to post the GHG emission status on the information system to manage sites with a high amount of GHG emissions on semi-annual basis, and conduct evaluation based on site-specific GHG emission reduction rate.



777TJ
Amount of energy used

| GHG Emission Evaluation and an Integrated Certification System Setup

In order to cater to the national efforts to reduce GHG emissions, we have taken part in research to evaluate GHG emissions and to establish an integrated certification system.

It is a national policy research assignment with participation from seven institutions including Construction and Economy Research Institute of Korea and Korean Institute of Educational Environment organized by Hanyang University. Our role was to establish a database for GHG emissions for major materials based on the architecture of the building, utilizing our construction track records for various apartments, commercial facilities and high-rise buildings.

| Operating the lifecycle Environmental Load Evaluation System

LOTTE E&C evaluates CO₂ emissions generated from the buildings' lifecycle through the LOTTE Carbon Assessment System(LOCAS), an evaluation system on environmental load throughout the buildings' lifecycle. We use LOCAS as an indicator for eco-friendly performance, which was applied for Shindongbaeg LOTTE CASTLE Eco, Yongin, reducing GHG emissions by 20% per unit area.

This can be translated as a reduction of approximately 150,000 tons of CO₂ during the general apartment lifecycle of 40 years, which is almost equal to the formation of a forest worth half the size of the Yeouido. In 2014, The LOCAS acquired an international patent(registration number in the U.S.: US 8,645,183 B2), having its excellence recognized worldwide.

Issue 4

Establishing a Creative Corporate Culture

MATERIALITY OF THE SELECTED ISSUES

A 'corporate culture' is the basis to determine employees' values, way of thinking and acts. It doesn't change easily but once established successfully, it serves as an exclusive core competency for a company. We unfold various activities to establish a creative corporate culture in the company level which will help us to leap higher as a global player.

APPROACHES TO THE ISSUES


- Strengthening labor-management cooperation
- Facilitating a corporate culture

Strengthening Labor-Management Cooperation

| Operating the Labor-Management Council

Employees and the management seek for labor-management relations based on participation and cooperation respecting each role on equal footing.

We organized the labor-management council with participation of five representatives from the employer side and five representative workers, on a regular basis to share critical agenda on employees' welfare, wage, health, safety and others, through which labor-management harmony is forged along with strong trust. Upon critical changes in management, the matters are immediately notified to employees.


Major Agenda for the 2015 Labor-Management Council

- Providing gifts of encouragement for achieving management goals
- Increasing the loan ceiling and reducing the interest rate for the in-house welfare funds
- Declaring and managing a creative labor-management culture
- Acquiring the family-friendly certification, etc.

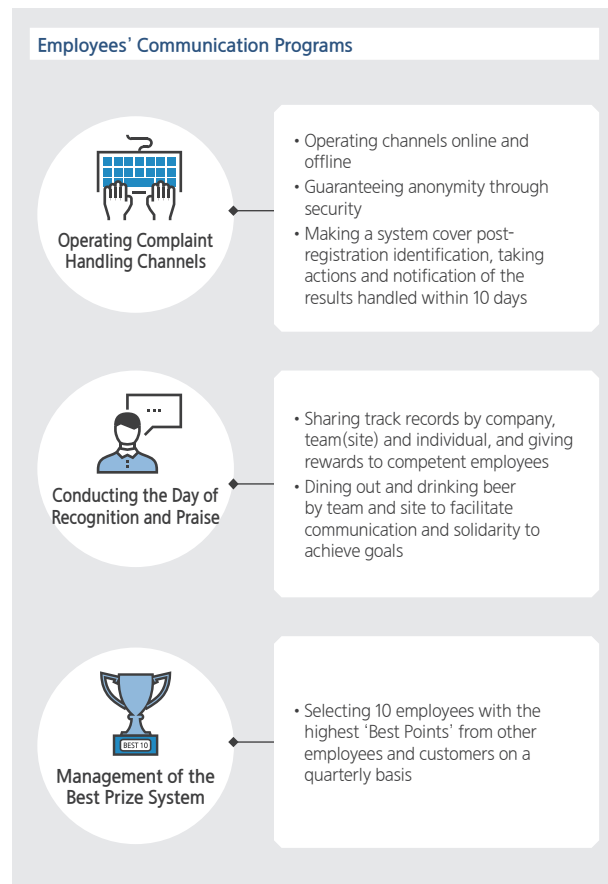
| Strengthening On-site Communication

LOTTE E&C strengthened on-site communication to boost understanding on sites, listen to site-specific complaints and discussions, and devise measures for improvement in order to facilitate communication between the headquarters and sites.

We conduct safety-focused activities where executives and team leaders of the headquarters visit sites and conduct on-site safety inspection. On the Sites' Day, they listen to feedback and complaints on sites. On the Support for Completion of Construction, executives of the related division at the headquarters and assistant managers and above are divided into teams. They visit sites where completion is near, conduct a clean-up and build network with site employees.

| Various Communication Programs

We continuously carry on with the existing diverse communication activities besides strengthening of on-site communication in order to transparently share management activities and facilitate communication among employees.



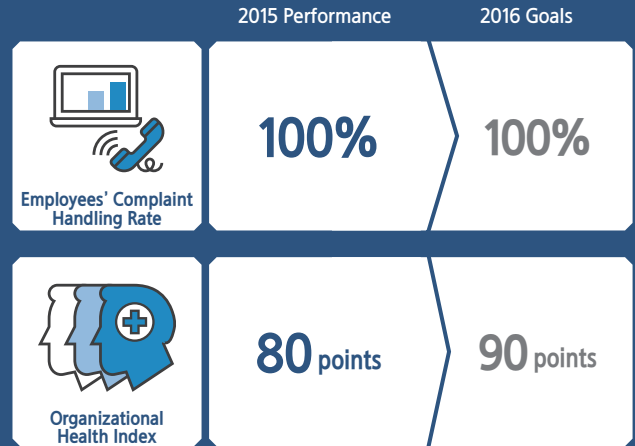
RISKS

- Leakage of talented workforce and low morale among employees due to a rigid corporate culture
- Low efficiency due to a lack of communication

OPPORTUNITIES

- Contribution to higher employee competency and value creation
- Generation of synergies based on free communication and collaboration

MAJOR PERFORMANCE AND GOALS



Facilitating a Corporate Culture

| Operating a Task Force for a New Culture

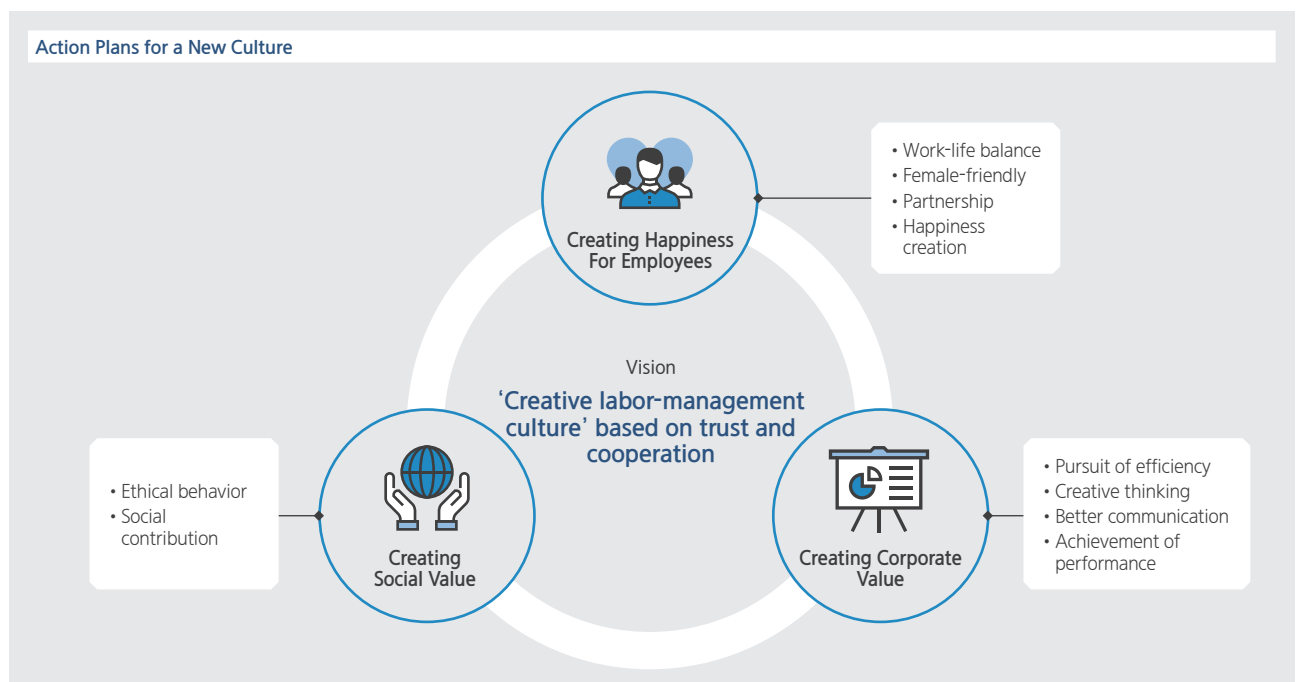
LOTTE E&C operates a task force for a new culture to inspect a corporate culture and devise tasks for improvement. The task force consisting of four worker members and four employer members from the labor-management council establishes a roadmap for developing a corporate culture, and implements devised strategies and action plans.

We devised 18 action plans under the vision of 'creative labor-management culture' based on trust and cooperation and continue to unfold relevant activities.

| Diagnosing Organizational Effectiveness

We conduct company-wide diagnosis on organizational effectiveness to raise company-wide institutional and cultural effectiveness and contribute to business performance by using the results.

Diagnosis of organizational effectiveness consists of 'Engagement Index' and 'Organizational Health Index'. The 2015 results reveal that LOTTE E&C gained 77 points for 'Engagement Index' and 80 points for 'Organizational Health Index'(out of 100 points), ranking fifth among 40 affiliates in the Group. We will further intensify our basis for continued performance generation, and continue to complement and strengthen any of our shortcomings.



Issue 5

Creating Value with Communities

MATERIALITY OF THE SELECTED ISSUES

Given the nature of the construction industry where sites are operated across the country based on local communities, communications with such communities are of utmost significance and at times directly impact the success or failure of the project. LOTTE E&C communicates with local communities and creates social values by going beyond mere donation activities to strategically initiate social contributions that leverage our own strengths.

APPROACHES TO THE ISSUES

- Community-focused social contribution activities
- Expansion of the employee engagement

Community-focused Social Contribution Activities

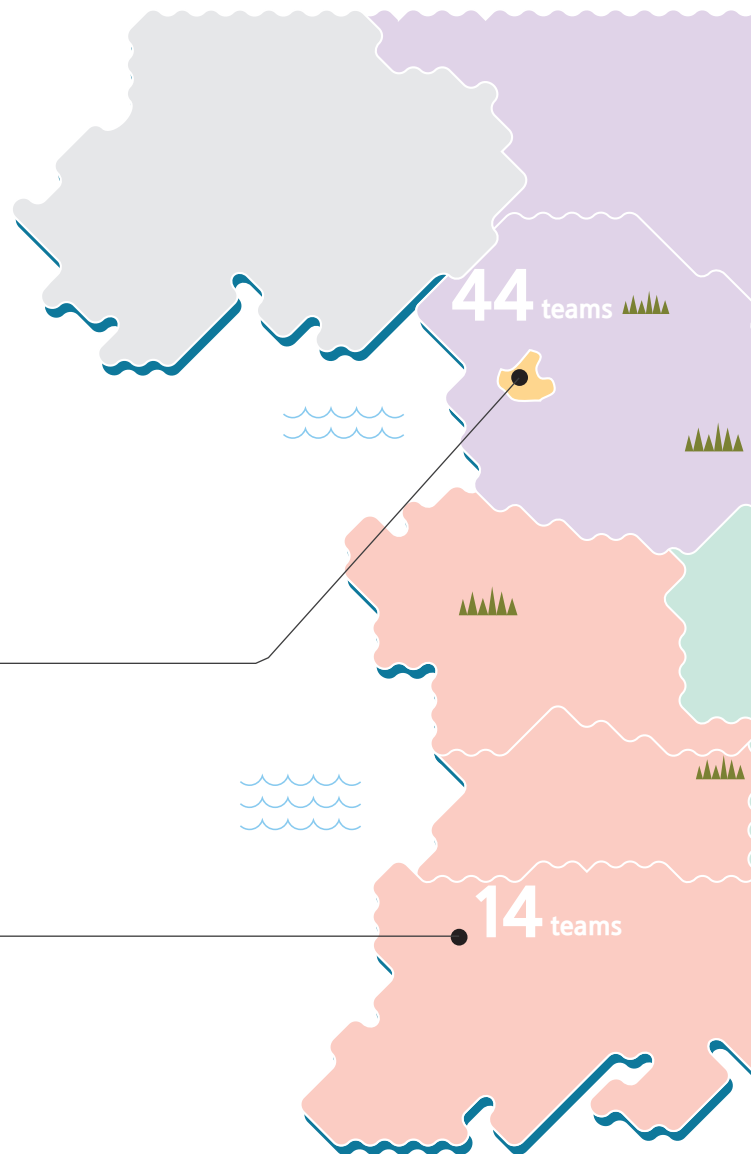
| The Campaign of 'Managing One Volunteering Team by One Site and by One Department'

LOTTE E&C carries out the campaign of 'managing one volunteering team by one site and by one department.' 122 volunteering teams up until now have been voluntarily formed at the headquarters and sites and conduct activities such as improving residential facilities, providing cultural experiences, and extending service-based volunteering for low-income people.

| Social contribution Activities Focusing on Overseas Sites

As overseas projects expand, we conduct activities such as improving the residential environment and supporting the disadvantaged by fully reflecting local needs mostly in Vietnam, our major overseas markets.

Activity Status of Volunteering Teams



Volunteering Teams in Seoul



Major Activities

- Improving village facilities
- Visiting welfare facilities
- Donating talent and giving out daily goods, etc.

Volunteering Teams in Chungcheong and Honam



Major Activities

- Cleaning up the local environment
- Visiting welfare facilities
- Supporting the rehabilitation of the underprivileged in the regions, etc.

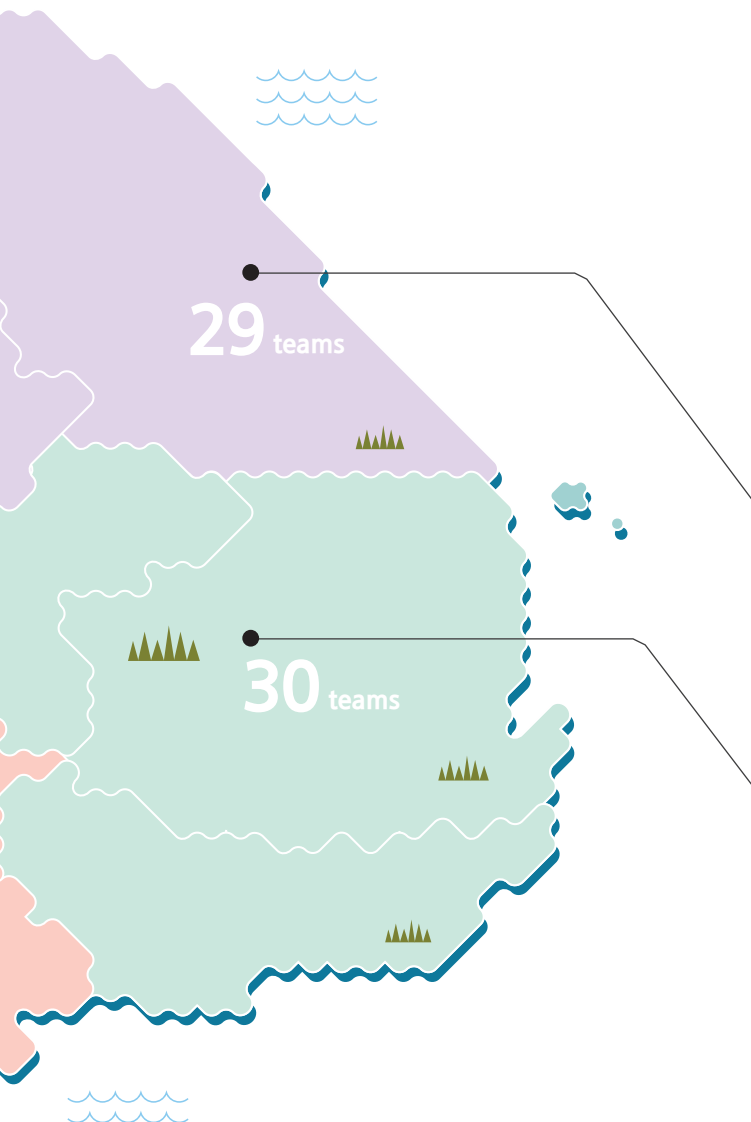
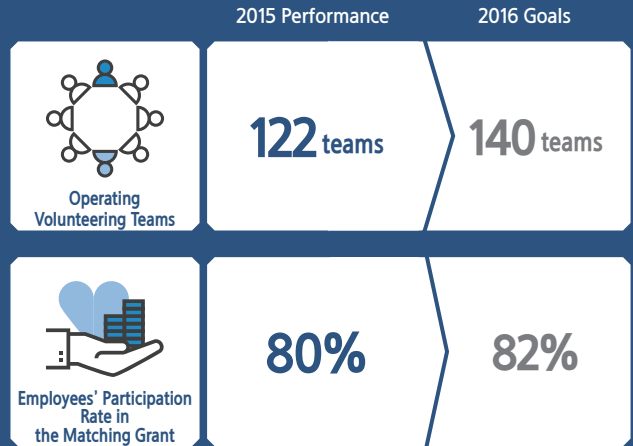
RISKS

- One-time events or 'showing off' of social contribution activities being socially criticized
- Weakened corporate and brand image

OPPORTUNITIES

- Establishing a positive corporate image
- Enhancing love for the company and satisfaction among employees through engagement in social contribution activities

MAJOR PERFORMANCE AND GOALS



* 122 teams(accumulated/117 domestic teams, 5 overseas teams)
As of December-end, 2015, 50 volunteering teams are engaged

Expansion of Employee Participation

| Matching Grant

The Matching Grant is up and running at LOTTE E&C to establish a culture of sharing within the company. It allows the company to extend donations in proportion to the funds raised voluntarily by the employees. The funds collected by each and every individual and the company in unity are used as the 'Fund for Love Sharing' for diverse social charity programs.

| Operating the Charlotte Volunteering Group

In order to encourage employees to engage in social contribution, we operate the company-wide Charlotte Volunteering Group*. The volunteering group operating in the form of a club carries out recipient-oriented volunteering considering local conditions, which strengthens ties with communities.

* A socially-contributing organization jointly participated by labor and management of LOTTE Group affiliates

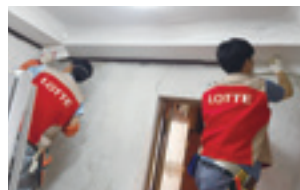
Volunteering Teams in Gyeonggi and Gangwon



Major Activities

- Visiting the underprivileged in the regions and practicing sharing with them
- Cultural volunteering for the underprivileged in community
- Cleaning up the community environment, etc.

Volunteering Teams in Yeongnam



Major Activities

- Improving facilities for the underprivileged
- Cleaning up the community environment
- Serving free meals, etc.

BUILD A GREAT VALUE



LOTTE E&C has continuously practiced sustainable management based on a belief that we should enhance social responsibility and execute our role towards achieving greater happiness for the future. We generate social and environmental values along with economic values in wide-ranging business fields as follows.

- 63 Environmental Management
- 66 Safety Management
- 68 Talent Management
- 72 Ethical Management
- 76 Customer Value Management
- 80 Win-Win Management
- 84 Social Sharing Management

Environmental Management



Approaches to Environmental Management

LOTTE E&C is fully aware of the criticality of environment for corporate sustainable growth and eagerly implements environmental management. We conduct activities to achieve our vision of 'Green Life 2020 in LOTTE' based on three strategic directions for environmental management.

Visions and Strategies for Environmental Management



Major Activities for Environmental Management

Organization and System Management for Environmental Management

Strengthening the Organization for Environmental Management

We operate the Environmental Management Subcommittee under the Sustainability Management Committee to implement execution tasks for environmental management, and identify environmental trends and major relevant issues. The sub-committee' activities are varied and include development of environmental strategies, risk management, providing information, training and evaluation. It also enhances expertise in environmental management through collaboration with the Safety and Health department, Design Research Institute and Technology Research Institute.

Improving the Environmental Management System

In order to manage the environmental impact and related risks pre-emptively, we operate the ISO 14001 Environmental Management Standard. In 2015, on-site monitoring was strengthened by identifying the adequate operating status for major facilities by leveraging photo registration functions on major processes that are implemented. We also run the autonomous risk inspection system to thoroughly manage post-inspection actions.

Managing the Environmental Management Roadmap

The environmental management of LOTTE E&C entered the 'maturity stage'. We developed eco-friendly techniques and products, responded to climate changes and established a system for GHG & energy system management in an effort to secure eco-friendly technical leadership.

Environmental Management Roadmap

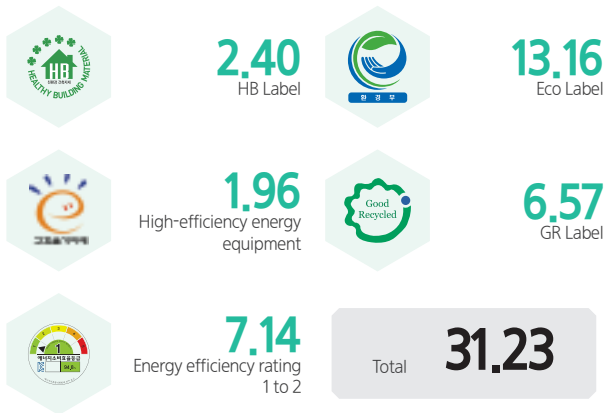
	Infant stage 2010 ~ 2012	Growth stage 2013 ~ 2015	Maturity stage 2016 ~
Establishment of Eco-friendly Management System	<ul style="list-style-type: none"> Establish company-wide long-term green strategy Form an assessment system of eco-friendly management performances 	<ul style="list-style-type: none"> Establish a system to respond to the United Nations Framework Convention on Climate Change (UNFCCC) Introduce and develop an environment performance evaluation system Establish and reinforce management standards for pollution causing materials 	<ul style="list-style-type: none"> Establish a network (domestic and international) related to eco-friendly initiatives
Creation of Eco-friendly Business	<ul style="list-style-type: none"> Create a foundation for research on source technology for eco-friendly construction Commercialize and promote green home technology Conduct greenhouse gas value engineering using LCCO₂ 	<ul style="list-style-type: none"> Commercialize and supply green home facilities Expand the scope of new eco-friendly businesses - Nuclear power, water, new and renewable energy projects, etc. Develop and apply eco-friendly construction techniques 	<ul style="list-style-type: none"> Develop and commercialize the zero-carbon house Acquire global certifications for eco-friendly goods and services Achieve global competitiveness for new eco-friendly businesses
Establishment of foundation for Ecofriendly Management	<ul style="list-style-type: none"> Expand the number of targets for programs to train environmental professionals Improve the waste and water resource management systems Strengthen in-company communication and marketing 	<ul style="list-style-type: none"> Publish sustainability reports Strengthen environmental contribution activities (Environment Day) Establish a GHG inventory 	<ul style="list-style-type: none"> Continuously publish sustainability reports Complement infrastructures for each sector of eco-friendly management

Realizing Eco-friendly Construction Sites

Eco-friendly Purchasing

LOTTE E&C is at the forefront of considering the visions for environmental management and fulfilling social responsibilities by procuring materials with eco-friendliness in mind throughout the entire cycle of design, construction and operation. In particular, we signed a voluntary pact for industry-wide "Green Purchasing", and try to continuously find suppliers with the same purpose. We also work towards and expand the list of materials for green purchasing through the green procurement system. The green procurement volume in 2015 stood at USD 31.23 million.

Performance of Green Procurement (Unit: USD million)



Eco-friendly Construction

Intensifying On-site Environmental Inspection

Regular and occasional inspection on a site environment is conducted for construction sites. In 2015, 88 inspections took place for 66 sites to check the status of separated waste storage and treatment and management of fly ash.

Results of the environmental inspection revealed that as for the number of discharges by pollutant, waste and air pollutants accounted for 191 cases(49.1%) and 108 cases(27.7%), respectively, taking up 75% of total inadequate outcome. Based on the results, we plan to focus more on waste and air quality management.

Improvements through 2015 Environmental Inspection

- Strengthening sanctions imposed on sites with 'mid' and 'low' grades based on the evaluation scores → Phase 1: re-inspection(within one month) Phase 2: issuance of a letter of warning
- Consulting new construction sites → conducting on-site service within one month from the submission of a construction start notice
- Intensive management of high-risk sites by period
- Conducting environment monitoring during construction and intensifying the operation of offsetting facilities
- Extending site operation systems and training / inspection while replacing the project managers and construction team directors

Zero Violation of Environmental Regulations

We minimize the environmental impact during the construction process and strictly comply with environmental regulations. We manage and share data in our information system for the current states of rented buildings, and installed environmental facilities to prevent environmental incidents caused by violation of environmental regulations. Thanks to the development of in-house systems for legal compliance and continued internal measures, in 2015, there was no case of violation of environmental regulations beyond punitive fines.

Environmental Training

Environmental training takes place for site supervisors and workers regarding on-site environmental management. Especially in 2015, we shared information on applicable regulations for each pollutant source and best practices in environmental management of other companies through training on consignment.

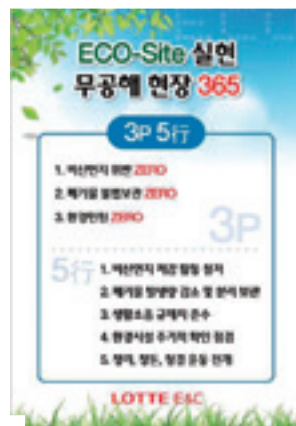
We also upgraded our environmental management level by acquiring expert's know-how practical skills for environmental management and management of civic complaints.

Plans to Strengthen Environmental Training

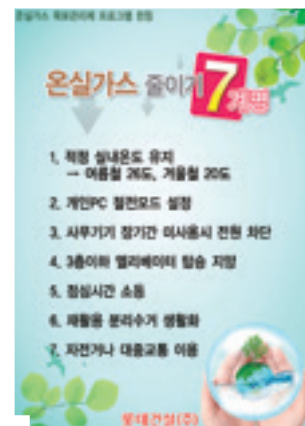
- Notifying sites belonging to the bottom 10% of the evaluation and expanding outsourced training
- Providing training to support new sites and establishing a management process for them
- Integrating and revising environmental training materials by process and period
- Disseminating training materials suitable for the level of construction workers and inducing sites to provide autonomous training

Launching Green Campaigns

We periodically launch campaigns to establish a company's green culture and enhance the awareness of environmental management. In 2015, our periodic green campaigns focused on key issues by distributing banners and posters: environmental management policy(January), dust scattering(March), GHG reduction guideline (June), intensive supervision during Chuseok holidays(September) and illegal incineration ban(November), etc.



Environmental management policy



GHG reduction guideline

| Operation of Eco-friendly Sites

Waste Management

In order to efficiently manage building materials used for waste management and construction, we set and operate a guideline for waste recycling. We have expanded the usage of recycled aggregates by sharing cases on the quality management and recycling of recycled aggregates. We manage waste treatment performance record through an internal information system to reduce waste at construction sites.



Operating Site-specific Waste Storage Sites

Management of Dust Scattering

To reduce dust scattering at construction sites, we perform various activities such as washing the wheels of transporting vehicles, watering unpaved roads, installing covers for open-storages, installing dust-free covers for materials in yards, operating road cleaning machines and other environmental improvement activities.

Management of Water Resources

LOTTE E&C has installed water pollution prevention facilities such as detritus tanks, silt protectors, and temporary waterways to minimize water pollution due to the discharge of effluent and waste water. Moreover, each construction site sets and analyzes reduction targets for water usage discovers areas to be complemented and initiates water saving activities. By efficiently treating water polluting materials, we will not only comply with legal standards but also proactively seek to prevent water pollution.

| Eco-friendly Demolition

In order to ensure the health of local residents and construction workers are not harmed due to the scattering of asbestos during the demolition working including asbestos demolition and removal, we comply with the operational standards stated in the related regulations.

| Eco-friendly Certification

Certification of Green Buildings

In order to acquire the eco-friendly-building certifications for both the domestic standard 'G-SEED(Green Standard for Energy and Environmental Design)' and the international standard 'LEED(Leadership in Energy & Environmental Design)'s Green Building Rating System', materials, resources, design, structure and functionalities of buildings are scrutinized and reviewed from the initial phase of the projects.

Type	Project Title	Level	Date
Housing	Housing redevelopment in the redevelopment promotion area of Gireum District No.3	Excellence in preliminary accreditation for green buildings	Feb. 21, 2013
	Yongin Shindongbaeg LOTTE CASTLE Eco (Block 1 & 2)	Excellence in the main accreditation for green buildings	Jul. 22, 2013
	LOTTE CASTLE Gold Park Block 3	Top excellence in preliminary accreditation for green buildings	Mar. 6, 2015
	Namyangju Jingeon District B-2BL	High grade in preliminary accreditation for green buildings	Apr. 3, 2015
	Housing redevelopment at Hyochang District 5	Excellence in preliminary accreditation for green buildings	Jun. 25, 2015
	Wonju Enterprise City 10BL	General Grade in preliminary accreditation for green buildings	Sep. 30, 2015
Buildings	Wonju Enterprise City 9BL	General Grade in preliminary accreditation for green buildings	Nov. 20, 2015
	LOTTE MART - Changwon Jungang Branch	Excellence in the main accreditation for green buildings	Feb. 25, 2011
	KT&G Seodaemun Tower	Excellence in the main accreditation for green buildings	Oct. 14, 2011
	LOTTE MALL GIMPO AIRPORT	Excellence in the main accreditation for green buildings	Nov. 14, 2011
	LOTTE MALL SUWON	Excellence in the main accreditation for green buildings	Aug. 23, 2012
	LOTTE WORLD MALL	Excellence in the main accreditation for green buildings	Jun. 13, 2014

Fostering LEED APs

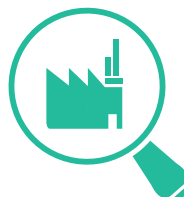
To nurture the experts in environment friendly construction certificates, LOTTE E&C supports its employees to acquire the LEED AP certificate. As of 31, December 2015 a total of 17 employees are certified, and we will continue to foster LEED APs.

* AP: Accredited Professional

2015 KEY PERFORMANCE



USD **31.23** million
Amount of eco-friendly procurement



88 times
Performance of on-site environmental inspection



17 employees
Number of LEED APs(accumulated)

Safety Management



Strategies for Safety Management

Seeking to achieve 'Zero Severe Disasters', our vision for safety management, we established and operated execution tasks for each of the two strategic directions: 'Strengthening Safety Support' and 'Strengthening the Personnel Competency'.

Vision and Strategies for Safety Management

Zero Severe Disasters

Strategic Directions

Execution Tasks



- Spreading the enterprise-wide safety culture
- Establishing a cyclical system for safety assets
- Strengthening human / material resources by the headquarter



- Enhancing expertise and diversity in human resources
- Securing competent workforce
- Acquiring capabilities for construction safety(strengthening training)

Principle on Safety and Health Management



- Employees and partners shall work together to reduce the rate of accidents to zero.
- To strive to develop a Safety and Health Management system leveraging continued innovation, and ensuring safety of workers.
- We vigorously comply with safety related regulations and rules, accept managerial reviews and opinions of stakeholders to integrate them to our business goals and act accordingly.
- To seek for systematic activities, e.g. establish, execute, review and revise safety management plans suitable for management with accountability of safety and health, for each business division.
- We form a pleasant work environment with courtesy and consideration for each other, establish a culture of safety and health, and create values for sustainable management.

Major Activities for Safety Management

Strengthening the Organizational Capacity and System for Safety Management

Securing Competent Safety Managers and Increasing the Portion of Full-Time Employees

The competency of safety managers is a yardstick to measure the safety management level of sites. LOTTE E&C strives to prevent safety or technical accidents resulting from a shortage of experiences. To this end, we scale up the employment of excellent safety managers equipped with specialized career paths in the areas of subway, railway, plant and high-rise buildings. We consider that safety managers are an essential workforce to prevent accidents, expanding the ratio of full-time safety managers.



Safety Management System

We acquired KOSHA 18001 and OHSAS 18001*, the certifications for the safety and health management system to enhance the company-wide safety and health levels. All employees participated to improve and identify the risks relating to safety and health. Risks are noticed beforehand and terminated by operating the risk evaluation system.

Moreover, any matters found to be inappropriate after inspected by safety guards and managers in charge of the business area are immediately addressed through the safety management system.

* Acquired the KOSHA 18001 certification: 2002.07
Acquired the OHSAS 18001 certification: 2003.12

Headquarters Safety Support Group

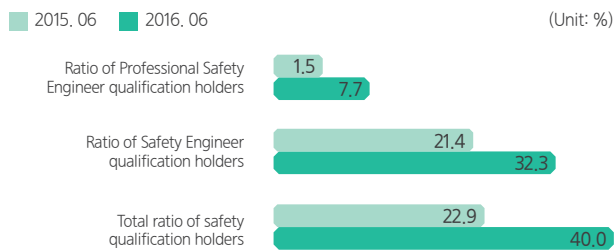
We adopted the 'Safety Support Group System Managed by the Headquarters' for the first time in the construction industry to establish a system to support sites with short-term construction and those lacking in safety management, considering its construction period. A total of 1,209 cases of risks were discovered and removed by recruiting four experienced safety monitoring managers and dispatching them to 10 sites being prone to risks of accidents. We plan to recruit one more personnel in 2016.

| Safety and Health Committee

The Management of Safety and Health Committee is in place for sites where construction costs exceed a certain amount; that is, KRW 12 billion (approx. USD 10.6 Million), and KRW 15 billion (approx. USD 13.3 Million) for civil works. The committee consisting of workers and users in the same number serves as a communication channel to share suggestions directly from workers on safety and health issues. And the top management are fully involved in safety-related activities as a means to develop a culture where all employees voluntarily take interests in safety & health issues. The Management of Safety and Health Committee is held by the CEO on a monthly basis, discussing the performance of safety and health management as well as improvement plans to prevent accidents.

| Implementing the Mandatory Safety Qualification System for Project Managers

The Mandatory Safety Qualification System for Project Managers is to be implemented from July 2017 to secure expertise and foster management capabilities for engineers on construction safety management. Currently, we have a two-year grace period to acquire safety qualification. The ratio of qualification holders increased 17%p, and the number of Professional Safety Engineer qualification holders increased from two to ten in June 2016 year on year which was prior to the announcement of the implementation.



| Strengthening Maintenance for Reused Temporary Safety Equipment

Reckless distribution of unauthorized and defective temporary equipment threatening the safety of workers has emerged as a social issue, leading to the rising risks of safety accidents of large scale. To respond to such an issue, we have established and operated the 'system for safety certification and maintenance of reused temporary safety equipment'. Distribution of temporary safety equipment used to be common among sites in the past, but we have conducted safety certification inspection for the used temporary safety equipment since 2015, and unauthorized products are used through a maintenance/certification procedure.

| Strengthening Safety Training

LOTTE E&C conducts safety training to strengthen employees' safety management competency and safety awareness. In 2015, technical safety training has been implemented for enterprise-wide engineers in preventing any reoccurrence resulting from the increases in the technical safety accidents and mechanical / electrical accident ratios. New courses have been opened to expand training targets, engaging the CEO / management, executives / team directors, engineers at the headquarters and management / on-site engineers in partners. In 2016, a total of 11 courses are in operation for 3,800 trainees in 2016.

	2013	2014	2015
Training courses	5 courses	6 courses	13 courses
Targets of training courses	LOTTE E&C: - On-site construction team and safety managers	LOTTE E&C: - On-site engineers and safety managers	LOTTE E&C: - CEO / management, executives / team directors - Engineers at the headquarters - On-site engineers and safety managers Partners: - management / On-site engineers
Number of trainees	774 persons	1,064 persons	3,629 persons

| Strengthening the Equipment Safety Management Activities

We have established the equipment safety management system since 2014, carrying on the records of no disaster associated with equipment. In particular, we have restricted the usage period of mobilized equipment and plants to 10 years, reducing the average years of use by 3.2 years compared to the previous year. As a result of managing the professional careers of engineers in charge of tower-crane installation and dismantlement, the average period of professional careers of the target engineers has increased about two-fold. Furthermore, we have adapted the baseline to assign sufficiently experienced engineers to projects on preferential basis. From 2016, to prevent largescale accidents in relation to equipment management, we pre-assign at minimum one safety engineer with 10 years or more experience in the field of equipment inspection to a project with a contract amount greater than KRW 220 billion (approx. USD 194.4 Million).

	2014	2015	Note
Average years of using mobilized equipment and plants	12.8 years	9.6 years	Decreased by 3.2 years
Average years of experience in tower crane installation and dismantlement team	8 years	16 years	Average years of experiences has doubled

2015 KEY PERFORMANCE



0.22%
Disaster rate



519 units
Number of inspections on the imported equipment



3,629 persons
Number of individuals that completed safety training (Including partners)

Talent Management



Talent Management Approach

Talent management has become a prerequisite for sustainable management. Proactive competency development and a people-oriented corporate culture not only contributes to the enhancement of individual competencies and value, but also drives sustainable corporate growth.

LOTTE E&C's human resource management principle is to respect the creativity and autonomy of its employees and offer fair compensation based on performance. We endorse standards and protocol of international bodies and organizations on labor and human rights including the UN Universal Declaration of Human Rights and consider them as the basis for talent management.

Vision and Strategies for Talent Management

A Global Company Which Shares and Dreams about Hope

Strategic Directions	Execution Tasks
 <p style="text-align: center; font-weight: bold;">Culture of Respecting Diversity</p>	<ul style="list-style-type: none"> Establishing policy governance for recruiting talent (female, talents that contribute to the national development, the physically challenged, etc.)
 <p style="text-align: center; font-weight: bold;">Harmony and Balance between Work and Life</p>	<ul style="list-style-type: none"> Reinforcing family-friendly management Conducting maternity protection activities
 <p style="text-align: center; font-weight: bold;">Social Responsibilities as a Global Company</p>	<ul style="list-style-type: none"> Boosting educational donation projects (educational donation programs for on-site experience)





Major Activities for Talent Management

Fair Recruitment of Talents

Employees are recruited based on four criteria namely, 'Fairness', 'Diversity', 'Suitability' and 'Rationality' and secures competent talent equipped with expertise and a global mindset.

Strategies for Talent Recruitment

Strategies for Implementation

<p style="font-weight: bold; font-size: small;">Coexistence of Diversity</p> 	<ul style="list-style-type: none"> Continuously intensifying open recruitment schemes Reviewing feasibility in securing talent based on diversity Adaptation of talent to the organization and environment after recruitment <p style="font-size: small; padding-top: 10px;">We seek for open recruitment to secure diversity of talents. We conduct a special recruitment channel for female military officers discharged from service and female talents from the science and engineering sectors to secure talents with soft yet strong female leadership qualities that are suitable for the construction sector.</p>
<p style="font-weight: bold; font-size: small;">Selection and Concentration</p> 	<ul style="list-style-type: none"> Continuing to recruit talent to enhance personnel competencies for vulnerable positions Establishing measures to employ personnel and experienced employees for key positions and developing relevant strategies for talent management Adopting plans to procure and foster R&D workforce over the long term <p style="font-size: small; padding-top: 10px;">We have expanded the recruitment of specialists in R&D, law, finance, design and technical sales to boost our competitiveness down the road and secure specialized talents.</p>
<p style="font-weight: bold; font-size: small;">Sharing and Accompaniment</p> 	<ul style="list-style-type: none"> Proactively engaging in the government's employment policies Considering the socially underprivileged including female, local workforce, the physically challenged and people with low-income Establishing a customized talent recruitment process in line with social needs <p style="font-size: small; padding-top: 10px;">We have additional job openings for the socially underprivileged and to strengthen socially responsible recruitment. We have increased the job positions and recruitment quota for the disabled in accordance with the special recruitment guidelines of LOTTE Group.</p>
<p style="font-weight: bold; font-size: small;">Expression of Individuality</p> 	<ul style="list-style-type: none"> Initiating changes in the hiring framework i.e., enhancing recruitment by searching for competent individuals on site Securing top talent preemptively and proactively through diversifying the channels of recruitment Improving and adopting talent screening schemes beyond stereotyped qualifications <p style="font-size: small; padding-top: 10px;">We select creative talents through idea contests by striving for diversified recruitment and capability-oriented screening beyond stereotyped qualifications.</p>

Strengthening Employees' Competencies

Talent Development Roadmap

LOTTE E&C operates the talent development roadmap to strengthen employees' competencies, considering talents as the basis for generating corporate values for the future.

The roadmap consists of Leader Capability Training, Training on Job Capability, Self-Development Training and Company-wide Training. Multi-layered training is offered for each job position in an effort to strengthen employees' competencies.

Training of New Employees

LOTTE E&C is operating introductory training and a mentoring system for new employees to help them to adapt better to work and the corporate culture. We set Wednesday of the fourth week of every month as a mentoring day and provide work process training, in which a mentor and a new employee have one-to-one meetings. Moreover, we focus on enhancing their skills for job functions through division-specific work training for new employees in each division.

Securing Job Capabilities

Training is offered for job capabilities to foster competencies and qualifications required in each position. Job title-specific competency buildup

programs are offered for employees to fulfill their roles within their unit amid the changes in their positions. Job training by engineers and division is provided to foster specialized technical workforce. As of 2015, an accumulated volume of 204 employees acquired engineering certificates(Professional Engineer, PMP and LEED AP, etc.).

Management of the Preparatory Courses for Safety Engineer / Professional Safety Engineer

We manage a system to support employees to acquire safety-related certificates(Safety Engineer / Professional Safety Engineer) to strengthen the job competency for safety management. Online courses are provided to all the employees who wish to take preparatory courses for Safety Engineer. For Professional Safety Engineer, we conducted training course for selected 30 engineers.

Academic Credit System

LOTTE E&C supports to enhance employees' competencies company-wide by operating an academic credit system. Courses consist of training in the Group and at company level, job-related certificate programs and overseas training. Employees' competencies can be boosted through self-driven learning under the system.

It also enables employees to easily manage their history of training via 'My Training Records' by checking out the number of credits to be acquired in a given year, the credits carried on from the previous year and remaining credits to be completed.

Talent Development Roadmap

Type		Level A (Assistant)	Level SA (Senior Assistant)	Level M (M1, M2)	Level S (S1, S2)	Executives
Leader Capability Training	Led by LOTTE Group	Introduction Training for New Employees	Take-off Training for New Employees	Preparatory Course for Promotion Qualification Test	S-Grade Promotion Qualification Course · Mandatory Training for Grades Work School Outside MBA Programs	New Executive Course S-EMBA
	Led by LOTTE E&C	Introduction Training for Seasoned Employees		Introduction Training for New Employees	SA Promotion Course	Preparatory Course for Promotion Qualification Test
Work Capability Training	Professional Training Course			In-house Instructor Development Course		
	Techniques			Intensive Global Course		
				Practical Course on Overseas Construction Works		
				Expert Course on Contractual Claims		Project Manager Capability Upgrading Course
Sales Management			Project Manager Development Course			
		Division-Specific Work Training & Engineer Training Course				
Self-Development Training			E-Learning Course			
			Outsourced Training Course			
			Credit-based Course			
Company-wide Training			Safety Management Course			
			Course on Selected Issues			
			Ethical Management Course			

Leadership Development

LOTTE E&C conducts training for team directors, project managers, etc. the leaders who are crucial to the performance of their organizations.

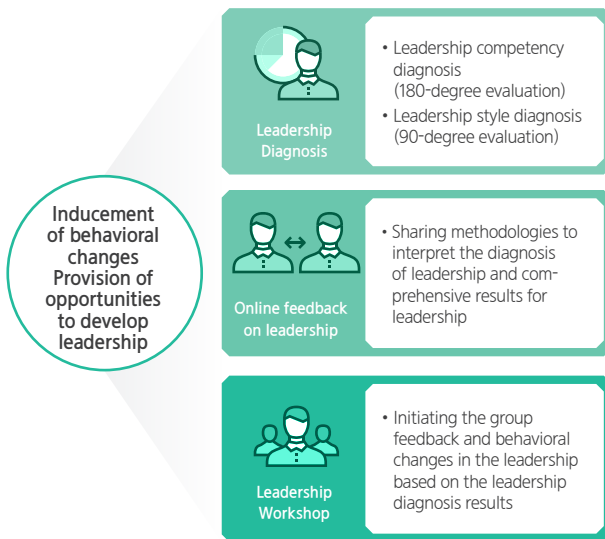
We have operated the S-Grade Promotion Qualification Course since 2013 for prospective candidates as future leaders. For the project managers we provide training more than once a year to enhance their competencies and develop their qualifications as corporate managers.

Introduction of the Leadership Diagnosis Program

Amid an increasing need for programs to systematically develop leaders, we have offered the Group-wide leadership diagnosis program since 2014.

Organizational growth and the growth of the leaders are boosted by diagnosing leaders' competencies and leadership styles for executives, team directors and managers wishing to have their leadership level diagnosed.

Leadership Diagnosis Process



Strengthening Global Competencies

LOTTE E&C enables employees to do business seamlessly on overseas sites through our global competency buildup program as our overseas business is scaling up.

Intensive Course

LOTTE E&C provides support for overseas employees to develop local language proficiency skills and adapt faster to their sites. In January 2015, 9 employees completed the Intensive Courses on Chinese. We have created a standard manual for office management for overseas offices and branches, and a specialized manual for Indonesia and Vietnam to help employees at home and abroad understand and utilize the content.

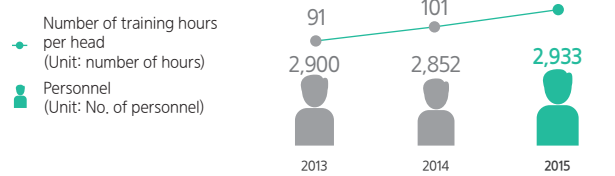
Improvement of Language Proficiency

A prerequisite for global talents is communication skills. That is why we operate the Global School program for our employees to learn Chinese and Vietnamese as well as having courses on strengthening presentation and negotiating skills. Support is also extended to enable their efficient communication by adding a course on meetings with overseas buyers.

Work Capability Enhancement Program

LOTTE E&C trained on the overall process (bidding - contracting - ground breaking - construction management - completion, etc.) and contractual terms of the International Federation of Consulting Engineers (FIDIC) through job competency build-up training for overseas construction in 2015 to train global talents and satisfy training needs for overseas job functions in business divisions. Training is provided to employees dispatched abroad on knowledge on the target region so that they can quickly adapt to the site and local conditions.

Training Results



BUSINESS CASE | Management of the Learning Group

Seeking to enhance internal technical competencies through technical competency sharing and knowledge buildup, we run the 'Plant Learning Group'.

It enables individual employees to systematically acquire knowledge and information on industries, techniques and management, and the Learning Group can generate synergies in business by possessing such knowledge and information as its own asset.

Topics to be learnt are selected based on job analysis and mentee competencies, and participants may propose topics on specific issues that might occur in consulting. A mentoring journal is written for each lesson, and all assignments are systematically managed and reflected in the job manual guideline and job guideline.

In 2015, 126 employees took part in the Learning Group.



Plant Learning Group

	For individuals	For the Learning Group
Expected Results	Enabling realignment and sharing of mentors' knowledge	Sharing and reinforcing internal technical competencies
	Fostering pragmatic job-oriented capabilities	Fostering the internal learning culture
	Expanding communication opportunities between mentors and mentees	Sharing learning materials of other teams / other processes

Work-Life Balance

Family-friendly Programs

LOTTE E&C operates family-friendly program to create a work environment where all employees can happily work. Participating families can experience the history of LOTTE E&C for two days during the program and the love of their family members can deepen as they understand the company and take part in various activities.



Family-friendly Program Activities

Acquisition of the Family-friendly Certification

LOTTE E&C acquired the family-friendly certification in December 2015 driven by continued family-friendly management such as the mandatory childcare leave, construction and management of company childcare centers, and family travel programs. As such, LOTTE E&C is recognized as a company with programs that provide a work-life balance.

Improving and Expanding the Family Love Day

In order to enhance the effectiveness of the 'Family Love Day' held every Wednesday, we encourage employees via internal broadcasting, work hours monitoring and compliance evaluation from December 2015.

Furthermore from May 2016, we have expanded implementation of the 'Family Love Day' to every Wednesday and Friday(2 days per week) to achieve work-life balance and 'leave-the-office-on-time' culture.

Fair Performance Evaluation & Reward

Performance Evaluation & Reward

Rational compensation is provided in line with fair performance evaluation. We are using various evaluation methods, such as performance evaluation, capacity evaluation, and core value evaluation, based on which rational levels of performance-oriented rewards are given to motivate and boost morale for employees.

Welfare Benefits

LOTTE E&C runs diverse welfare benefits to enable employees to work in a happy and decent work environment. Various benefits include insurance coverage for four major insurances, maternity protection, and support for stable housing and livelihood, medical and healthcare service and leisurely life.

We have also adopted the wage peak system in accordance with the Employee Retirement Benefit Security Act. We have extended the retirement age from 55 to 60 starting from 2016.

Welfare Benefits

	Support for leisure activities <ul style="list-style-type: none"> Refresh Vacations Operation of the Day of Family Love / Clubs' Day Offering of gifts for birthday and wedding anniversary, etc. 		Maternal and Maternity Protection <ul style="list-style-type: none"> Maternity leave post childbirth Cash extension post childbirth
	Stable Housing and Livelihood <ul style="list-style-type: none"> Housing loan Tuition subsidies Cash gifts for congratulations and condolences 		Medical Fees and Health Checkup <ul style="list-style-type: none"> Payment of employees' medical checkup fees and medical fees and insurance premiums
	Statutory Welfare Benefits <ul style="list-style-type: none"> Subscription to Social Insurance (For Compulsory Insurances) 		Selective Welfare Benefits <ul style="list-style-type: none"> Offering of individual welfare benefits using a welfare card
	Others(Type) <ul style="list-style-type: none"> Financial support for the employer' liability insurance and family insurance for employees in overseas branches Accreditation and reward for employees' long-term service Retirement Preparation Program(running an online website and office) Retirement age extension and wage peak system 		

2015 KEY PERFORMANCE

<p>102 hours Training hours per individual</p>	<p>130 employees Number of participants in family-friendly programs</p>	<p>71.4% Return rate after child-care leave</p>
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Ethical Management



Ethical Management Approach

LOTTE E&C makes all-out efforts to improve ethical management for employees to practice ethics in their daily lives, while recognizing risks associated with more stringent domestic laws and ethical standards in the international community along with responsibilities as a corporate citizen. We are gradually expanding the scope and domain of ethics management amid the social interest and criticism on the recent corporate ethics scandals involving large enterprises such as high-handedness against subcontractors/suppliers, unethical acts of employees and customer information leakages.

Moreover, we established three strategic directions to achieve our ethical management vision: 'creation of an ethical company based on principle and trust'. Accordingly, we strive to strengthen ethics management system and activities, and spread a culture of employees' practice of ethical management.

Vision and Strategies for Ethical Management

Creation of an Ethical Company Based on Principle and Trust

Strategic Directions	Execution Tasks
<div style="text-align: center; margin-bottom: 10px;">  Enhancement of the Ethical Management System </div>	<ul style="list-style-type: none"> Strengthening infrastructure for ethical management Regularly conducting diagnosis of ethical management levels (LOTTEX*) (once a year) <p><small>* LOTTEX: LOTTE Ethics Index</small></p>
<div style="text-align: center; margin-bottom: 10px;">  Internalization of Employees' Ethical Consciousness </div>	<ul style="list-style-type: none"> Expanding the program to improve awareness of ethical management Checking the actions for ethical management Establishing the compliance manual for overseas sites
<div style="text-align: center; margin-bottom: 10px;">  Vitalization of an Ethical Communication Policy </div>	<ul style="list-style-type: none"> Disseminating ethical management to partners (diagnosis, training) Facilitating the operation of reporting channels

Major Activities for Ethical Management

Strengthening Ethical Management in Line with LOTTE Group's Code of Conduct

Establishing and Spreading LOTTE Employees' Code of Conduct

LOTTE Group adopted LOTTE's Code of Ethics in October 2000, and established LOTTE Employees' Code of Conduct as an upgraded version in 2014. The code of conduct consists of 'trust among LOTTE families', 'trust with customers', 'trust with partners' and 'trust with the society'.

In 2015, LOTTE E&C provided training on LOTTE Employees' Code of Conduct to all employees in conjunction with LOTTE E&C's behavioral norms and bylaws for conduct, which are internal ethical regulations. We also conducted training for local employees in overseas offices and branches through heads of branches and subsidiaries.

Intensifying LOTTE E&C's Ethical Management Units

Ethical management is managed in two channels via the Ethics Secretariat and the Audit Team. The Ethics Secretariat conducts preventive activities such as dispersing and providing training on the principles of ethical management, while the Audit Team is engaged in activities to guide, inspect and improve compliance with laws and bylaws.

Each unit is made up of diversified members from different job positions for more professional conduct. Especially in the Audit Team, most of the members are in the supervisor level and above and are experienced in working on sites to enable more pragmatic audit.

Major Activities



Employees' Regular Ethical Awareness Training and Audit

Ethical Management Training by Target

Diverse ethical management programs are in place, catering to employees' jobs and job position. Training by the Audit Team targets employees in the headquarters and local sites, intensifying the effectiveness of training.



Training on improvement in work

Diagnosis of Ethical Management

LOTTE E&C diagnoses the level of ethical management using LOTTEX, a self-developed diagnosis program, and sets channels for stakeholder communication, paving the way for corporate sustainable growth.

LOTTEX consists of two parts: 'basic ethic' on compliance with the legal system and ethical responsibilities through appropriate and transparent corporate management and 'social ethics' on promotion of management in which companies, stakeholders, and future generations can achieve growth together based on economic, environmental, and social responsibilities.

As a result of LOTTEX diagnosis in 2015, LOTTE E&C's comprehensive ethical score was 81.5 points with 81.1 points from the internal stakeholder diagnosis and 82.3 points from the external stakeholder diagnosis.

Self-Check Program on Ethics

LOTTE E&C operates the self-check program on ethics to inform the importance of ethical management to employees and to enable individuals to better incorporate ethical management.

Self-Check Program on Ethics



Ways to Raise Participation Rate

- Automatic pop-ups when logging in the company's IT system
- Training for employees with a low participation rate upon department / on-site audit
- Plans in place to induce proactive participation by periodically disclosing the participation rate by department and site

BUSINESS CASE | Expansion of the Ethical Management Practice Day

LOTTE E&C has expanded the self-ethical check that used to be held twice a month into the company-wide check. A survey is developed on five areas including headquarters business, domestic and global sites and overseas branches / subsidiaries, and ethical risk diagnosis and ethical training are conducted under the stewardship of a unit head once a month.

Diagnosis results are reflected in selecting and evaluating competent teams on ethical management. Teams selected as competent ones are given rewards to enhance employees' ethical awareness and encourage their ethical practices.

In order to encourage higher participation, training is conducted during audits for departments and sites with low participation rates.

Expected Results

- Strengthening awareness on unethical acts in consideration of the nature of each team's jobs
- Managing unethical risks on overseas sites and branches, local subsidiaries and dispatched personnel
- Discovering ethical weaknesses of the company through feedback statistics
- Responding to external risks on individual and organizational unethical acts
- Inducing preventive audit based on points raised in the previous audit and a list of diagnosis items with cases attached

System Alignment and Communication for Partnerships in the Supply Chain

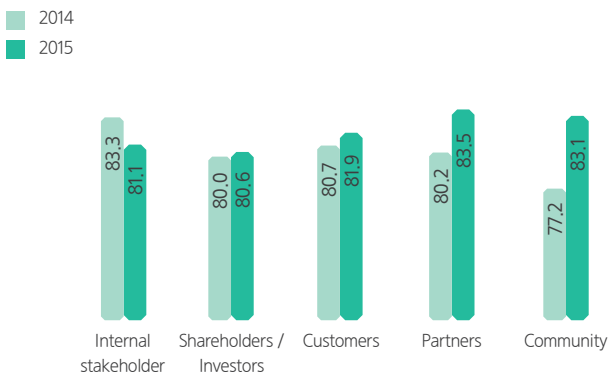
Diagnosis of the Ethical Level of External Stakeholders

LOTTE E&C has performed self-developed ethical level diagnosis (LOTTEX) since 2012, expanding the targets for ethical level diagnosis to not only employees but also external stakeholders including customers, partners and community. In 2015, the ethical level diagnosis took place for a total of 619 external stakeholders, and the evaluation results were reflected in establishing ethical management strategies and action plans of LOTTE E&C.



Screen shot of the external diagnosis of ethical management on the website

Evaluation results for each stakeholder in LOTTEX



Ethics Pledge of Partners

As the roles of the supply chain increase in corporate management, we operate the 'Ethical Pledge Writing Program' to enhance partners' ethical awareness and settle an ethical management culture.

It eradicates unethical management activities of partners as they fill in the ethical pledge with their willingness to practice ethical management and also contributes to the growth of a fair corporate eco-system.

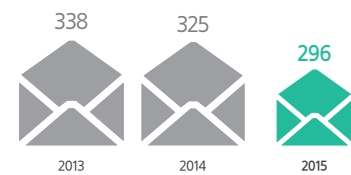
Management of Reporting Channels

LOTTE E&C runs the Cyber Ombudsman to gather feedback of internal and external stakeholders and to manage unethical corporate behavior. We maintain a lead time of less than 10 days on average to disclose the results. Special audit takes place on certain agenda to strengthen feedback for the results of resolved cases.

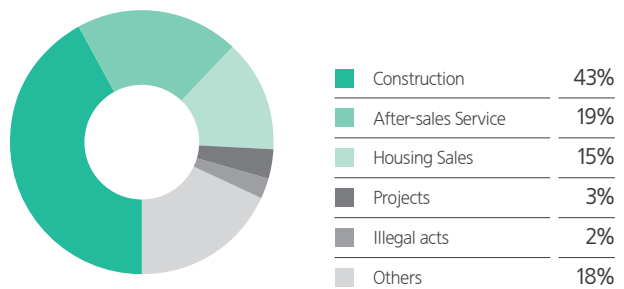
Based on fair audit on cases reported to the Ombudsman, we prevent malicious reporting and enhance the reliability of reported cases. Moreover, we also run online channels including the customer service center on the website and email services, along with offline channels including phone, fax, mail and off-line visits for the convenience of the case reporters.

Cases Reported to the Ombudsman

(Unit: cases)



Type of Reported Cases






Strengthening Audits

Conducting Audits

LOTTE E&C has enhanced internal audits for fair and ethical management activities. In 2015, we conducted regular, topic-specific and special audits aligning the headquarters and sites.

This led to improved systems and auditing quality, and raised the ethical awareness of employees.

Key Auditing Results

 <p>Enhancing the work system through auditing</p>	<ul style="list-style-type: none"> Continuously conducting topic-specific audits that bring about significant improvement for the work system
 <p>Raising the quality of audits</p>	<ul style="list-style-type: none"> Intensifying on-site auditing (guidance + periodic audits → integrated on-site auditing) Improving the work process in overseas sites and inspecting risks there
 <p>Forming a culture of proper usage of corporate cards</p>	<ul style="list-style-type: none"> Intensifying preventive audits based on regular audit of the corporate card usage

Performing Audits for Information Protection

LOTTE E&C conducts a quarterly security audit and routine security audits during site inspection to protect corporate information and personal information held by the Company. The information protection audit targeting all departments and sites is jointly performed by organizations related to strategic planning, ethical management and marketing. The audit delves into four areas and 33 items including compliance with the Personal Information Protection Act, and identification of and reasons for outgoing information through personal information detection software. As a result of the 2015 audit, departments and sites with low scores were inspected again, and feedback was provided to drawbacks.

Future Directions

In order to pursue 'creation of an ethical company based on principle and trust', we plan to initiate activities in 2016 by setting directions, that is, 'strengthening ethical awareness by stakeholder', and 'acting out ethical awareness by employees in their daily lives'.




Facilitating Communication with Stakeholders

We plan to facilitate whistleblowing of external stakeholders as well as employees from 2016. We will boost their awareness about unethical acts by facilitating whistleblowing through various means: informing of the whistle blowing procedure on unethical acts including quarterly emailing and SMS, adding a question item in a questionnaire on unethical acts in conducting the LOTTEX survey, and informing of the hotline during training for partners.

Practicing Ethical Management in Daily Lives

We will strengthen day-to-day audits including operation of the Ombudsman, inspection of the use of corporate cards and monitoring of overseas sites for employees to practice ethical management in their daily lives. We will also publish a Q&A booklet as a guideline to practice ethical management to address related and puzzling questions raised by employees, and distribute it to all the departments at the headquarter, domestic and overseas branches and sites. Such efforts will enhance their awareness about ethical management. We plan to strengthen training on ethical training for partners.

2015 KEY PERFORMANCE

 <p>2,933 employees Number of participants in the training</p>	 <p>81.5 points Results of the ethical management diagnosis (LOTTEX)</p>	 <p>58 cases Number of cases with improvement and guidance after auditing</p>
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Customer Value Management



Approach to Customer Value Management

LOTTE E&C can only achieve continued growth when we offer differentiated values to customers and they recognize those values.

Each business unit enhances the customer value throughout the project execution stages, and strengthens the quality of construction and the service by operating a Exclusive CS* unit for housing and architecture business areas.

* CS: Customer Satisfaction

Vision and Strategies for Customer Value Management

Providing Customer Satisfaction and Better Values for Customers with the Best Products and Services



Major Activities for Customer Value Management

Strengthening Competitiveness in Quality

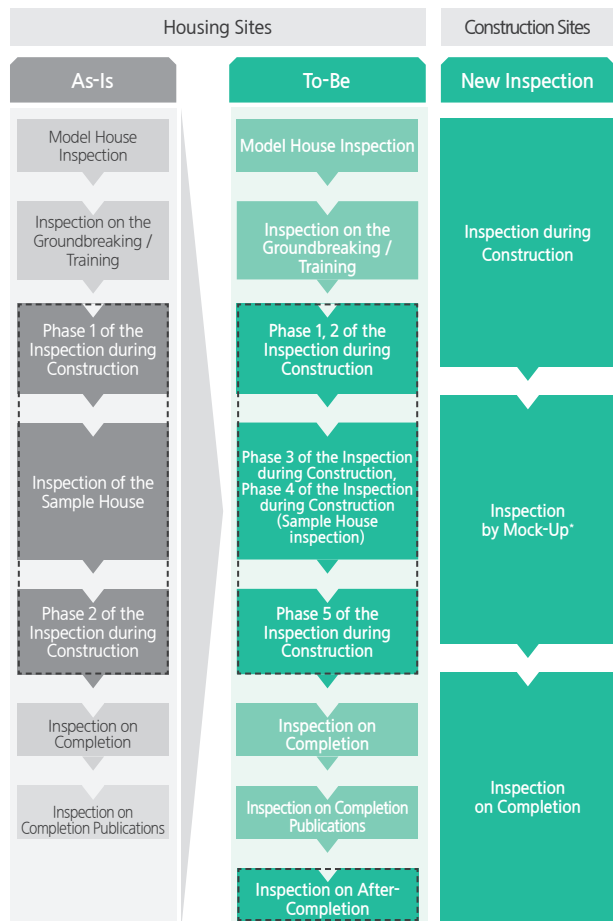
Strengthening the Organization

We strengthen CS activities especially for housing and architecture projects. We have established a one-stop inspection system by increasing the number of architectural engineers within the CS Department.

Enhancing the Quality Inspection

We strengthened intensive inspection on major defects in each phase of construction. Quality inspection and fast service have been intensified befitting each period by dividing the management period into two: residency management period for two months before and after the completion, and the management period two months after completion.

Quality Inspection Process



* Mock Up Inspection: actual model-used inspection

| Training on Quality Innovation

LOTTE E&C strengthened the training on quality to maximize customer satisfaction. In 2015, we conducted training of the Quality Innovation Academy for 15 times in various training schemes. We covered such topics as major defective cases, design standards, laws and quality enhancement measures for apartments and construction sites, and invited specialists for each construction type. We enhanced the effectiveness of training by engaging working-level staff on sites for post management as in-house instructors.

Key Points in the Training on Quality

- Training on major defects major construction areas
- Dissemination of cases of improvement and failure on major sites
- Lectures of invited specialists on prevention of major defects
- Lectures from research institutes on defects in civil works

| Sharing Defect Cases and Strengthening Measures to Prevent Defect Recurrences

We identify cases on defects that occurred in actual settings, and share on-site feedback on cases and the cases reflected on sites. As a result, we recommend the actual utilization in work beyond sharing of information on defects.

 Intensifying the Discovery of Cases on Defects	<ul style="list-style-type: none"> • Finding major civic complaint cases using residency-related data <ul style="list-style-type: none"> - Prior inspection on tenants / residency completion reports • Detecting cases of excellence and setback in inspecting the on-site quality
 Disseminating the Cases on Defects	<ul style="list-style-type: none"> • Devising improvement measures for major defects and disseminating cases <ul style="list-style-type: none"> - Coming up with improvement measures based on consultation with related departments - Spreading cases on critical / chronic defects and gaining feedback
 Disseminating Monthly / Yearly Cases on Defects	<ul style="list-style-type: none"> • Gathering monthly business-specific defects and disseminating areas for improvement • Archiving data on defects collected throughout the year, publishing a booklet on it and distributing it to site
 Strengthening Feedback on Cases	<ul style="list-style-type: none"> • Gaining feedback on training on defect cases <ul style="list-style-type: none"> - Submitting ideas and applied cases by site • Reflecting excellent cases where improvement has been made upon site evaluation

| Implementing Special Inspection

We conduct special inspection on incoming panels, elevators, old dead trees and the status of their removal by strengthening post-construction inspection. This ensures quality management to boost reliability.

Inspecting Incoming Panels

We inspect incoming panels* that measure thermal imaging to prevent incidents of transformer deterioration and damage resulting from overloading. Inspection takes place once a year for three years on the extra high voltage panels, TR panels, low voltage panels, MCCB panels and other distribution panels*.

* Power distribution system: an electric power system to receive electric power from power plants and distribute it

* Distribution board: a system to re-distribute the electricity received from the power distribution system

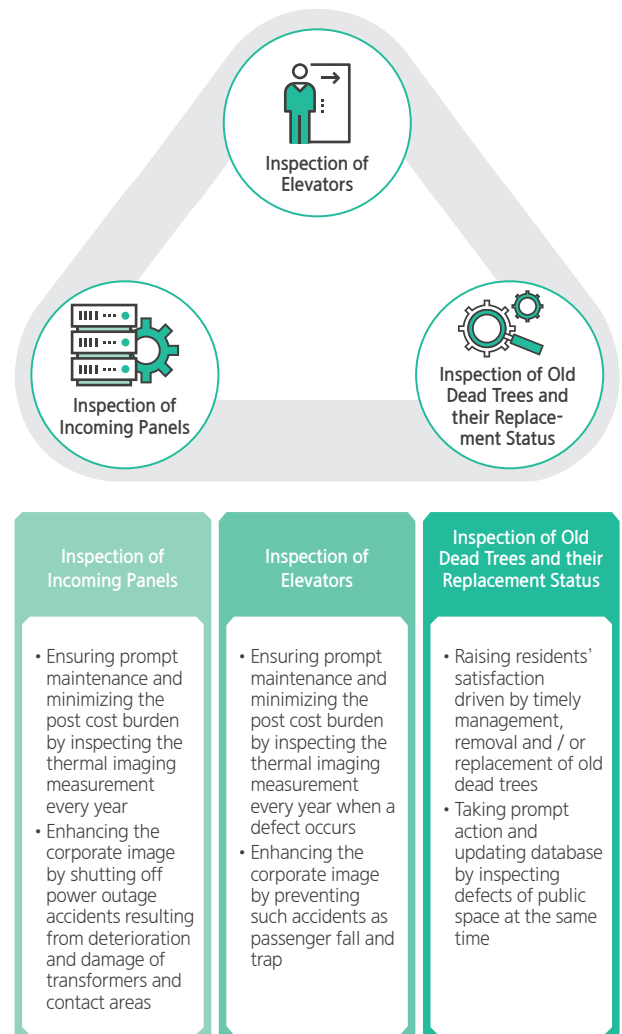
Inspecting Elevators

In order to prevent elevator-related accidents including passenger fall and trap, we inspect on operations of emergency stop and call devices resulting from brake contact problem and emergency lighting operation once a year for three years.

Inspecting Old Dead Trees and their Status

We inspect old dead trees and their removal status, non / erroneous construction and defects in public space twice a year for two years after construction.

Expected Results



Enhancing Customer Satisfaction

Renewal of LOTTE CASTLE's Website

LOTTE E&C completed the renewal of the website of LOTTE CASTLE in April 2016 by reflecting its new brand, design identity and latest marketing trends.

The renewed website improved convenience in usage by introducing new features: simplified information tracking on a complex and customized search and log-in via SNS. The same content is provided on mobile devices with PCs', enabling access to information on LOTTE CASTLE anywhere and anytime.



PC version of the website



Mobile version of the website

Strengthening CS Training

We raise our competences to respond to customers through training on service mindset. All employees in the C/S take part in the training, and service coaching is provided by inviting external special instructors. CS training is periodically conducted for partners so that multi-faceted responses are put in place depending on customers' tendency.

Protecting Customer Information

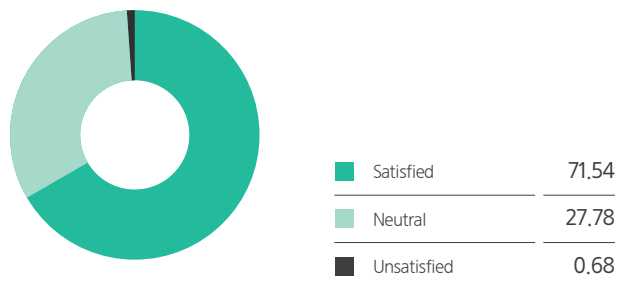
LOTTE E&C complies with statutory laws on the protection of personal information. Executive in charge of information protection and supervisor overseeing the protection of personal information are appointed, and the number of personal information handlers is minimized. We set internal management plans for personal information, and conduct regular training in the first and second half of every year for all the personal information handlers. As such, we do the best to protect customer information technically and managerially. We also establish an organizational system so that immediate actions could be taken when customer information leakage occurs. As a consequence of such efforts, there was zero accident of customer information leakage in 2015.

Management of the Happy Call Service

We gather data on customers' satisfaction with the after-sales service and customer complaints through the Happy Call Service, and utilize them as feedback information for improving customer satisfaction. The Happy Call Service is provided for every case of after-sales services registered. The call records are entered into the database and managed systematically in order to prevent similar inconveniences and complaints from recurring.

Level of Satisfaction on Happy Call

(Unit: %)

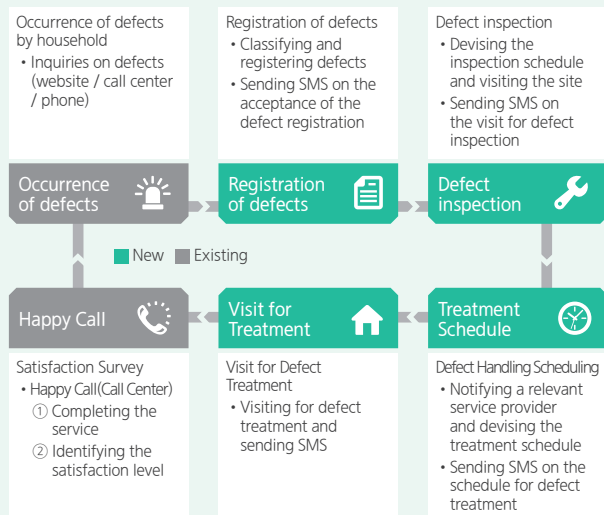


BUSINESS CASE | Improvement of the Defect Treatment Alert Service

We improved the defect treatment alert service as a way to strengthen corporate competitiveness down the road. We provide high-quality after-sales service based on mobile solutions by setting up a service to send text messages in each stage of defects within the defect treatment process. The number of building and rooms, and the content regarding the defects are generated in SMS. It is possible to check the transmission status, and manage the logs for the transmission, through which defect treatment plans, progress and follow-up status can be checked out.

Expected Results

- Minimizing customer complaints
- Enhancing the brand loyalty by forging strong relations with customers



Customer-Oriented Design

LOTTE E&C selects keywords for housing design for a given year on a yearly basis, and enhance customer value by proactively reflecting them on design and product development in line with customer needs.



Maximizing Safety

1 Safety Package

We have developed and apply a safety package for the safety of children and the elderly. Door frames and corners are made rounded to stop children hurting themselves on sharp corners. The top of the door frames is equipped with shock absorbers, while the bathroom wall is with a storage closet with a low-hanging mirror and a safety bar.

2 Dream Safety Box

We have developed and apply a safety holder for a fire extinguisher which can be applied inside a shoe closet in door steps (on the inside) where people take off their shoes. A fire extinguisher is provided to each household to protect against fire upon tenants' moving in. This prevents a bigger-scale accident when a safety accident occurs for not remembering where the fire extinguisher has been placed. It is designed to be also used as a umbrella stand to be both pragmatic and safe.

Developing Functionality-driven Furniture

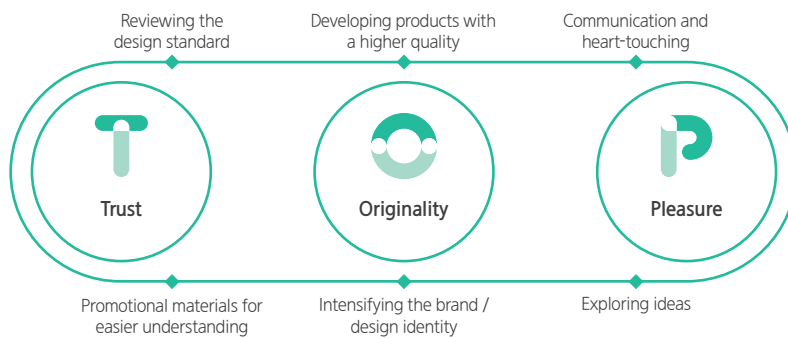
3 Dream Kitchen

We developed two options for kitchen tables - the standard type and a 5cm higher type - reflecting the trend where women's average height is higher than before and the number of men who cook is increasing. The baseboard of the lower cabinet was designed 5cm lower compared to competitors' to provide more storage space. Applying an exclusive storage space for frying pans, a large pullout-type net drawer and a multi-purpose hanger also enables easy tidying up.

4 Grooming Dressroom

We developed a dress room for men by reflecting the trend where the number of men's fashion items is increasing and a bedroom is used entirely for storage for quite a higher number of small families. The grooming dress room is equipped with not only a clothes hanger, a rack system and a drawer but also a standing dressing table and a space wall for storing and wearing men's clothes and accessories, and also for simple skincare, enabling one-stop styling.

Design keywords



2015 KEY PERFORMANCE



0.68%

Complaint rate for the Happy Call Service



90 times

Number of quality inspection



15 times

Quality Innovation Academy

Win-Win Management

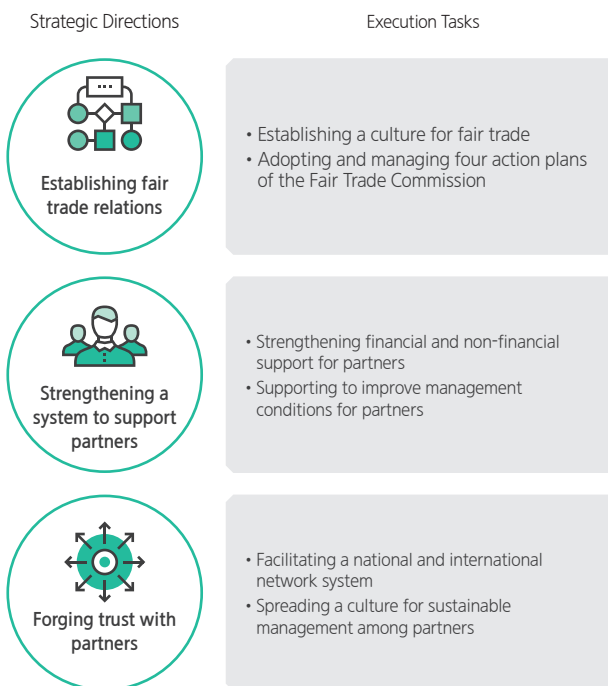


Approach to Win-Win Management

LOTTE E&C is creating a win-win culture where the scope of corporate competitions is perceived to cover the supply chain including partners, and growth can be achieved based on fair trade with them. To this end, we set a vision for win-win management: 'To be a leading company for mutual growth based on fair trade and interaction'. Accordingly, we set three strategic directions to 'establish a fair trade system', 'strengthen a support system for partners' and 'build trust with partners', and proactively implement execution tasks.

Vision and Strategies for Win-Win Management

To be a leading company for mutual growth based on fair trade and interaction



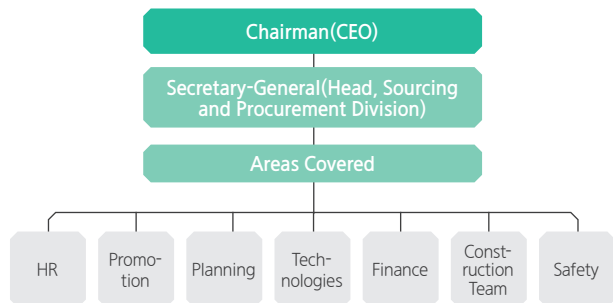
Major Activities for Win-Win Management

Strengthening the System to Execute Mutual Growth

Operating the Integrated Unit for Mutual Growth

LOTTE E&C runs the Mutual Growth Promotion Secretariat. Since 2011, it has initiated five tasks which include financial support, training support, technical support, expansion of exchanges, and establishment of a fair culture. We manage the Procurement Planning Team as an exclusive unit responsible for mutual growth for training and support for partners.

Secretariat for Mutual Growth



Devising the Standard for Executive Evaluation on Mutual Growth

Since 2011, we have reflected track records of procurement executives on their evaluation items as we strengthen our driving force for mutual growth. Evaluation items consist of integrity in complying with the terms and regulations of the agreement.

Efforts have been intensified for mutual growth in the Group level. In the evaluation items for the Group's affiliates, LOTTE Group established a standard for evaluating mutual growth, and reflects affiliates' track records on mutual growth according to the standard for evaluating affiliates. LOTTE E&C responds to the evaluation in full swing.

Notification System for Information on Consignment

We notify consignment information including new construction sites in advance via partner company portal sites created for partners to share relevant information.

Partners can check information including the amount of subcontract, construction period and location of sites via partners' portal (<http://partner.lottenc.com>). We provide conveniences to enable thorough review prior to signing consignment agreements.

Establishing a Fair Trade Order

| Establishing a Fair Culture

LOTTE E&C has implemented four action plans and standard subcontract agreement operates them with integrity for the establishment of fair subcontract transaction orders between large and small companies. This helps to forge a fair and horizontal partnership with partners.




Establishing a Fair Culture

- Adopting and operating action plans for Agreement Signing
- Adopting and operating the Partner Selection and Operation action plans
- Adopting and operating the Internal Deliberation Committee action plans on Subcontracting
- Adopting and operating the action plans on Issuance in Writing and Preservation
- Adopting and operating the Standard Subcontract Agreement

| Improving Awareness of Mutual Growth among Employees


In order to improve awareness of mutual growth among employees and spread a culture of growing together, we conduct autonomous monitoring, employee training and regular meetings. We also launch mutual growth campaigns to raise awareness of the topic.

Improving Awareness of Mutual Growth among Employees




Autonomous Monitoring

- Monitoring subcontracting requirements and status of practicing mutual growth
- Monitoring regulatory changes and violation cases on bidding



Training on Subcontracting Laws

- Training on subcontracting for employees to establish a fair culture and minimize disputes on subcontracting
- Conducting an on-site lecture circuit by external specialists and executives / employees



Regular Meetings on Mutual Growth

- Organizing regular meetings attended by construction team directors of major units and business divisions to check the status quo
- Sharing ideas, complaints and proposals for improvement of sites
- Reflecting suggested agenda in policies for mutual growth

Enhancing Risk Management for Partnerships

| Fair Partner Selection Process

LOTTE E&C notifies the partner registration and management standard on the website and partner company portal sites to raise transparency and fairness in selecting and managing partners.

We set up the 'Fair Bidding Management System', a monitoring system on the status on the bidding entry of partners, to give fair trading opportunities to partners.



Fair Bidding Management System

- Indicating approval of the number of participants in bidding in the previous year and / or this year to give fair opportunities upon consultation on bidding
- Monitoring the status of participation in bidding by process in real time
- Managing the system to automatically recommend partners for bidding

| Partner evaluation system

Regular evaluation is conducted by the relevant site and the headquarters once a year in January, while occasional evaluation takes place every month to prevent problems from occurring.


Incentives for competent partners include the extension of contracting opportunities, exemption & reduction of the performance bond policy, and reward and financial support, thereby maintaining a trust-based partnership.

| Regular Risk Management for Partners

In order to manage beforehand the partner-related risks such as bankruptcy and court receivership, non-payment of proceeds and collusion, we implement various risk management activities including tighter management of contract securities, introduction of the payment delay prevention system, insolvent company trade rate monitoring and credit rating monitoring.


 **BUSINESS CASE | Setting Up the Delayed Payment Prevention System for Partners**

We introduced the delayed payment prevention system for partners to manage complaints beforehand resulting from non-payment of proceeds, while preventing payment-related accidents of partners. This helps to secure the reliability of materials for proving the payment records, and monitoring the payment delay status by site and partner in real time in order to prevent partners' delays in payment.



Preventing Accidents

- Preventing payment accidents beforehand
- Preventing complaints resulting from non-payment(delayed payment)
- Reducing cost and personnel for solving construction delays and non-payment, etc.



Implementing Convenient Payment Management Functions

- Simplifying document writing and reporting
- Minimizing tasks on claim and transfer
- Effectively managing payment delays and non-paying partners through real-time monitoring

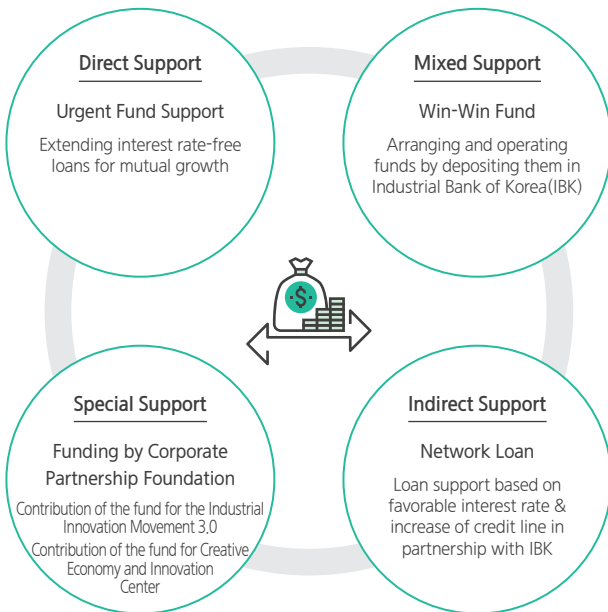
Diversifying Efforts for Win-Win Cooperation for Partners

Fund Support

Financial Support

We provide various types of financial support including, direct, mixed, indirect and special ones to enable stable growth of partners.

Financial Support



Improvement in Payment Conditions of Subcontract

LOTTE E&C makes payments 100% in cash or cash equivalents to improve our partners' cash-flow, and aim to steadily increase the proportion of cash payment. We also support partners' smooth financial flow by ensuring payment within 13 days.

Reasonable Adjustment of the Delivery Unit Cost

LOTTE E&C complies with the standard for adjustment of the delivery unit cost on standard subcontract agreements, which is indicated in the fair trade and mutual growth agreements and subcontract agreements. Accordingly, we reflect price variations of raw materials to the unit price of the supplied products after a review.

Training and Support for Strengthening Competencies


Training Support for Partners

LOTTE E&C fully utilizes 'LOTTE Mutual Growth Academy' managed by LOTTE Group, providing systematic and professional education and training to partners. In 2015, we organized a competency buildup training camp for working-level staff from 95 partner companies. We also opened 400 online courses to offer courses on construction practices, languages and self-development for employees of partners.

By consigning training to Korea Productivity Center, a specialized training institute, we provided training on finance, taxation, cost accounting and marketing to 171 partners.

Providing Management Consulting Services

In order to diagnose the management status of partners and improve their productivity, we provided financial consulting aligned with professional accountants from credit rating agencies. LOTTE E&C covered the total expense for consulting. Advisory consultation was also offered to improve management weaknesses of partners by engaging in the Management Doctor program organized by the Large and Small Business Cooperation Center of the Federation of Korean Industries.



Management Doctor Program

- Paving the way for medium-and long-term growth of partners through consulting from advisory members with abundant on-site experiences on six area including management strategies & techniques / production / quality, marketing & HR / labor & fund / finance and sales channel expansion



Consulting Activity

- Managing consulting programs specialized in financial items of partners
- Seeking to raise credit ratings and strengthening competencies in taxation / accounting / finance by finding areas for improvement and setbacks in corporate management to improve the cost ratio and the financial structure

Support for Sales Expansion

LOTTE E&C contributes to the sales expansion of partners by jointly developing new products with partners and applying them to the sites of LOTTE CASTLE. In 2015, LOTTE E&C participated in purchasing seminars organized by the Small and Medium Business Administration and the Corporate Partnership Foundation, introducing the management scheme for partners and conducted guidance on partner recruitment plans and registration procedures. As such, we provided opportunities for partners to explore new sales channels.

| Expansion of Exchanges

We listen to complaints of partners based on regular exchanges with partners and share ideas with them. We strive to communicate with them through diverse channels.

The CEO's Site Visits

The CEO of LOTTE E&C seeks for ways for mutual development by listening to complaints of the partners and visits sites in person. He takes various feedbacks from the sites to proactively discuss and reflect them on corporate management. In 2015, we listened to vivid feedback of partner's CEO and employees by visiting 10 sites including Geumcheon LOTTE CASTLE Gold Park, LOTTE MALL Eunpyeong and Section 920 of Seoul Subway Line.



CEO's Site Visit

Domestic Training For Partners

LOTTE E&C shares a culture for mutual growth through 'LOTTE Partners', a gathering of partners. We conducted special training inviting external instructors and also held training in Korea for the CEOs taking part in 'LOTTE Partners'. We also held CEO seminars, seeking for directions for mutual development.



Training in Korea for Partners

| Technical Support

We conduct joint development of construction techniques, support for patent filing and implement the performance sharing system for partners to upgrade their technical competitiveness and secure growth engines.

Joint R&D


We proactively support partners' technological development to strengthen their competitiveness. During 2015, we supported 25 cases including new technologies on construction and development of new products, which included two cases for joint new technology registration and 23 cases for filing of new design registration. Moreover, we scaled up our support for joint R&D by extending a total of USD 0.3 million for three of such projects.

Performance Sharing System

We adopted the performance sharing system for the first time as a Korean construction company and paid rewards for sharing performance with partners, thus suggesting new directions for mutual growth. We have maintained the corporate accreditation for the performance sharing system since 2012 when we signed the agreement to spread the system in partnership with the Ministry of Knowledge Economy. In 2015, we achieved 13 cases including 6 cases for new assignments registered and 7 cases for the completion of the issuance of assignment certificates.

Status of Major Partners

LOTTE E&C have forged partnership ties with 4,383 partners as of 2015-end, among which 190 companies are new partners. Most partners are outsourcing companies in architecture, civil works, etc. that support construction and procurement partners that supply equipment. Stronger competitiveness of partners boosts our competitiveness, so we recognize partnering companies as the partners that enhance our competitiveness and values and grow together with us.



Types of Partners

Outsourcing Partners

- Businesses holding statutory licenses on construction including the Basic Act on the Construction Industry
- Supporting construction in such fields as architecture, civil engineering, machinery, electricity and service, etc.

Procurement Partners

- Businesses that hold licenses in construction and environment or those that can supply related items
- Supplying equipment on architecture, civil works, machinery and electricity and plant equipment

2015 KEY PERFORMANCE



Social Sharing Management



Approach to Sharing Management

LOTTE E&C selects items for social contribution activities to utilize the expertise of our human resources and our strengths as a construction company, and conduct community-focused activities based on our sites and communities.

In particular, in order to achieve the vision of sharing management, 'a love sharing company that grows with communities', we set strategic directions such as 'establishing representative social contribution projects', 'facilitating site-oriented volunteering groups', and 'paving the way for social contribution'. Accordingly, we implement execution tasks aligned to these goals.

Vision for Sharing Management

A love-sharing company achieving growth with local communities

Strategic Directions

Execution Tasks



- Strengthening and expanding representative social contribution programs



- Unfolding community-centered social contribution
- Expanding social contribution activities abroad



- Encouraging to participate in the Matching Grant
- Facilitating activities of the Charlotte Volunteering Group

Major Sharing Management Activities

Clarifying Social Contribution Principles and Organizing Units

| Principles for Social Contribution

LOTTE E&C's principles for social contribution include 'Returning Profits to Society' through the completion of corporate social responsibilities and 'voluntary participation', which is driven by a strong passion of employees.

| Organizing Units for Social Contribution

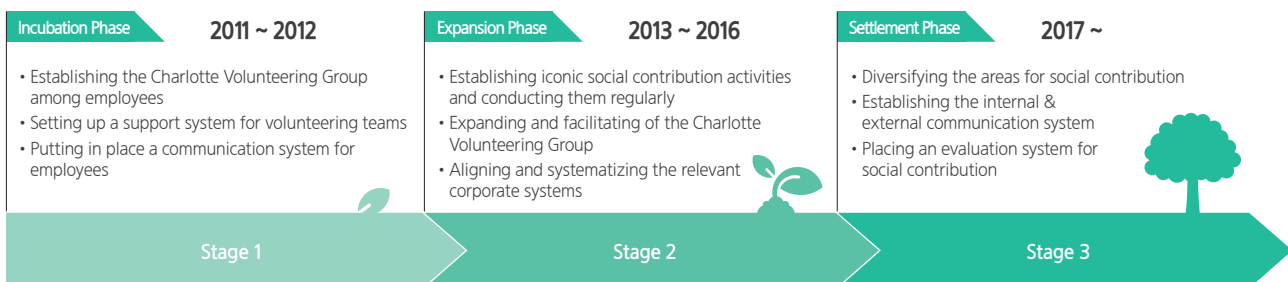
LOTTE E&C manages the Social Contribution Committee under the Sustainability Council. The committee sets social contribution strategies, manages the operation of the Charlotte Volunteering Group, a corporate volunteering team, establishes and implements plans on special projects for social contribution, and raises funds. As such, it serves as a control tower for company-wide social contribution activities.

| Roadmap for Social Contribution

LOTTE E&C conducts activities based on the 'Social Contribution Roadmap' to sustain long-term and systematic social contribution activities.

In 2015, the Charlotte Volunteering Group participated by employees was expanded into 122 teams, and we improved the consent process for employees to easily take part in the matching grant system.

Roadmap for Social Contribution



Major Social Contribution Activities

| Love House of Dreams and Hopes

Activities of the Love House of Dreams and Hopes are to support repair and maintenance of social welfare centers and housings of the underprivileged. In 2015, we were engaged in activities to improve facilities and give out goods through talent donation of 62 employees to a local childcare center in Geumcheon-gu, Seoul and low-income households in Dong-gu, Busan.

In April 2016, carrying on the similar efforts in 2015, the CEO of LOTTE E&C took part in a project to improve the facility of a welfare childcare center and to contribute daily necessities. It was a memorable time for us as we could deepen the genuineness of social contribution activities.

| Briquette of Love-Sharing Activity

The 'Briquette of Love-Sharing' activity has been carried out since 2012 as a key social contribution program. In 2015, 132 employees including heads of Housing Division / Management Support Division gave out 40,000 pieces of briquettes and 1,000 boxes of instant noodle by visiting the underprivileged in Seoul and Busan.



Briquette of Love-Sharing Activity

| Love-sharing and Family Adding Program

LOTTE E&C's Love-sharing and Family Love Adding Program is held every year with the participation of employees and their families by signing a sisterhood relationship with the National Memorial Board on June 24, 2014.

In 2015, 108 employees and their family members laid wreaths in the cemetery and conducted charity work, practicing social sharing and forming a family-friendly corporate culture. Moreover, we help employees' children learn and feel gratitude about the devotion of patriots in the history of Korea as they pay homage to the war dead and participate in field trips.



Love-sharing and Family Adding Program




BUSINESS CASE | Expansion of the Educational Donation Program

We operate our educational donation program to cheer for the dreams and passion of youths as the leaders of the future and contribute to the development of future talents. We fully utilize the major buildings of LOTTE E&C, knowledge of employees and our expertise in the construction sector for youths to passionately seek for career paths in multiple areas.

In 2015, LOTTE E&C conducted a career education and guidance program for high school teachers and a student experiential program in LOTTE WORLD TOWER.



Major Activities in 2015

 <p>Programs for Career Counseling Teachers</p>	<ul style="list-style-type: none"> • Timeline: 1st and 2nd half of 2015(6 times in total) • Venue: Site of LOTTE WORLD TOWER • Targets: 120 high school teachers • Content: Introduction to LOTTE E&C and LOTTE WORLD TOWER, and introduction to departments and job functions related to the construction business
 <p>Student Experiential Program</p>	<ul style="list-style-type: none"> • Timeline: July 24, 2015(Friday) • Venue: Site of LOTTE WORLD TOWER • Targets: 25 high school students • Content: Introduction to LOTTE WORLD TOWER, the construction business, major job functions in the construction industry
 <p>'Dream Sketch', a Program to Support Free Learning Semesters</p>	<ul style="list-style-type: none"> • Timeline: November 20, 2015(Friday) • Venue: Site of LOTTE WORLD TOWER • Targets: 19 middle school students • Content: Introduction to LOTTE WORLD TOWER and on-site employees' daily routine, paper crafting of a high-rise building

Plans for Social Contribution

LOTTE E&C strives to fulfill social responsibilities as a corporate citizen by performing social contribution activities continuously, and by growing along with communities.

As a part of such activities, we focused on establishing a system for social contribution and strengthening foundation for social contribution and the efforts will continue in 2016.

Social Contribution System



Facilitating Social Contribution

Initiating Key Social Contribution Programs and Exploring New Ones

We will continuously initiate key social contribution programs to secure continuity of the activities. Moreover, we will expand social contribution activities to practice sharing with communities along with stakeholders such as customers and partners

Expanding the Basis for Social Contribution

Expanding Domestic and Global Activities of Employee Volunteering Teams

By 2016, we expect the number of volunteering teams to increase from 122 to 140 in order to expand the foundation for social contribution activities. We also plan to facilitate their participation by encouraging volunteering teams in new sites at home and abroad, by continuous management of the teams.

Encouraging Employees to Participate in the Matching Grant

In order to secure stable resources for the charity fund, we plan to introduce the Matching Grant program when recruiting new and experienced employees and post as pop-up on our information system. We also plan to encourage employees to take part in the program by sending an official letter so that 82% of the total can participate by end of 2016.

Setting the Regular Schedule for Social Contribution

We plan to set the regular schedule for social contribution for employees to incorporate the volunteering mindset, post it in the intranet and share it with employees.

Schedule for Social Contribution Activities, 2016

May 12	May 28	September	October	November
Love House of Dreams and Hopes - Geumcheon-gu, Seoul	Love-sharing and Family Adding Program (1 st half of the year) - National Memorial Board	2015 Love-sharing and Family Adding Program (2 nd half of the year) - National Memorial Board	Love House of Dreams and Hopes - Nam-gu, Busan	Briquette of Love-Sharing Activity - In Seoul (104 Village) - In Busan (Maechukji Village)

Performance of Social Contribution Activities

LOTTE E&C returns corporate competencies and resources to the society and shares values with communities.

In 2015, the amount of expenses for social contribution amounted to about USD 4.73 million, and 122 employee volunteering teams consisting of 1,473 employees spent 5,873 hours for social contribution activities.

2015 KEY PERFORMANCE



USD **4.73** million
Expenses for social contribution



1,473 people
Employees taking part in social contribution activities



5,873 hours
Hours of volunteering by employees

BUILD A GREAT FUTURE



LOTTE E&C has generated social and environmental values along with economic values in wide-ranging business fields based on a belief that we should enhance social responsibilities and perform our roles in achieving a greater happiness for the future.

- 88 Sustainable Corporate Governance
- 90 Advanced Risk Management
- 91 Securing Technology Leadership

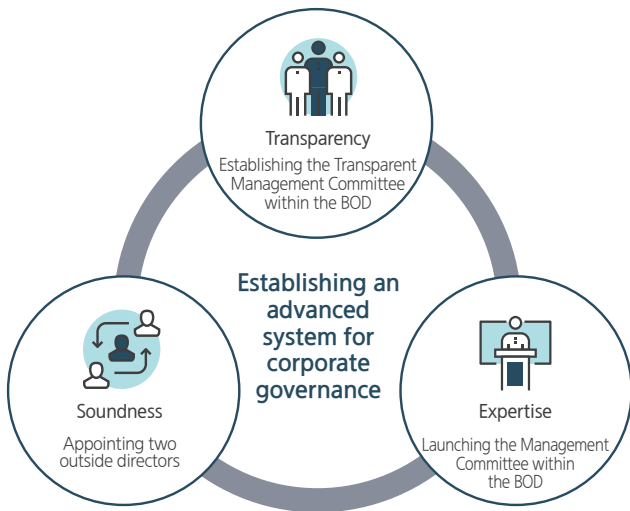
Sustainable Corporate Governance

Endeavors to Improve Corporate Governance

In November 2015, LOTTE Group announced that all affiliates including the unlisted companies with assets over KRW 300 billion (approx. USD 265 million) would have outside director(s) appointed. Furthermore, all affiliates with assets over KRW 1 trillion (approx. USD 884 million) or greater would appoint one fourth of the directors as outside directors and would devise measure to improve transparency in internal trading by launching of Transparent Management Committee.

In accordance with the measures of the Group, LOTTE E&C completed the revision of the Articles of Incorporation to introduce the outside director system and establish the committee at the regular shareholders' meeting in March 2016. Outside directors were newly appointed through the deliberation of the shareholders' meeting in March 2016, thus strengthening the check and balance, soundness and expertise for the decision-making process of majority shareholders.

Endeavors to Improve Corporate Governance



Composition and Management of the BOD

LOTTE E&C's top decision-making body is the BOD (Board of Directors) elected at the general shareholder's meeting. As of 2016, the BOD constitutes eight directors including four inside directors, two others executive directors and two outside director.

Regular BOD meetings are held once every month. In addition to regular meetings, BOD meetings can be held on demand. In 2015, the BOD meetings were held 36 times and its members voted on 138 agenda.

Composition of the BOD

(as of June-end, 2016)

Title	Names	Position
Inside Directors	Chee Hyun Kim	(Current) President and CEO
	Suk Joo Ha	(Current) Head, Housing Division and Management Support Division
	Hee Cheol Seok	(Current) Head, Construction Division of LOTTE WORLD TOWER
	Sang Yeol Lee	(Current) Head, Civil Engineering Division
Outside Directors	Ho Joong Kim	(Current) Professor at Business School of Konkuk University Professional Review Board Member at the Financial Supervisory Service Ph.D. in Business Administration, Georgia State University
	Young Myon Lee	(Current) Professor at Business School of Dongguk University Public Interest Member, National Labor Relations Commission Ph.D. in Labor and Industrial Relation, University of Minnesota
Others Executive Directors	Kyuk Ho Shin	(Current) General Chairman of LOTTE Group
	Young Ja Shin	(Current) Chairwoman of LOTTE Foundation

Independence of the BOD

LOTTE E&C defines the BOD through the decision-making procedure within the BOD regulations to ensure its independence.

- ① The quorum for a meeting of the Board should be majority of the Board and decisions will be made by majority rule. All or some directors are allowed to attend the meeting via any form of communication methods which can send and receive video and sound signals. In this case, the directors are considered present at the meeting.
- ② The voting rights of the directors cannot be exercised if they have a special interest in the decisions to be made on the agenda. In this case, the number of voting rights which cannot be exercised are not calculated in the number of voting rights of directors that are present.
- ③ Directors cannot exercise the decision-making right at the Board in proxy.

Sub-committees of the BOD

LOTTE E&C launched the Management Committee consisting of three inside directors including the CEO within the BOD in order to deliberate on general management matters consigned by the BOD in March 2016. Moreover, the Transparent Management Committee was launched consisting of two outside directors and one inside director to enhance the transparency of internal trading with affiliated persons and affiliates.

Status of Committees

Type	Composition	Purpose of Establishment and Rights
Management Committee	3 insider directors (including the CEO)	Deliberating / Deciding on general management matters entrusted by the BOD
Transparent Management Committee	2 outside directors 1 inside director	Deliberating on negotiated contracts of a certain scale or higher with affiliated persons and affiliates

Auditing

In LOTTE E&C, an auditor who is appointed by vote at the general shareholder's meeting conducts auditing.

The auditor has a right to attend the BOD meetings, supervise the BOD's tasks independently and ask a department to submit related documents on overall business activities. Also, the auditor is to be briefed by the company over its business and handles management information in an appropriate manner.

Evaluation and Reward

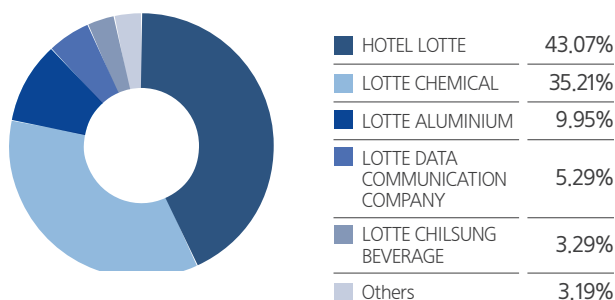
Directors and auditors of LOTTE E&C are rewarded within the limit approved at the general shareholder's meeting. Financial and non-financial performances of the management are evaluated and yearly salaries and incentives are determined accordingly. The peak amount of remuneration for directors(including non-registered executives) was set as USD 20.68 million at the 2015 general shareholder's meeting. In 2015, USD 3.62 million was paid to the registered directors during the year, and the average compensation per head is USD 0.58 million.

Composition of Shareholders

LOTTE E&C's largest shareholder is HOTEL LOTTE Co. Ltd., and its equity(ratio) is 43.07% except for preferred stocks without voting rights.

Status of Shareholders' Equity

(on the basis of common stocks as of June-end, 2016)



Management of the Sustainability Council

LOTTE E&C established the Secretariat for Sustainability Management and Development("Sustainability Secretariat"), which operates and oversees sustainability management in an integrated manner under the CEO's supervision. We are also running the Sustainability Council made up of six committees for each division.

As a decision-making body which discusses and decides on issues related to sustainability management planning and strategy, the council is also conducting programs to raise awareness of sustainability among internal and external stakeholders.

The Sustainability Secretariat is in charge of establishing mid-and long-term sustainability strategies, setting directions and goals for individual division, managing division performance, and responding to external policies and regulations.

Organizational Chart of the Sustainability Council



Management of Six Sustainability Sub-committees

For the Six Sub-committees within the Sustainability Council, we analyze internal and external issues as well as the management environment through environmental analysis and benchmarking. Action plans are selected and implemented for major agenda, and 43 action plans are initiated as of 2015-end.

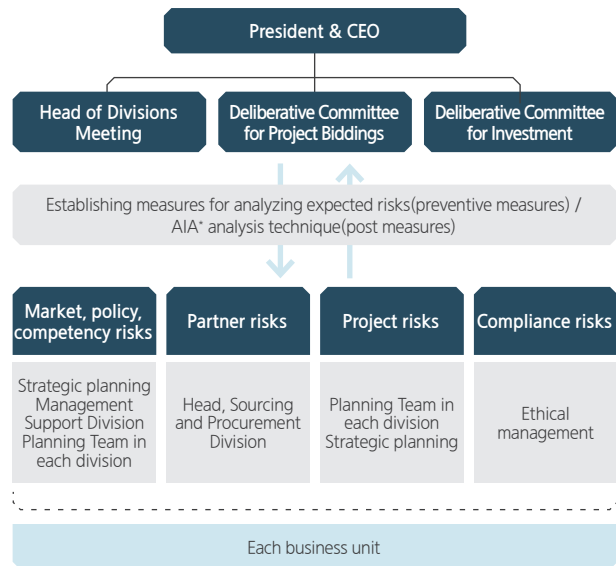
Status of Six Sustainability Sub-committees

Sub-committees	Key Action Plans
Ethical Management Subcommittee	<ul style="list-style-type: none"> Improving infrastructure for ethical management and conducting the diagnosis of levels Raising the awareness about ethical management of employees and partners, and improving corporate culture
Safety Environment Management Subcommittee	<ul style="list-style-type: none"> Initiating activities to boost safety for employees and partners and improve the safety culture Improving the safety and health system
Customer Satisfaction Management Subcommittee	<ul style="list-style-type: none"> Improving the construction quality Developing customer-centered products Expanding customer communication
Shared Growth Subcommittee	<ul style="list-style-type: none"> Establishing a system and a culture for fair trade Supporting partners and forming trust relationships
Social Contribution Subcommittee	<ul style="list-style-type: none"> Conducting community-focused social contribution targeting recipients Expanding the culture of voluntary engagement of employees in social contribution
HR Subcommittee	<ul style="list-style-type: none"> Improving institutions for a work-life balance Spreading the culture of respecting diversity

Advanced Risk Management

Organization for Risk Management

LOTTE E&C operates a unit to respond to each risk area and a decision-making system, and establish a pre / post review process including the head of divisions' meetings organized by directors, Deliberative Committee for Project Biddings and Deliberative Committee for Investment. By having the risk management unit, we aim to conduct advanced risk management practices.



* AIA: After Instant Analysis

Managing and Responding to Major Risks

We strengthen sound management by defining six major risks, regularly monitoring them in each sector and establishing counter-measures.

An increasing demand for compliance in both domestic and overseas markets

Declaration of the code of conduct to comply with anti-corruption laws and global standards, as well as training of expatriate employees on compliance manuals

Possibilities of shrinking construction industry due to socio-economic factors in both domestic and overseas markets

Periodic quantitative and qualitative market analysis and reflecting them in corporate strategies

The need to manage the employer's management philosophy, project feasibility, funding method, project schedule, interests of each stakeholders, contingent liabilities, impacts to the local environment and etc.

Strengthening of management soundness through strict feasibility review from management-level decision-making process



Changes in domestic policies(bidding, housing, electricity supply and demand) and foreign policies(bidding, real estate development, investment, etc.)

Frequent analysis on policy / system trends to come up with own measures and / or proposals to the government

The need for cooperative systems with major domestic and foreign partners due to growing project scale and complexity

Discovering potential domestic and foreign partners and strengthening cooperative measures with outstanding partners

Generalization of design & build and EPC contracts among firms as well as growing number of direct investments including financing arrangements and project financing

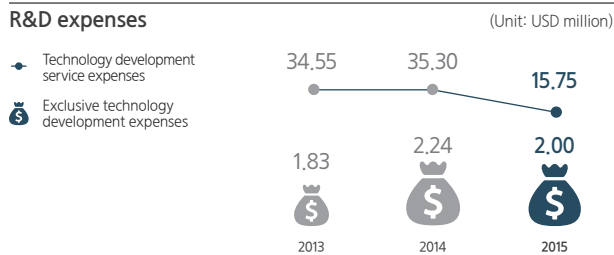
Competency enhancement all throughout the value chain such as design engineering, financing capabilities and etc.

Securing Technology Leadership

Strengthening R&D Infrastructure

| R&D Investment and Organization

We strengthen our corporate competitiveness through steady investment in R&D. From operations of our R&D organizations, Infrastructure Research Team, Building Research Team and Future Technology Research Team we initiate new growth projects in architectural, civil, environmental and plant works. We also focus on R&D activities to achieve cost innovation and technology commercialization.



* Limited to exclusive technology development expenses and technology development service expenses among the total R&D expenses

| Strategic Directions

LOTTE E&C secures component technologies commonly applied in diverse business areas as well as core technologies for each product in each sector. From self-development and collaboration with experts in external organizations, in order to provide optimized total solutions to customers.

In 2016, we plan to conduct activities under goals such as intensification of R&D in specialized technologies, cost innovation, and building up the technological process.

Slogan	Leading the future growth through core technology development and R&D commercialization.		
Goals	R&D aligned with commercialization <ul style="list-style-type: none"> Securing source technologies to advance into high value-added business Initiating commercialization through R&D 	Cost innovation <ul style="list-style-type: none"> Contribute to achieving the targeted cost rate reduction Developing and applying VE items and cost reduction technologies 	Building up global technologies <ul style="list-style-type: none"> Developing technologies to strengthen technological competitiveness for overseas business Constructing technology database in each strategic area

| Major Activities

We not only secure technologies, but also conduct on-site technical support including technology proposals at the marketing & sales stage, value engineering at the design and construction stage, and construction method feasibility studies, all in order to actually apply the secured technologies.

Services are also performed to contribute to precision-based construction, technical safety and productivity enhancement.

Expansion of the Value Chain

- Securing component technologies as total solutions to expand the comprehensive business areas ranging from design, engineering and construction to planning and management of construction projects and maintenance of facilities

Strengthening Global Technological Competencies

- Developing global leading technologies and application processes
- Accumulating global technological know-how through training for each key area
- Strengthening company-wide core competencies by disseminating it in the company

Open Innovation R&D

- Reflecting the market and customer values through the integrated management of internal and external technological networks
- Implementing the R&D management system in creating new values

R&D(Business Development)

- Providing site-oriented technical support
- Developing profit-oriented technologies by commercializing the R&D performance

Status of IPRs (Unit: Number of Cases)



Technologies to Lead the Future Market

| Construction Technologies for High-Rise Buildings

Construction of a high-rise building of 1,000m or higher requires techniques as mixing design of high-strength concrete of over 100MPa, stable production and quality management and vertical pumping. Due to a high amount of small powder of ultra-high-strength concrete of 100MPa, viscosity could go up, which might block the pipeline upon high-pressure pumping.

LOTTE E&C successfully performed pumping at the vertical height of 500m for the first time in the world by developing low-viscosity ultra-high-strength concrete of 150MPa.

We have established exclusive technical competitiveness in the high-rise construction market by securing track records of building a high-rise of over 500m and core element technologies.



The site where the UHSC vertical pumping was successful for the first time in world at 150MPa*

* Mega pascal, the strength to support the load of 1.5 tons per unit area of 1cm²

| Reinforcement Method for Unsound Double-Deck

Since double-deck tunnels have emerged as a new alternative to scatter the on-ground traffic volume in the metropolitan area, we conduct researches on developing technologies for double-deck tunnels in an urban area, a core construction technology. A double-deck tunnel refers to a tunnel where two and more decks exist on a cross-section of a tunnel, combining parallel tunnels where lanes bound away and to the city area are separately in place. In a double-deck tunnel, the underground space can be efficiently utilized and excavation cost can be saved compared to a parallel tunnel. Moreover, circular cross-sections can be constructed so a double-deck tunnel allows multiple usages using upper and lower spaces.

In order to secure stability in the special areas of unsound double-deck tunnel (underground diverging area / inflow and outflow area / closely spaced tunnel), we developed a ground reinforcement technology as a key research topic in 2015. The reinforcement material's effective was identified in an interpretative approach. The effects will be verified through the pilot production and tunnel construction. We also promote the reinforcement technique under development by making a prototype.



An exhibition booth for the reinforcement method for unsound double-deck tunnels at the 2016 Land, Infrastructure and Transport Technology Fair

| Super Long-span Bridge Technique

Super-long-span bridges such as cable-stayed bridges and suspension bridges are high-tech, high value-added construction works that serve as regional landmarks. However contracts for these works have been limited to four or five domestic construction companies.

LOTTE E&C completed the construction of Donggi Bridge - Korea's first long-span, earth-anchored* composite cable-stayed bridge** (main span length of 400m, and the steel pylon height of 100m), accumulating experiences of cable configuration management and construction, and securing the related personnel. Based on the experience, we are constructing Sandaldo Suspension Bridge(main span length of 150m), a concrete cable-stayed bridge. Construction of Donggi Bridge(Section 2 of Jeokseong-Jeongok, 2009~2016) and Sandaldo Suspension Bridge(2013~2018 tentative) will place LOTTE E&C as a dominant player in the sector.

* Long-span, earth-anchored method: a method of fixing cables on an additional structure in a bridge where the length between pylons is long

** Cable-stayed bridge: a technique of scaffolding the bridge deck only with cables coming down from the steel pylon



Donggi Bridge, Korea's first long-span, earth-anchored composite cable-stayed bridge

| BIB Girder Technique

The BIB(Block Integral Bridge) girder technique* improved the driving performance of vehicles by removing expansion joints from general joint bridges as an eco-friendly technique saving cost because no maintenance is needed for expansion joints.

* New Construction Technology No. 774 - Semi-Integral Bridge with PSC Girder Integrating End-Diaphragm

| Establishing Structure Health Monitoring

The 'Structure Health Monitoring' is a system to diagnose the extent and location of damage to a building by using the measurement equipment including the accelerometer and GPS. It is operated in the order of the following: measuring the behavior of a structure, evaluating the structural damage, devising responsive measures and transmitting information in real time. The entire operation process is controlled by the structure health monitoring server system. In case of need, the extent of damage to a structure and a responsive measure can be transmitted in real time to its manager and user. Core components of the structure health monitoring are: the sensor and measurement system, autonomous diagnosis system for the damage to the structure and the decision-making system including the response scenario. The monitoring system is completed for the safety of residents. (applied to Songdo Campus Town site)

Technologies for Creating Environmental Values

| Advanced Sewage & Wastewater Treatment Technology(LMBR)

The LMBR(LOTTE Membrane Bio-Reactor) is an advanced sewage water treatment technology to separate pollutants by placing thin-film flat separation membranes serving as filters in a biological reactor, and to remove and sterilize the phosphorous ingredients, chroma and pollutants using ozone. It has been proved to be highly efficient in removing phosphor in water.

It is applied to the wastewater treatment facility of LOTTE CHILSUNG LIQUOR's Cheongju Soju Factory requiring thorough operational management and stably-treated water quality. We plan to develop technologies to be expanded and applied to sites of home and abroad by leveraging operational data.

Key Performance of LMBR

<p>Acquisition of IPRs 1 new technology, 1 international patent No. 436 for LMBR New Environmental Technology, international patent for wastewater treatment equipment</p>
<p>Academic presentation 1 abroad, 1 domestic SIWW2014 The Membrane Society Of Korea Promotion Major newspapers and 33 other items</p>
<p>Track records of application LOTTE CHILSUNG LIQUOR's Cheongju Soju Factory 1,000tons/day</p>

| AGS Advanced Wastewater Treatment Technique

AGS^{*} is a high-density microorganism agent produced through the self-fixation^{**} of microorganisms. Due to its excellent anti-toxicity, high-load responsiveness and precipitability, the technique is expected to bring land saving of 50% and energy saving of 60% compared to the general biological wastewater treatment techniques. LOTTE E&C has acquired the IPR^{***} for developing the advanced wastewater treatment technique using AGS, carrying out research in a test-bed plant of 220m³ since 2015. We focus on securing source technologies to lead the future water treatment business through the development of wastewater treatment system of high efficiency, low cost and low maintenance along with high applicability

^{*} AGS(Aerobic Granular Sludge): an aerobic granular sludge which granulates active microorganisms

^{**} Self-fixation method: a method of granulating with microorganisms alone without a scaffold

^{***} Patent No. 10-1613711: Equipment to Select Aerobic Granular Sludge

| Organic Waste Drying and Fueling Technology

LOTTE E&C developed a technology of dehydrating and drying organic wastes including sludge which is generated in wastewater treatment plants, reducing the water content rate from 80% to 10%, and producing fuel. Consequently, we acquired the green technology certification from the Ministry of Environment. The technology is an eco-friendly one which reduces the fossil fuel energy by over 30% used in the process of drying, and cuts the drying time by about 50%. The dry fuel generated can be used as an auxiliary fuel in thermal power plants, etc.

^{*} Green Certification GT-16-00004 / Patent No. 10-1558459



An organic waste drying and fueling plant being researched for commercialization

| LID Water Management System

The LID(Low Impact Development) Water Management System is a low-impact development technique to resolve distortion of the water circulation resulting from urbanization, climate and so forth. It is an efficient rainwater management technique.

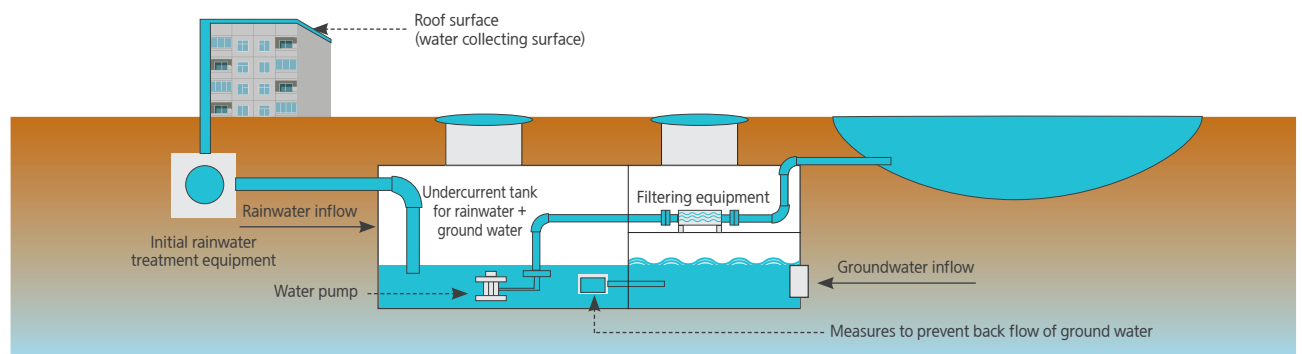
LOTTE E&C has acquired an IPR^{*} by developing the 'ground water-aligned rainwater utilization system' for the first time in Korea, which is related to LID water management system by engaging in a national research center researching the technology on city water circulation-low impact development since 2012. We have installed and have been operating a test bed in the scale of 60m³ in the LID Test Bed operated by the national research center.

The system is a facility to utilize both rainwater and ground water, enabling the rainwater collected from building rooftops and floor pavements, and the surplus ground water amid the higher underground water level to be injected to a rainwater reservoir for water usages. It can enhance the water utilization efficiency and will be gradually expanded to the design of eco-friendly buildings.

^{*} Patent No. 10-1433076: rainwater runoff and ground water management system

^{*} Patent No. 10-1566948: Ground Water and Rainwater Management Equipment

Rainwater utilization system aligned with ground water



Technology for a Higher Quality of Life for Customers

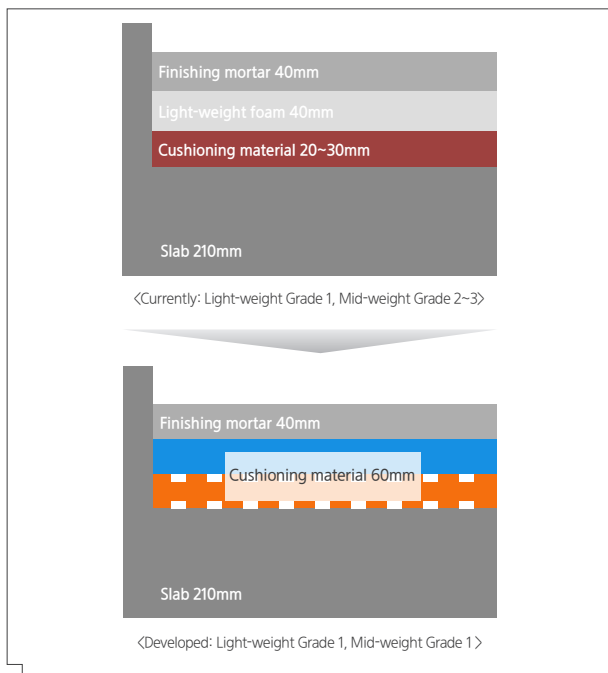
| Highest-Grade Inter-Floor Noise Insulation Technology

LOTTE E&C developed the highest-grade apartment inter-floor noise insulation structure to completely block the inter-floor noise. The inter-floor cushioning material driven by a core technology was made 2~3 times thicker than the ordinary ones, and special configuration was applied to effectively absorb noise to dramatically enhance the noise insulation performance.

We developed a process to put the raw materials which are lost in the process of manufacturing the cushioning material again in the production process, thus boosting eco-friendly performance by minimizing the environmental impact.

We had our patent registered* on the special configuration and the eco-friendly manufacturing process of the inter-floor noise cushioning material, which will be applied to LOTTE CASTLE in the future following testing on pilot products.

* Patent Registration No. 10-2016-0063388 (registration completed in May 2016)



Conceptual drawing of the highest-grade apartment inter-floor noise insulation structure

| Two-way Void Slab

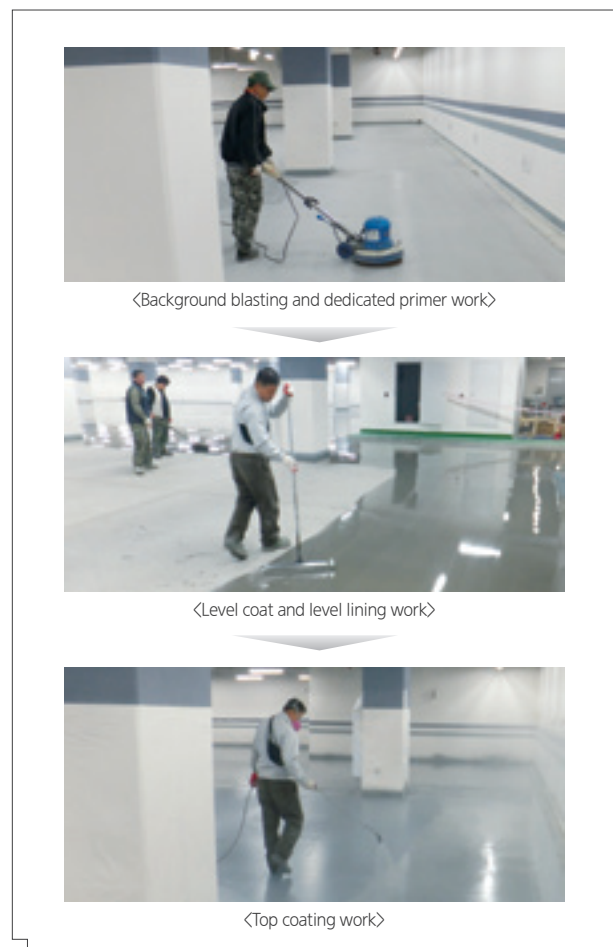
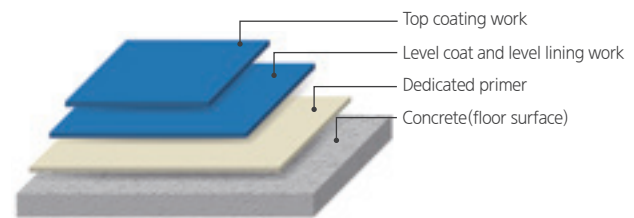
The 'Two-way Void Slab' is an engineering technique to reduce the dead weight of the floor slab of a building. It is an eco-friendly floor structure system to reduce the emissions of CO₂ by lowering the amount of concrete used by inserting a light-weight material into the concrete floor slab which does not perform structural functions. Turning a slab light in weight enhances the seismic performance and reduces the height, and reduces the height, while inducing no additional construction period and cost as a simple process. It can be easily applied to large and small-and-medium sites. (applied to Jinju LOTTE MALL)

| Eco-friendly Floor Covering

We developed the eco-friendly floor covering* which minimizes discharging of toxic materials when fire erupts, while improving the indoor air quality by minimizing hazardous chemicals including the TVOC(Total Volatile Organic Compounds) and HCHO (formaldehyde). For the related technology, LOTTE E&C holds two patents, one green technology certification and one new construction technology.

This technology, in particular, was designated as a new construction technology in 2015 for its recognized performance, while securing stable quality even being exposed to acid and water, etc. so that it can be applied to a space for food and cooking. Its application will be expanded to the floor for food sanitation where foreign materials are mostly applied.

Structure Chart for the Eco-friendly Floor Covering



A procedure for the eco-friendly floor finishing work

* New Construction Technology No.779 - Floor covering application technology for food preparation and storage facilities, using the Hardening & Permeation Primer(HPP) for floor hardening, and resin and powder-combined eco-friendly composite(certification date: December 7, 2015)

LOTTE WORLD TOWER



LOTTE E&C applies high-rise building construction technologies and competencies to design and in the construction of LOTTE WORLD TOWER, a would-be global landmark. It is to be born as a safe and eco-friendly high-rise building by securing safety of global standards and utilizing eco-friendly facilities.

- 96 Super High-rise Technologies
- 98 Safety First
- 100 Eco-friendly



1 Shielding the Inflow of Water from the Seokcheon Lake and Ground Water with through Cut-off Walls

•1.4km of slurry wall method has been applied to shield the inflow of water from the Seokcheon Lake and ground water from outside

2 Robust Foundation Technology

- Constructing the world's largest mat foundation with approximately 32,000m³ of concrete which has width and length of 72m and thickness of 6.5m(Equivalent to 80% of a soccer field in terms of area and 2 buildings in terms of height)
- 4,200 tons of concrete and 80,000 tons of high-strength concrete were used.
- Ensuring a shorter construction period and a higher quality through continued pumping for 32 hours by using ultra-low heat concrete for the large mat foundation

SUPER HIGH-RISE TECHNOLOGIES

3 High-Rise Structure Technology

- Applying the globally verified RC core wall, mega columns, steel outriggers and the belt truss structure to effectively support vertical and lateral load including wind and earthquakes

4 High-Performance Concrete Mixing Design and Construction Technique

- Securing special concrete mixing design and construction techniques befitting the purpose of structures e.g., fire-proof, high-pumping, mass, ultra-low heat & ultra-high strength, light-weight concrete

5 High-Precision Surveying and Verticality Control Technology

- Installing the navigation satellite receivers on precision slopes and the highest floor to ensure high-precision surveying with no margin of error
- Operating the Global Navigation Satellite System(GNSS) to rectify errors by receiving survey data from over four satellites

6 Tower Crane Dismantlement Technology

- Dismantlement of a tower crane in a general building without configuration change(elevation and plane) is carried out by unloading the elements dismantled by installing dismantling cranes on the top roof to the first floor
- LOTTE WORLD TOWER has a configurational change of becoming narrower toward the top, so dismantling cranes are installed on 123F and 79F so that dismantlement and unloading works are performed in two steps

7 High-Rise Vertical Pumping Technology

- Pumping high-strength concrete directly from 1F to as high as 515m shortening the pumping time and securing stability in quality

SAFETY FIRST

A building with its priorities focused on safety

| Control Tower for Safety Management

LOTTE Group launched the 'Safety Management Committee' to prevent and manage safety accidents, and operates the Safety Management Division under it. The committee consists of three parts: safety and inspection led by the Group's Safety Team, safety management under both LOTTE Corporation and LOTTE E&C and integrated promotion. Safety and inspection unit conducts prior facility safety check and shares the outcome with the safety management unit, while the promotion unit discloses the content to the media immediately to enhance transparency.

Moreover, the Safety Technology Advisory Group and Safety Monitoring Group are to be launched consisting of external specialists in architecture & construction, structure, machinery & electricity, safety and fire safety, taking part in safety check. We also plan to outsource safety check by sector-specific expert institutions in architecture, fire safety and electricity.

| Safety System

By installing Korea's first double-deck elevators, they are operated to be converted into emergency evacuation elevators upon the occurrence of emergencies.

Rescue stairs are designed with the width of 1.5m, which is 30cm wider than the legal standard of 1.2m so that two people can go down the stairs at the same time. As a result, we were able to set up a safety system enabling 15,000 people in the tower to be rescued within 63 minutes.

Evacuation hours and plans at the LOTTE WORLD TOWER



Korea's first-of-its-kind double-deck elevators

Type	Domestic standards	LOTTE WORLD TOWER
Refuge Area	One refuge area for every 30 floors	5 refuge areas (4 refuge areas in total for Burj Khalifa* in Dubai)
Evacuation elevators	Installation of evacuation elevators	19 evacuation elevators
Evacuation stairs	Minimum effective width: 1.2m	Effective width: 1.5m (additional 30cm secured)
Hours of fire resistance	For 3 hours, Korea's highest level: major structure sections (Columns and beams applied with HPC**, etc.)	
Fire extinguishing water capacity	60 minutes (for buildings of 50F and above)	60 minutes (possible to stretch up to 300 minutes by connecting fire extinguishing tanks)

* The highest building that has ever existed(163F, 828m)

** HPC: High Performance Concrete



8,967 people

Evacuation capacity(Stairs)



6,069 people

Evacuation capacity(Elevators)



62 minutes




Total evacuation time

The LOTTE WORLD TOWER is a smart building where its systems automatically adjust to different circumstances. It is constructed with cutting-edge technologies on robust structures and safety design. We apply safety conditions for the post-construction operating stage as well as the construction stage in the advanced level.

Fire Safety System

The LOTTE WORLD TOWER fully implements the safety requirements of the International Building Code(IBC) and the National Protection Association(NPA), while applying the U.S. fire safety standards upon design.

When a fire occurs, the building can bear up to the unprecedented 3 hours.

	24-hour Integrated Control Center	<ul style="list-style-type: none"> Securing stability in the operation of all systems including fire safety and security
	Fire detection and alignment with surveillance cameras	<ul style="list-style-type: none"> Installing fire detectors in major surveillance areas and thermal imaging facilities for detection
	Production of a manual for crisis and disaster response	<ul style="list-style-type: none"> Producing a manual on measures to evacuate upon such disasters as earthquakes, fire and terrorism, countermeasures upon emergencies and code of actions



Over **31,000**
installed fire detectors



Over **161,000**
sprinklers installed



Up to **60** minutes
of water supply secured for fire extinguishing

* The numbers of fire detectors and sprinklers are the aggregates of those at LOTTE WORLD TOWER and LOTTE WORLD MALL

24-hour integrated control center



ECO-FRIENDLY

Value creation through environmental-friendly design

| Eco-friendly Green Tower

The Emissions Trading Scheme has been in effect along with a greater interest in preventing global warming throughout the world, thus raising needs for energy saving more than ever. The LOTTE WORLD TOWER has proactively adopted eco-friendly technologies to reduce GHG by utilizing new and renewable energies.

Eco-friendly technologies and systems applied to the LOTTE WORLD TOWER



Wind Power Generation

Installing wind turbines on the top of the Shopping Mall



High-efficiency Appliances Including LED Lighting

Installing energy saving high-efficiency equipment and appliances



High-Efficiency Low-E Glass

Using double-layered high-thermal insulation glass injected with argon gas



Building-Integrated PVs(BIPVs)

Installing PV modules on 1F canopy



Energy Generated by the Difference in Water Temperature with Water from the Han River

Installing Korea's first and largest water temperature difference energy system



Cooling & Heating using Geothermal Energy

Cooling & heating system using the moderate underground temperature throughout the year

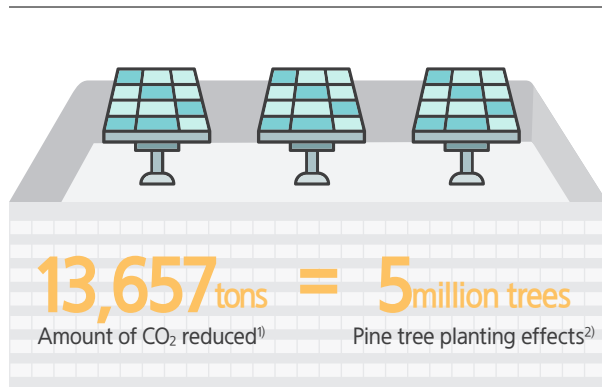


The LOTTE WORLD TOWER is a global landmark representing the eco-friendly mechanism for sustainable environmental protection. It is envisioned as an eco-friendly high-rise building utilizing the eco-friendly system and facilities where Mother Nature is the source of energies.

Utilizing New and Renewable Energies

LOTTE E&C installed and operate 108 sheets of solar panels on an area of 305m² for Avenuel Building as well as a total of 1,187 sheets of rooftop-type PV modules on the rooftop of the Avenuel Building and the Shopping Mall of the LOTTE WORLD MALL. We use the geothermal energy system of 2,920RT*, which is Korea's largest of its kind for buildings, 150~200m deep under the ground of the LOTTE WORLD MALL for cooling and heating. We plan to utilize 14.5% of the total energy amount with new and renewable energies by minimizing energy consumption and loss.

* RT: Refrigeration Ton



1) Amount reduced by May 2016 since the opening of the LOTTE WORLD MALL(October 2014)
 2) Based on the IPCC(Intergovernmental Panel on Climate Change, an international body under the UN to devise climate change measures) coefficients

Green Building Certification

The LOTTE WORLD TOWER and the LOTTE WORLD MALL were designed under a concept of 'an eco-friendly multi-functional complex that reduces energy'. They gained high recognition as green buildings in the adoption of new and renewable energy systems and cutting-edge technology application.

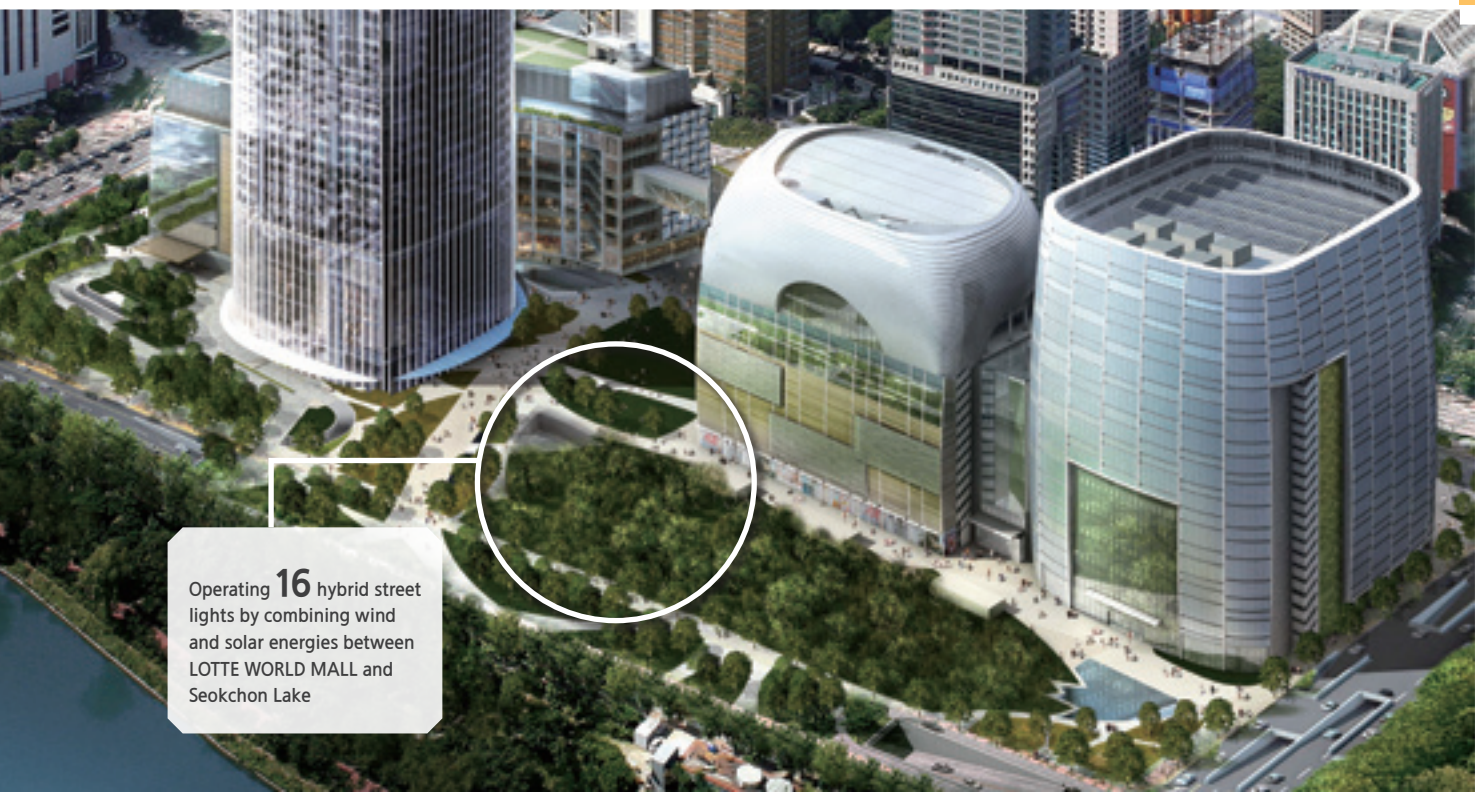
LOTTE WORLD MALL and LOTTE CONCERT HALL acquired the highest green building certification of Grade 1 in 2014 and 2015, respectively. We are working on acquiring the same grade and LEED Gold Grade of the U.S. for LOTTE WORLD TOWER by the end of 2016.

Status of green building certification

June 2014	November 2015	Scheduled for 2016-end
LOTTE WORLD MALL	LOTTE CONCERT HALL	LOTTE WORLD TOWER
<ul style="list-style-type: none"> Acquired the 'Grade of Highest Excellence' for a Green Building 	<ul style="list-style-type: none"> Acquired the 'Grade of Highest Excellence' for a Green Building 	<ul style="list-style-type: none"> The 'Grade of Highest Excellence' for a Green Building in progress Certification of the LEED* Gold in progress(Scheduled for March 2017)

* LEED: A program to certify sustainable buildings developed by the USGBC(U.S. Green Building Council(USGBC) in 1998 that quantifies buildings' eco-friendliness & energy efficiency

Green Axis formed in the Eco Park on top of the underground driveway of Jamsil-gil and in the World Park within the complex of the LOTTE WORLD TOWER



Operating **16** hybrid street lights by combining wind and solar energies between LOTTE WORLD MALL and Seokchon Lake

APPENDIX

103	Major Performance in Sustainable Management
106	Third-Party Assurance Report
108	GRI G4 Index
111	Memberships and Participating Associations / Awards Overseas Branch Offices and Subsidiaries

Major Performance in Sustainable Management

Economic Performance

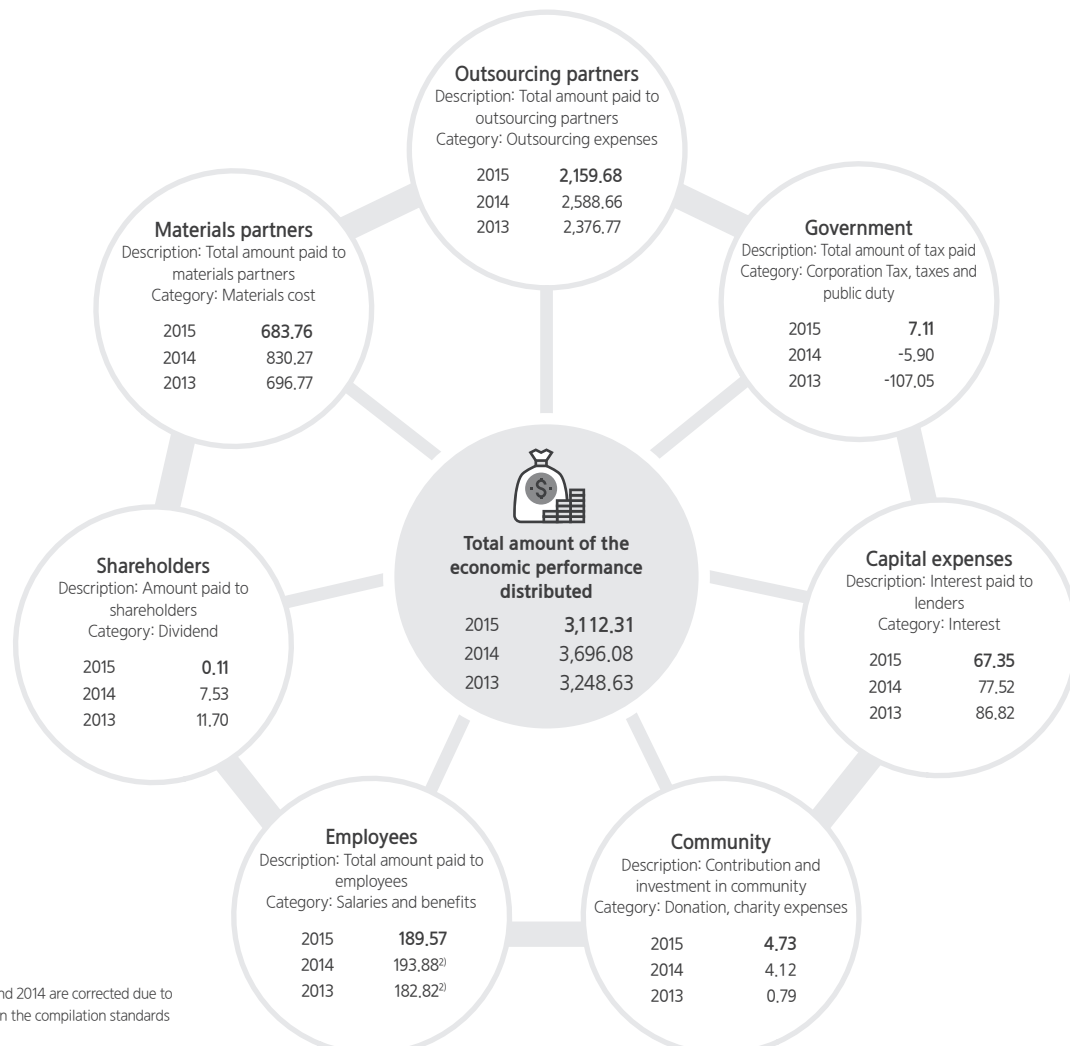
As a result of sustainable management activities, economic performance has improved compared to the past. Economic value generated through business activities is distributed to shareholders, investors, employees, government, partners and community to practice mutual growth with various stakeholders.

Economic				(Unit: USD Million)
Classification	2013	2014	2015	
Total orders	4,487.42	5,081.27	7,343.86	
- Domestic orders	4,220.58	4,784.47	6,778.14	
- Overseas orders	266.84	296.80	565.71	
Sales	3,932.58	4,224.90	3,648.43	
Gross profit	352.23	323.13	330.37	
Operating income	45.74	138.73	141.00	
Profit(loss) before income tax	-257.16	-51.02	15.58	
Net income(loss)	-150.11	-45.13	8.48	
Total assets	5,138.56	4,992.66	4,477.62	
Economic performance distributed	3,248.63 ¹⁾	3,696.08 ¹⁾	3,112.31	

1) Data of 2013 and 2014 are corrected due to modifications in the compilation standards

Distribution of Economic Performance

(Unit: USD Million)



2) Data of 2013 and 2014 are corrected due to modifications in the compilation standards

Social Performance

Economic values are shared with stakeholders such as employees, customers, partners and communities through business activities.

Classification	Category	Unit	2013	2014	2015
Current Status of Employees ¹⁾	Total number of employees	people	2,900	2,852	2,933
	Rate of regular employees	%	73	75.8	74
	Rate of contract-based employees	%	27	24.2	26
	Number of male employees	people	2,768	2,720	2,783
	Number of female employees	people	132	132	150
Female Leadership	Female employee ratio	%	4.6	4.6	5.1
	Female executive ratio ²⁾	%	0.6	0.8	0.9
Current Status of the Disabled	Total number of the disabled employed	people	36	49	58
Employment Status	No. of turnovers	people	118	99	126
	No. of local recruits	people	159	130	115
	No. of local talents recruited for early openings	people	17	25	39
Status for maternity & childcare leave	Return rate after child-care leave	%	75	75	71
	Rate of working for over 12 months after return from leave	%	89	67	50
Talent Development	Total number of trainees	people	2,900	2,852	2,933
	Total training expenses	USD Million	3.04	2.79 ³⁾	2.38
	Training hours per individual	hour	91	101	102
Status of ethical management	Number of employees participating in ethical management training	people	2,900	2,852	2,933
	Number of violations of ethical practice	case	15	15	19
Status of Social Contribution Activities	Expenses for social contribution	USD Million	0.79	4.12	4.73
	No. of employees participating in volunteering	people	1,897	1,609	1,473
	No. of volunteering teams for social contribution	Number	77	99	122
Status of Safety Management	Industrial accident rate	%	0.17	0.11	0.22
	Occurrence of severe disasters	case	6	4	3

1) Total employees(including regular and contract-based employees)

2) Ratio of female executives(manager-level and higher) to total number of employees

3) Data of 2014 are corrected due to compilation errors

Environmental Performance

In 2015, LOTTE E&C managed the amount of usage including materials, waste, energy and water to minimize the environmental impact resulting from business activities, while strengthening on-site safety activities.

Scope of data collection: 193 sites in 2013, 267 sites in 2014, 231 sites in 2015

Classification	Category	Unit	2013	2014	2015
Material Consumption	Ready-mix concrete	m ²	2,650,201	2,062,693	2,042,190
	Cement	Ton	79,341 ¹⁾	42,434 ¹⁾	40,073
	Aggregate	m ²	243,055	291,133	212,550
	Asphalt concrete	Ton	358,635	266,367	219,465
	Sand	m ²	101,942	73,274	47,180
	Rebar	Ton	222,115	211,691	319,809
	Plaster board	Board	712,527	1,462,275	1,876,416
Recycled Aggregate Consumption	Recycled aggregate consumption	m ²	17,117	21,740	10,354
Energy Consumption	Steam	TJ	-	-	9
	Electricity	TJ	1,272	1,015	645
	Others ²⁾	TJ	283	217	126
Waste Generation	Waste concrete	Ton	230,712	191,088	99,608
	Waste asphalt concrete	Ton	32,522	23,371	14,185
	Wood wastes	Ton	6,765	6,379	4,793
	Waste synthetic resins	Ton	7,133	8,623	6,526
	Waste soil and stones	Ton	65,518	31,268	121,018
	Construction sludge	Ton	1,276	1,332	2,301
	Roof tile wastes	Ton	-	-	-
	Tile / ceramic wastes	Ton	-	13	913
	Waste bricks	Ton	-	-	-
	Waste blocks	Ton	-	-	-
	Textile wastes	Ton	24	484	52
	Waste boards	Ton	1,860	1,634	1,663
	Waste glass	Ton	-	-	11
	Mixed construction waste	Ton	89,852	115,174	84,846
GHG Emissions	Scope 1(direct emissions)	tCO ₂ e	20,435	14,900	8,983
	Scope 2(indirect emissions)	tCO ₂ e	61,779	49,332	31,659
Water Consumption	Water and sewage consumption	Ton	1,374,452	4,778,929	1,189,878
	Underground water consumption	Ton	333,816	3,502,181	295,252

1) Data of 2014 are corrected due to compilation errors

2) Others: LNG, LPG, Gasoline, Diesel, Kerosene

Third Party's Assurance Statement

To the Readers of LOTTE E&C Sustainability Report 2016:

Foreword

Korea Management Association Registration Inc. (hereinafter "KMAR") has been requested by of LOTTE E&C to verify the contents of its Sustainability Report 2016 (hereinafter "the Report"). LOTTE E&C is responsible for the collection and presentation of information included in the Report. KMAR's responsibility is to carry out assurance engagement on specific data and information in the assurance scope specified below.

Scope and standard

LOTTE E&C describes its efforts and achievements of the sustainability management activities in the Report. KMAR performed a Type 2, moderate level and limited assurance using AA1000AS (2008) and ISAE3000 as assurance standards. KMAR's assurance team (hereinafter "the assurance team") evaluated the adherence to principles of Inclusivity, Materiality and Responsiveness, and the reliability of the selected GRI G4 indices as below, where professional judgment of the assurance team was exercised as materiality criteria.

- G4 Reporting Principles
- General Standard Disclosures
- Specific Standard Disclosures
- Generic DMA of each of following material indicators of aspects
 - Economic Performance: EC1, EC2
 - Indirect Economic Impacts: EC7, EC8
 - Materials: EN1, EN2
 - Energy: EN3, EN4, EN5, EN6, EN7
 - Water: EN8, EN9, EN10
 - Emissions: EN15, EN16, EN17, EN18, EN19
 - Effluents and Waste: EN23
 - Compliance: EN29
 - Employment: LA1, LA2, LA3
 - Labor/Management Relations: LA4
 - Occupational Health and Safety: LA5, LA6, LA7, LA8
 - Training and Education: LA9, LA10, LA11
 - Non-discrimination: HR3
 - Human Rights Grievance Mechanisms: HR12
 - Local Communities: SO1, SO2
 - Product and Service Labeling: PR3, PR4, PR5
 - Customer Privacy: PR8
- Construction and Real Estate Sector Disclosures: CRE1, CRE2, CRE3, CRE4, CRE6, CRE8

This Report excludes a data and information of joint corporate, contractor etc. which is outside of the organization, i.e. LOTTE E&C, among report boundaries.

Our approach

In order to verify the contents of the Report within an agreed scope of assurance in accordance with the assurance standards, the assurance team has carried out an assurance engagement as follows:

- Reviewed overall report
- Reviewed materiality test process and methodology
- Reviewed sustainability management strategies and targets
- Reviewed stakeholder engagement activities
- Interviewed people in charge of preparing the Report

Our conclusion

Based on the results we have obtained from material reviews and interviews, we had several discussions with LOTTE E&C on the revision of the Report. We reviewed the Report's final version in order to confirm that our recommendations for improvement and our revisions have been reflected. When reviewing the results of the assurance, the assurance team could not find any inappropriate contents in the Report to the compliance with the principles specified below. Nothing has come to our attention that causes us to believe that the data included in the verification scope are not appropriately presented.

| Inclusivity

Inclusivity is the participation of stakeholders in developing and achieving an accountable and strategic response to sustainability.

- LOTTE E&C is developing and maintaining stakeholder communication channels in various forms and levels in order to make a commitment to be responsible for the stakeholders. The assurance team could not find any critical stakeholder LOTTE E&C left out during this procedure.

| Materiality

Materiality is determining the relevance and significance of an issue to an organization and its stakeholders. A material issue is an issue that will influence the decisions, actions, and performance of an organization or its stakeholders.

- LOTTE E&C is determining the materiality of issues found out through stakeholder communication channels through its own materiality evaluation process, and the assurance team could not find any critical issues left out in this process.

| Responsiveness

Responsiveness is an organization's response to stakeholder issues that affect its sustainability management performance and is realized through decisions, actions, and performance, as well as communication with stakeholders.

- The assurance team could not find any evidence that LOTTE E&C's counter measures to critical stakeholder issues were inappropriately recorded in the Report.

We could not find any evidence the Report was not prepared in accordance with the 'Core Option' of GRI G4.

Recommendation for improvement

We hope the Report is actively used as a communication tool with stakeholders and we recommend the following for improvements.

■ **Develop a preparation and utilization plan based on stakeholder prioritization:** It is desirable that LOTTE E&C operates a complete charge department for sustainability management and be active in utilizing the sustainability report for communication with its stakeholders. We recommend that LOTTE E&C prioritize stakeholders and develop a preparation and utilization plan - which is based on the stakeholder prioritization - to refrain from setting the preparation and utilization of the report for limited stakeholders.

■ **Managerial improvement of GRI requirements:** We recommend that LOTTE E&C manage every measurement method of performance indicators - being required by GRI - in standardized way and integrate the method into the performance management process to more effectively manage and improve the performance.

Our independence

With the exception of providing third party assurance services, KMAR is not involved in any other LOTTE E&C's business operations that are aimed at making profit in order to avoid any conflicts of interest and to maintain independence.



August, 17th, 2016
CEO Ki Ho Park

K. H. Park

GRI G4 Index

GENERAL STANDARD DISCLOSURES

General Standard Disclosure		Page	Coverage
Strategy and Analysis			
G4-1	Statement from the most senior decision-maker	2, 3	✓
G4-2	Provides a description of Key impacts, risks, and opportunities	50~53	✓
Organizational Profile			
G4-3	Report the name of the organization	4	✓
G4-4	Report the primary brands, products, and services	6~44	✓
G4-5	Report the location of the organization's headquarters	4	✓
G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	38, 39	✓
G4-7	Report the nature of ownership and legal form	4, 88, 89	✓
G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries)	4, 38~44	✓
G4-9	Scale of the organization	4, 103, 104	✓
G4-10	Total workforce	104	✓
G4-11	Report the percentage of total employees covered by collective bargaining agreements	None	✓
G4-12	Describe the organization's supply chain	83	✓
G4-13	Any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	About this report	✓
Organizational Profile: Commitments to External Initiative			
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization	90	✓
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	68	✓
G4-16	List memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization	111	✓
Identified Material Aspects and Boundaries			
G4-17	List all entities included in the organization's consolidated financial statements or equivalent documents	About this report	✓
G4-18	The process for defining the report content and the Aspect Boundaries	48, 49	✓
G4-19	List all the material Aspects identified in the process for defining report content	48, 49	✓
G4-20	For each material Aspect, report the Aspect Boundary within the organization	48, 49	✓
G4-21	For each material Aspect, report the Aspect Boundary outside the organization	48, 49	✓
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements	103~105	✓
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries	None	✓
Stakeholder Engagement			
G4-24	Provide a list of stakeholder groups engaged by the organization	48, 49	✓
G4-25	Report the basis for identification and selection of stakeholders with whom to engage	48, 49	✓
G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process	48, 49	✓
G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns	48, 49	✓
Report Profile			
G4-28	Reporting period (such as fiscal or calendar year) for information provided	About this report	✓
G4-29	Date of most recent previous report (if any)	About this report	✓
G4-30	Reporting cycle (such as annual, biennial)	About this report	✓
G4-31	Provide the contact point for questions regarding the report or its contents	112	✓
Report Profile: GRI Content Index			
G4-32	Report the 'in accordance' option the organization has chosen	About this report 108~110	✓
Report Profile: Assurance			
G4-33	Report the organization's policy and current practice with regard to seeking external assurance for the report	106, 107	✓
Governance			
G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts	88, 89	✓
Ethics and Integrity			
G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	4, 72	✓

SPECIFIC STANDARD DISCLOSURES

Category: Economic

DMA and Indicators		Page	Omissions	Coverage
Economic Performance	Generic DMA	50, 51		✓
	G4-EC1 Direct economic value generated and distributed	50, 51, 103		✓
	G4-EC2 Financial implications and other risks and opportunities for the organization's activities due to climate change	56, 57		✓
Indirect Economic Impacts	Generic DMA	60, 61		✓
	G4-EC7 Development and impact of infrastructure investments and services supported	60, 61, 84-86		✓
	G4-EC8 Significant indirect economic impacts, including the extent of impacts	60, 61, 85, 104		✓

Category: Environmental

DMA and Indicators		Page	Omissions	Coverage
Materials	G4-EN1 Materials used by weight or volume	105		✓
	G4-EN2 Percentage of materials used that are recycled input materials			✓
Energy	Generic DMA	56, 57		✓
	G4-EN3 Energy consumption within the organization	105		✓
	G4-EN4 Energy consumption outside of the organization	Not subject to management		✓
	G4-EN5 Energy intensity	Building energy reported in energy intensity		✓
	G4-EN6 Reduction of energy consumption	57		✓
	G4-EN7 Reductions in energy requirements of products and services	57		✓
	G4-CRE1 Building energy intensity	25,443TJ / person		✓
	Water	Generic DMA	65	
G4-EN8 Total water withdrawal by source		105		✓
G4-EN9 Water sources significantly affected by withdrawal of water		No water sources are significantly affected		✓
G4-EN10 Percentage and total volume of water recycled and reused		No amount used		✓
G4-CRE2 Building water intensity*		28,521m ³ / person		✓
Emissions		Generic DMA	56, 57	
	G4-EN15 Direct greenhouse gas(GHG) emissions(Scope 1)	105		✓
	G4-EN16 Energy indirect greenhouse gas(GHG) emissions(Scope 2)			✓
	G4-EN17 Other indirect greenhouse gas(GHG) emissions(Scope 3)	Not managed separately		✓
	G4-EN18 Greenhouse gas(GHG) emissions intensity	Building energy reported in energy intensity		✓
	G4-EN19 Reduction of greenhouse gas(GHG) emissions	57		✓
	G4-CRE3 Greenhouse gas emissions intensity from buildings	1,243 tCO ₂ e / person		✓
	G4-CRE4 Greenhouse gas emissions intensity from new construction and redevelopment activity	Not subject to management		✓
	Effluents and Waste	Generic DMA	65	
G4-EN23 Total weight of waste by type and disposal method		105		✓
Compliance	Generic DMA	64		✓
	G4-EN29 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	64		✓

* Excluding the data on the water usage at Saerom Building and Construction Management(CM) Division

Category: Social

Sub-Category: Labor Practice and Decent Work			Page	Omissions	Coverage
Employment	Generic DMA		68		✓
	G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender, and region	104		✓
	G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	71		✓
	G4-LA3	Return to work and retention rates after parental leave, by gender	71, 104		✓
Labor / Management Relations	Generic DMA		58, 59		✓
	G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	58		✓
Occupational Health and Safety	Generic DMA		54, 55		✓
	G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	67		✓
	G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	67		✓
	G4-CRE6	Percentage of the organization operating in verified compliance with an internationally recognized health and safety management system	66		✓
	G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	54, 55, 66, 67		✓
	G4-LA8	Health and safety topics covered in formal agreements with trade unions	67		✓
Training and Education	Generic DMA		69, 70		✓
	G4-LA9	Average hours of training per year per employee by gender, and by employee category	70		✓
	G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	71		✓
	G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	97.0%		✓

Sub-Category: Human Rights			Page	Omissions	Coverage
Non-discrimination	Generic DMA		68		✓
	G4-HR3	Total number of incidents of discrimination and corrective actions taken	No incidents of discrimination occurred		✓
Human Rights Grievance Mechanisms	Generic DMA		58, 59		✓
	G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	59		✓

Sub-Category: Society			Page	Omissions	Coverage
Local Communities	Generic DMA		60, 61		✓
	G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	60, 61		✓
	G4-SO2	Operations with significant actual or potential negative impacts on local communities	63~65		✓

Sub-Category: Product Responsibility			Page	Omissions	Coverage
Product and Service Labeling	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	Not applicable		✓
	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	Not applicable		✓
	G4-PR5	Results of surveys measuring customer satisfaction	78		✓
	G4-CRE8	Type and number of sustainability certification, rating and labeling schemes for new construction, management, occupation and redevelopment	65		✓
Customer Privacy	G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	78		✓

Memberships and Participating Associations / Awards

Associations and Memberships

Association

Construction Association of Korea	Maeil Business Newspaper S.E.L Club	Korea Housing Association
Architectural Institute of Korea	The Korea Construction New- Technology Association	Korean Geotechnical Society
The Korea Chamber of Commerce & industry	The Korea Institute of Building Construction	Korea Railway Construction Engineering Association
Society of Air-Conditioning and Refrigerating Engineers of Korea	Korean National Committee on Irrigation and Drainage	The Korea Railway Association
The Korean Institute of Electrical Engineers	Korea Road Association	Korea Concrete Institute
Korean Society of Civil Engineers	Korea Fire Safety Association	Korean Tunneling and Underground Space Association
The Federation of Korean Industries	Korea Electrical Contractors Association	International Contractors Association of Korea
Construction Safety Manager Committee	Korea Information Communication Contractors Association	American Concrete Institute(ACI)

2015 Awards & Prizes

Date	Award	Organization
Mar. 25	Commendation on the Day of Construction Technologies	Minister of Land, Infrastructure and Transport
Apr. 23	Commendation for the merit for Yen Vien-Lao Cai Railway Upgrading Project	Ministry of Transport, Vietnam
Jun. 25	Commendation on the Construction Day	Prime Minister of the Republic of Korea
Jul. 9	Received the grand prize from Korea Service Awards(Apartment category)	Korean Standards Association
Nov. 18	Bronze Prize for the Excellent Circle at the National Quality Management Convention	President of the Republic of Korea
Nov. 30	Commendation for the Person of Merit in Volunteering	Mayor of Seoul
Dec. 1	Commendation for the Merit in Contributing to Improvement of the Residential Environment for Low-income Households	Head of Geumcheon-gu
Dec. 29	'Silver Tower' Industrial Award on the Day of Housing Construction	President of the Republic of Korea

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Ethical Management	Ethical Management Department	Min Kyu Lee
Environmental & Safety Management	Safety and Health Management Team	Tae Wan Kim
	Technology Research Institute	Chung Hwan Han
	Design Research Institute, Housing Division	Jin Woo Kim
Customer Value Management	CS Department, Housing Division	Joon Young Lee
	Construction Management Department of Housing, Housing Division	Jeong Ho Lee
	Marketing Department, Housing Division	Young Jin Moon
Win-Win Management	Procurement Planning Team, Sourcing and Procurement Division	Yu Ra Choi
	Competitiveness and Innovation Team, Strategic Planning Department	Hee Sung Park
Social Sharing Management	Competitiveness and Innovation Team, Strategic Planning Department	Seong Hun Ku
Talent Management	HR Team, HR Department	Jin Hyung Lee
	Welfare Team, HR Department	Je Hoon Yoo
Housing	Housing Planning Team, Housing Division	Bo Yeon Kim
Architecture	Architectural Planning Team, Architecture Division	Se Jong Park
Civil Works	Civil Planning Team, Civil Engineering Division	Hwan Chel Kim
Plants	Plant Planning Team, Plant Division	Wan Sik Lee
Overseas Business	Overseas Planning Team, Overseas Business Division	Su Ki Im
LOTTE WORLD TOWER	High-Rise Buildings Department	In Seok Seo
		Tae Hoon Kim
English revision by	Overseas Business Division	Keon Hyung Joo
		Taek Jin Chang

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