

# Connecting People and Space with **LX**

2018 LX Sustainability Report



Korea Land and  
Geospatial InformatiX Corporation



# ABOUT THIS REPORT

## Purpose of Publication

Since the first sustainability report edition in 2008, Korea Land and Geospatial InformatiX Corporation(hereafter LX) has continued to disclose its sustainability management strategies and performance. The annual publication of this sustainability report helps LX to enhance the engagement and interests of its stakeholders, and their trust and support will underpin our growth into an organization that creates new values.This report is also available on LX's website (http://www.lx.or.kr/eng).

## Features of the Report

This report is prepared in accordance with the Global Reporting Initiative's (GRI) standards which have become mandatory requirements since 2018. By advancing the existing materiality assessment system, it features secured objectiveness as it quantitatively analyzes the interests of key stakeholders by different topics and then reflects them in the selection of core issues.

## Reporting and Verification Standards

This report satisfies international sustainable management standards including the Core option of the Global Reporting Initiative's (GRI) Standards, a global standard for sustainability reporting, UNGC, and ISO26000, among others. In addition, the company has obtained the verification for its financial and non-financial data from a specialized verification body, the Korean Foundation for Quality. The Third-party's assurance statement can be found in p 64-65.

## Reporting Scope and Period

The report covers the headquarters, LX Education Institute, Spatial Information Research Institute, 12 regional headquarters, and 169 district offices. It records LX's sustainability performances from January 1 to December 31, 2017, with additional activities and performances from the first half of 2018 for some issues. In particular, quantitative achievements have been released for the past three years from 2015 to 2017 to enable year-by-year trend analysis.



Cover Page

'Connecting People and Space with LX' embodies LX's commitment to turn our lives more enriching and happier through the most affectionate land information technologies connecting people and space. It was designed with a motif of connecting people and space by depicting the back image of a child running towards the future.

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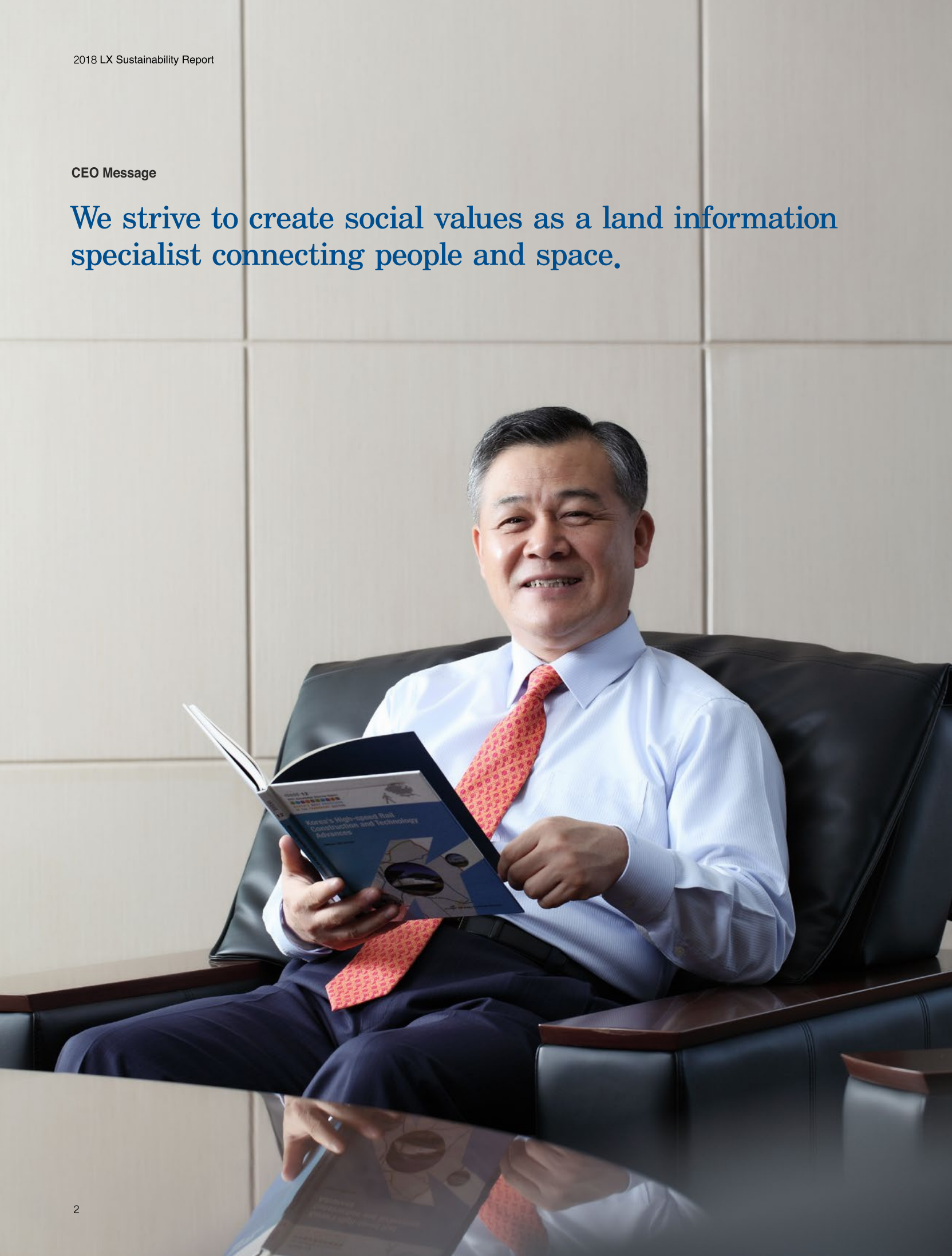
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CEO Message

We strive to create social values as a land information specialist connecting people and space.



Dear Stakeholders who love and care for Korea Land and Geospatial InformatiX Corporation(hereafter LX)

In an adverse business environment, such as private transfer of cadastral surveying service, we have steered our way through selection and concentration, and change and progress, and successfully advanced into the global market to promote mutual growth. These efforts have led to the achievement of 'A' rating in the '2017 Public Institution Performance Evaluation,' the Presidential and Ministerial Citation in the '2018 Mutual Growth Sector,' and the Public Industry Award from the '2018 Korea CEO Hall of Fame.' In 2018, LX is now taking a new step forward in line with the 'Vision 2030': 'Land Information Platform Leading the Smart Era.' In order for LX to lead the smart society, to promote sustainable growth, and to realize social value, I would like to make the following promises.

**First, We will transform ourselves into a people-oriented land information platform.**

As part of the effort to improve the quality of people's life, LX is hard at work managing the quality of land information and enhancing service systems through standardization, specialization, and simplification of cadastral and spatial information business. We are taking the lead in developing future contents utilizing key infrastructure of the 4th industrial revolution: operation of the big data center for spatial information service; development of 'LX\_Geo Go', a customized land information service based on AI; and construction of land information monitoring platform using drones. Furthermore, we are striving to build capacity for sustainable growth by making R&D investments and developing global human resources that will lead the fourth industrial revolution.

**Second, We will establish ourselves as a reliable land information specialist based on transparency in ethics management.**

LX regards ethics and integrity management as the priority of our time to be pursued by public institutions and makes a great effort to fight corruption. A corruption reporting center was established to enhance communication and transparency, and 'Integrity Nuri Culture Festival' is held jointly with public organizations in Jeonbuk Innovation City to promote the culture of integrity. Also, we joined the 'Fair Player Club' which supports corporate social responsibility, such as human rights and anti-corruption, to create a transparent and clean management environment. As a result, we have gained attention as an exemplary ethics management institution by achieving the waiver in the 2017 anti-corruption policy evaluation, the second grade in public institution integrity, and 'A' grade in the evaluation of internal audit in 2017.

**Third, We will build an ecosystem for mutual growth at home and abroad so that we can achieve co-existence and co-prosperity with various business entities.**

LX has established a 'Place to Realize Social Value' to fulfill its social responsibilities, such as creating quality jobs and building an ecosystem for mutual growth. The 'LX Geo-Dream Center' which was open in Seoul will be expanded to Sejong City and Jeonju City to contribute to creating an ecosystem for innovative startups. Besides, we will expand the 'Mutual Hope Fund' to KRW 20 billion by 2020 to provide low-interest loans to SMEs and spatial information companies while strengthening support for local talent. LX has been accelerating its entry into the global market since 2006 by exporting advanced cadastral systems to developing countries. In recent years, we have successfully completed the 'Location Accuracy Improvement Project for Uruguay Cadastral Map' by utilizing a Korean satellite Arirang-3 and drone surveying technology. While supporting developing countries that need to create efficient land information systems, we are working hard to establish a bridgehead for domestic private companies to enter overseas markets. 69 private companies of LX Consortium have recorded 20.8 billion won in sales in foreign markets by 2017.

LX has been able to achieve high growth by doing the basics well. In the era of the 4th industrial revolution, we will continue to discover new growth engines while providing people-oriented land information services and also take up new challenges to become a representative public institution that fulfills its social responsibilities. We will make ceaseless efforts to establish ourselves as the best land information agency trusted by the people based on sustainable development.

Thank you.

February 2019  
CEO, Korea Land and Geospatial InformatiX Corporation

Choi, Chang-hak



# Company Profile

LX is committed to building a national spatial information system and promoting the efficient use of land. Having launched as Korea Cadastral Survey Corporation in 1977, LX transferred its headquarter to Jeonbuk Innovation City in 2013. With the spread of cutting-edge information technology, we changed the company name to 'Korea Land and Geospatial InformatiX Corporation' in 2015 to meet the needs of the times, i.e., enhancement of public benefits, and are making utmost efforts to become the best land information agency trusted by the people.



Name	Korea Land and Geospatial InformatiX Corporation
Date of Establishment	July 1, 1977 (Company name was changed to Korea Land and Geospatial InformatiX Corporation in June 4, 2015)
Basis of Establishment	Article 12 of the Framework Act on National Spatial Data Infrastructure
CEO	Choi, Chang-hak
No. of Employees*	4,344 persons
Location of HQ	120, Giji-ro (Jung-dong), Deokjin-gu, Jeonju Jeollabuk-do
Key Places of Business	Headquarter, Land and Geospatial Informatics Education Institute, Spatial Information Research Institute, 12 regional headquarters, 169 district offices
Credit Rating*	AAO (NICE Information Service Co., Ltd.)

\* As of December 31, 2017

## Areas of Business

LX engages in five key businesses, i.e., national spatial information, cadastral survey, cadastral resurvey, overseas business, and research and education.

### National Spatial Information

LX promotes the spatial information industry and provides spatial information services to the public through the establishment of national spatial information system and convergence of various spatial information.

### Cadastral Survey

LX registers land information on the public cadastral book and offers quick and accurate cadastral surveying services to protect the property rights of the people.

### Cadastral Resurvey

LX conducts cadastral resurvey and conversion into the world geodetic reference system for the completion of Korean cadastral map. We plan to build 'smart land' by 2030.

### Overseas Business

LX spreads the cadastral and spatial information technologies of Korea to developing countries and supports private enterprises which lack experience and achievements in overseas businesses to advance into the global market.

### Research and Education

LX studies national spatial policies and future convergence technologies and contributes to strengthening industrial capacity in the field of land information through cutting-edge technology education.

## Vision and Strategies

With the advent of the 4th industrial revolution, LX has established and promoted mid-to long-term business strategies to respond to the rapidly changing business environment proactively. While improving the public's satisfaction with our cadastral and spatial information business, we strive to discover new growth engines that will lead to the 4th industrial revolution. These business directions and opinions of various stakeholders are reflected in 'LX Vision 2030,' which was announced in 2018 to present a blueprint of 'A Land Information Platform to Lead A Smart Society.'

### LX Business Strategy System



## Key Achievements

LX implements various innovation strategies for sustainable growth, such as creating new growth engines, securing core technologies, and promoting global marketing activities. As of 2017, sales are KRW 549.1 billion and 10.27 million cases for the use of national spatial information portal. We promote balanced growth while being acknowledged for our business endeavors in various fields including technological innovation, customer satisfaction, mutual growth, and integrity and ethics.

2017 Key Financial Indicators for LX		Unit	2015	2016	2017
Sales		KRW 1 billion	472.9	507.8	549.1
Net income for the year		KRW 1 billion	31.4	148.2	53.8
External Evaluation	Customer satisfaction	Rating	A	B	B
	Overall integrity	Rating	2	2	2
	Anti-corruption policy evaluation	Rating	1	1	Evaluation Waiver
Social Respons-ibilities	Evaluation of mutual growth	Rating	Good	Good	Excellent
	SME support fund	KRW 1 billion (on an accrual basis)	1	2	6
	Evaluation of the National Human Resources Development Consortium	Rating	A	A	B
Governmental management evaluation		Rating	A	B	A



# LX Social Value

## LX Vision on Social Values

LX strives to realize social values by focusing on cadastral surveying, cadastral resurveying and spatial information business as main business areas. We also devised the LX vision on social values and established a strategy system in order to contribute to the happiness of the public through innovative growth and non-discriminatory land information service.

LX Vision 2030	A Land Information Platform to Lead a Smart Society			
LX Strategy Directions 2030	Leading Innovative Growth in Land Information	Improving Quality and Service	Taking Actions for Social Contribution	Fostering Professional Talents
Vision on Social Values	Innovative Growth, Information Welfare and a World Where People are Happy Achieved through Land Information			
Strategy Directions	A Framework for Innovative Growth Created through Mutual Cooperation	Implementing Information Welfare for All through Land Information	Creating Decent Jobs for People	Establishing the Basis for Realizing Social Values through Communication with People
UN SDGs	9 11	9 11	4 16	8 10 16
Strategy Tasks	<ul style="list-style-type: none"><li>Initiating innovative growth through space information</li><li>Expanding new opportunities to facilitate the economy through smart innovation in community</li><li>Supporting innovative growth by intensifying R&amp;D in land information</li></ul>	<ul style="list-style-type: none"><li>Providing space information service aligned with people's livelihood</li><li>Providing people-oriented land information service</li><li>Resolving blind spots in land information</li></ul>	<ul style="list-style-type: none"><li>Creating private sector jobs through innovation</li><li>Intensifying fairness in recruitment and personnel management</li><li>Creating a non-discriminatory labor environment</li></ul>	<ul style="list-style-type: none"><li>Setting up a foundation for participatory innovation through communication with people</li><li>Envisioning a 'clean LX' through ethics management</li><li>Intensifying competencies for creating social values through organizational communication</li></ul>

## Social Value Roadmap

LX Vision on Social Values		Innovative Growth, Information Welfare and A World Where People Are Happy Achieved Through Land Information				
Strategy Directions		A Framework for Innovative Growth Created Through Mutual Cooperation	Implementing Information Welfare for All Through Land Information	Creating More Decent Jobs for People	Establishing the Basis for Realizing Social Values Through Communication with People	
		<div>Value-Project: Creating Performance in Social Values</div> <div>Core-Project: Intensifying Competencies in Social Values</div> <div>Brand-Project: Branding Social Values</div>				<div>Performance Curve</div> <div>Achieving the Vision on Social Values</div>
		<div>A framework for innovative growth created through mutual cooperation</div> <div>Implementing information welfare for all through land information</div> <div>Creating more decent jobs for people</div> <div>Creating a culture of social values through communication with people</div>	<div>Initiating branding of social values for mutual growth in the current strength of LX</div> <div>Establishing the concepts for land information welfare and innovative growth and people-oriented service</div> <div>Completing the conversion of non-regular workers into regular ones and extending LX's exclusive support to create private sector jobs</div> <div>Diversifying and branding communication channels with people</div>	<div>Exploring and implementing partnership projects in Jeonbuk based on Jeonju Smart City</div> <div>Exploring people-oriented forward-looking and information</div> <div>Intensifying competencies for private sector jobs through innovative measures</div> <div>Aligning an innovative system for operations based on communication with people</div>	<div>Fostering private companies through innovative growth and developing a regional economy</div> <div>Maximizing the utilization rate and convenience in people-oriented land information</div> <div>Achieving targets for creating more decent jobs</div> <div>Strengthening public features of LX in major business areas through communication with people</div>	<div>Initiating Social value branding of LX based on mutual cooperation which is the biggest strength of LX from 2018 to 2020</div> <div>Ensuring innovative growth of community and creating values after intensifying competencies for information welfare after 2021</div>
		2018	2018~2020	2021~2023	2024~2026	2027~2030

## Stakeholder Engagement to Realize LX Social Values



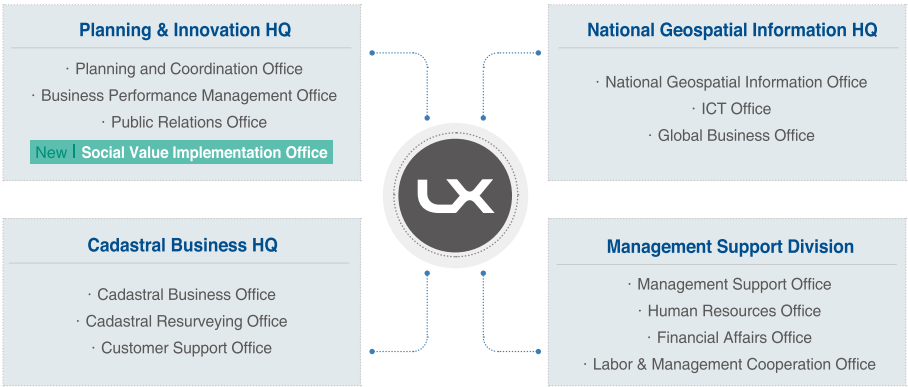
## UN SDGs



## Launching an Exclusive Unit for Social Values

LX newly established the Social Value Implementation Office under the Planning & Innovation HQ in order to achieve innovation as a public institution and create social values. We also operate LX Public Innovation Group besides internal business units. The headquarters has formed the People's Participatory Group, and the HQs launched the Citizen Participatory Group to listen to diverse needs of people.

## Launch of Social Value Implementation Office



## Responses to Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) adopted by the UN demand governments, companies and civic societies in all areas to eradicate all types of poverty and ease inequality from 2016 to 2030. SDGs consisting of 17 goals and 169 targets encompass diverse topics throughout the economy, society, and environment for sustainable development of all countries around the world. As a public institution playing public roles as well as serving as an accountable member of the international community, LX contributes to achieving SDGs by leveraging competencies in cadastral surveying, which is the nature of what we do as a public institution. We also devised measures to contribute to attaining SDGs by creating social values as we align our vision on social values and responses to SDGs.

UN SDGs	LX's Responses	Related Content
4 QUALITY EDUCATION	We provide training programs for diverse types of audience including youths, job seekers and the general public by utilizing cadastral surveying and expertise in the field of spatial information.	p 47-48
8 DECENT WORK AND ECONOMIC GROWTH	We contribute to the creation of high-quality jobs by expanding the Spatial Information Academy, facilitating youth employment, improving employment conditions for non-regular workers and creating private sector jobs.	p 44-45
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	We support efficient and stable operation and new development of social infrastructure by sophisticating the management system for spatial information on roads and railways, etc.	p 14-17
10 REDUCED INEQUALITIES	We provide free-of-charge surveying services for the socially vulnerable. We also provide spatial information services for people so that anyone could access highly reliable spatial information data.	p 46-47
11 SUSTAINABLE CITIES AND COMMUNITIES	We contribute to the formation of sustainable cities that are inclusive, safe and resilient by repairing empty houses, initiating urban regeneration and supporting the current status surveys on shared assets by expanding the integrated surveys of land information.	p 14-17
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	We raise institutional transparency through ethics management engaging all employees, and establish and operate a system for human rights management to prevent human rights infringement of stakeholders.	p 24-27



# Stakeholder Engagement




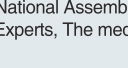
## Definition of Stakeholders

LX has redefined the types of stakeholders for more efficient communication with them. Types of stakeholders were classified into relational type, win-win type, cooperative type, and participatory type according to the characteristics of communication, and accordingly activity directions and communication strategies were derived. As communication efforts for every kind of stakeholders have been systematized, the satisfaction of stakeholders is expected to increase through more effective responses.

## Stakeholder Communication Channels

Communication with stakeholders is a crucial factor in promoting sustainability management. LX has established communication channels tailored to redefined stakeholder groups: relational-type, win-win-type, cooperative-type and participatory-type to boost continuous exchanges and interactive communication. We will continue to listen to the voices of various stakeholders and share information on our business activities to promote sustainability management based on the trust of stakeholders.

### Stakeholder communication channels

Classification	Communication Strategies	Key Communication and Feedback Channels		Monitoring and Evaluation	Feedback
		Online	Offline		
 Relational Public	<ul style="list-style-type: none"><li>· Building an organic relationship based on a wide consensus</li></ul>	<ul style="list-style-type: none"><li>· Land internet broad-casting system (LIBS)</li><li>· Official website, public campaigns, webzines, social network services</li></ul>	<ul style="list-style-type: none"><li>· Concerts for local residents</li><li>· JOB mentoring</li></ul>	<ul style="list-style-type: none"><li>· Public perception</li><li>· LX awareness</li><li>· Media monitoring</li></ul>	<ul style="list-style-type: none"><li>· Giving feedback on communication results such as public perception, improving weak areas and expanding strong areas</li><li>- Implementing systems according to the results of yearly/quarterly/monthly monitoring and evaluation of each responsible department</li></ul>
 Win-Win Customers, SMEs	<ul style="list-style-type: none"><li>· Leading win-win communication to promote mutual benefits</li></ul>	<ul style="list-style-type: none"><li>· Immediate processing center</li><li>· Official website, public campaigns, webzines, social network services</li></ul>	<ul style="list-style-type: none"><li>· Windows for civil petitions</li><li>· Workshops for mutual growth</li></ul>	<ul style="list-style-type: none"><li>· Customer satisfaction</li><li>· Service quality index</li><li>· Mutual growth evaluation</li></ul>	
 Cooperative Government, National Assembly, Experts, The media	<ul style="list-style-type: none"><li>· Strengthening cooperative communication focusing on policy agenda</li></ul>	<ul style="list-style-type: none"><li>· Land information newsletter</li><li>· Official website, public campaigns, webzines, social network services</li></ul>	<ul style="list-style-type: none"><li>· Channels for deliberation and collaboration</li><li>· R&amp;D agreements, meetings</li></ul>	<ul style="list-style-type: none"><li>· Achievement of strategic tasks</li><li>· Management assessment-audit</li><li>· Policy monitoring</li></ul>	
 Participatory Employees, Unions	<ul style="list-style-type: none"><li>· Eliminating communication barriers</li></ul>	<ul style="list-style-type: none"><li>· Intranet</li><li>· Chin Chin Land, CoP</li></ul>	<ul style="list-style-type: none"><li>· Channels for grievance resolution</li><li>· New communication programs</li></ul>	<ul style="list-style-type: none"><li>· Vision sharing</li><li>· Communication index</li><li>· Harmonious labor-management index</li></ul>	

## Stakeholder Interview



Lee Song-hyun  
College student on long-term placement

### What efforts do you think LX can make to promote youth employment and job creation?

The IPP long-term field placement I participate in is a system in which colleges and companies work together to allow the 3rd and 4th-grade students to have their major-related work experience. We learned how to use software, such as CAD, MOS, and Arc GIS, in the spatial information business department of Gyeonggi Regional Headquarters. Through the long-term placement, we were able to improve not only practical skills but also organizational adaptability. These days, youth unemployment is widespread and worsening. For the first time among public institutions, LX has introduced a wide range of employment programs, such as the application of National Competency Standards and blind recruitment, and encouraged employment at spatial information-related companies through Spatial Information Academy. I hope that LX will continue to improve business capabilities of young people and expand programs to create jobs for youth.



Kim Hyeon-jin  
Employee at LX Gimpo District Office

### What do you think LX needs to consider in making an employee-friendly company?

I decided to take parental leave to build up some memories with my child. I was first worried about what my colleagues would think about a male worker taking childcare leave but soon was relieved to get encouragement from them. During my childcare leave, I learned how to do housework and developed a hobby which I had been interested in. The memories I had with my child are still alive in my heart, and I think this was all possible due to LX's family-friendly organizational culture. Recently, there has been a growing interest in achieving work-life balance, and to that end, more company-wide efforts need to be made. If employees are allowed to spend more time with their families through the prohibition of overtime work and promotion of flexible work arrangement, they will be able to show more commitment to their work.



Kim Hyeon-Ah  
CSR collaboration manager, Korea National Ballet

### At a time when the demand to establish a sustainable social contribution system increases, what are the directions and wishes of LX down the road?

LX and the Korea National Ballet made a business agreement to provide residents in underprivileged areas with opportunities to watch ballet performances every year and run a ballet class for teenagers. Since last year, Kang Soo-jin, art director of the Korea National Ballet, has made a personal visit to students in the ballet class to encourage them to achieve their dreams. Through these activities, we are providing those in local areas with an opportunity to enjoy the benefits of art education and performance which are usually available in Seoul. I believe that collaborative social contribution with other fields will serve as an attractive opportunity for LX to improve its corporate value to the public. I hope that LX will continue to promote the CSR activities of its district offices across the nation through collaboration with specialized agencies and NPOs in various fields, thereby revitalizing the depressed areas.



Lee Moon-seok  
CEO of Hojung Solution,partner of LX

### What do you think LX needs to do for mutual growth with partner companies?

Our company has participated in the LX's mutual growth program for years, thereby enhancing our corporate value. We believe that LX's strong commitment to mutual growth with its partners gives motivation to startups or SMEs that want to grow into mid-sized companies. We appreciate LX's efforts for promoting mutual growth as an exclusive cadastral surveying organization and also a leading spatial information agency. We expect that LX's mutual growth programs will become an outstanding example of its kind with a genuine purpose as well as excellent performance. Furthermore, we hope that LX will provide continuous support for SMEs in the spatial information industry and grow into a global company that leads the global market including Korea.



# Materiality Assessment

### Materiality Assessment Process

Based on stakeholder engagement, LX identifies and reports on key issues that affect corporate value creation and sustainability. We have conducted a materiality assessment in accordance with the Global Reporting Initiative (GRI)'s sustainability reporting standards and reflected the three principles of inclusivity, materiality, and responsiveness required by the AA1000 Assurance Standard.

### Step 1. Sustainability Management Issues

Through media research, industry benchmarking, analysis of international standards, review of internal data, and stakeholder surveys, LX has identified 463 major issues related to its sustainability management. Based on internal and external relevance, importance, and probability, 25 issues were first selected among them.

Stakeholder Issues

In addition to media research, we reviewed issues raised by stakeholders, such as customers, investors, and the government.

- Print media, online media, broadcast media
- Business reports, audit reports
- Customer voices, investor opinions
- Policy and regulation analysis

Industry Issues

Through benchmarking industry at home and abroad, we took major issues in the industry into consideration.

- Reports by related organizations under the ministry of land, infrastructure and transport
- Reports on trends and projections of the spatial information and cadastral industry
- Reports by major public institutions
- Reports by overseas institutions

LX's Internal Issues

We collected internal opinions through business strategy analysis, internal document review, and department interview.

- Report on the status of key businesses
- Business performance assessment
- Board agendas
- CEO new year's message
- Manager interviews

International Standards Issues

We reviewed global standards and initiatives related to sustainability management.

- UNGC
- GRI Standards
- ISO26000
- DJSI
- UN SDGs

### Step 2. Impact Analysis

We analyzed 'business impact' and 'stakeholder impact' regarding 25 key issues selected first. In order to review 'business impact,' the relevance between key issues, LX business strategies, and mid-to long-term goals was analyzed and also the financial impact in the aspect of profits, costs and risks was measured. To examine 'stakeholder impact,' a survey was conducted with the participation of 1,123 stakeholders.

Business Impact Analysis

In order to analyze the business impact of sustainability issues, we examined the alignment with business strategies and the financial implications of individual issues.

- **Business Strategy Alignment** Achievement of mid-to long-term goals, business relevance, and business opportunities
- **Financial Impact** Profit creation, cost reduction, and risk response

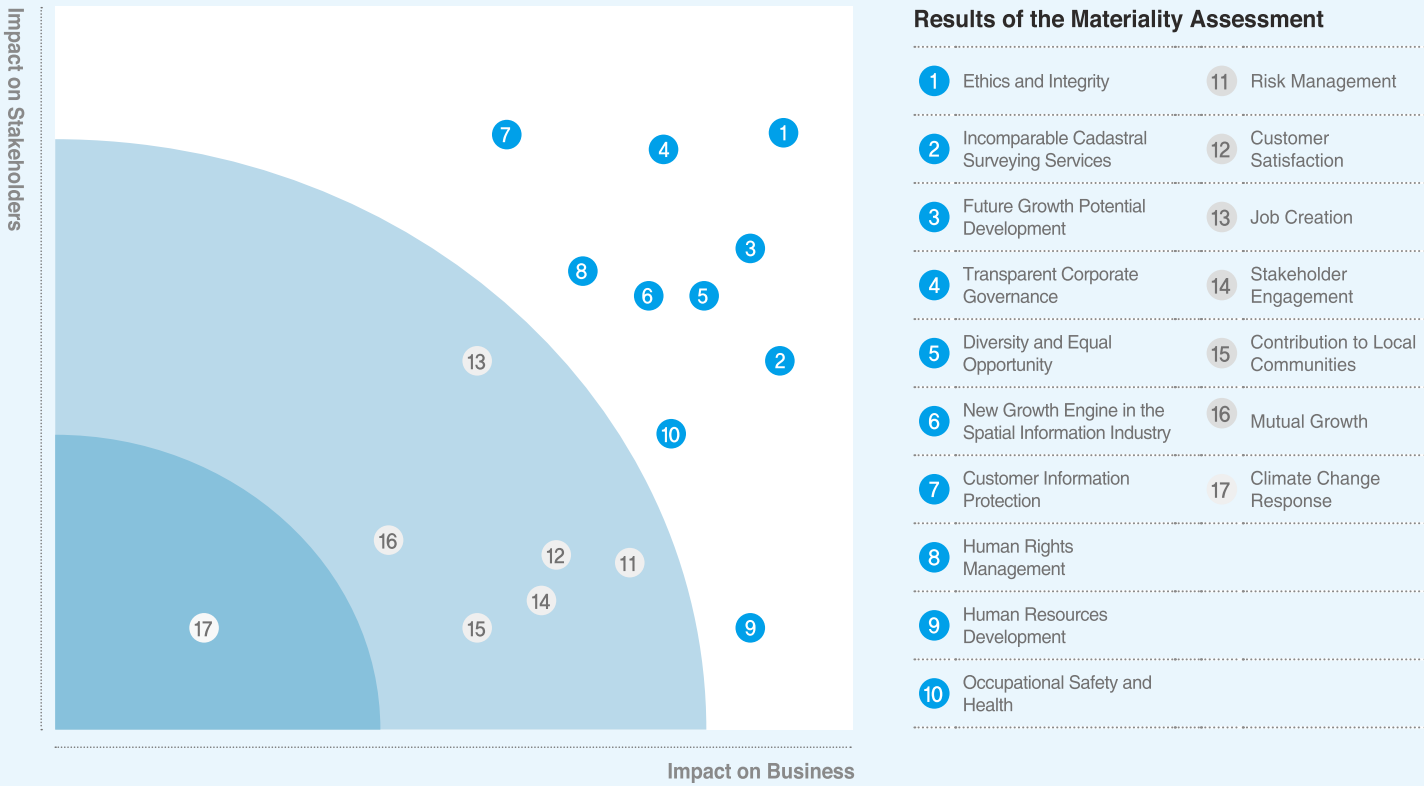
Stakeholder Impact Analysis

We conducted on and offline surveys of internal and external stakeholders to collect opinions on sustainability issues and analyze their impact.

- **Survey Period** November 20 - 26, 2018
- **No. of Participants** 1,123 in Total
  - Internal Stakeholders: 533
  - External Stakeholders: 590

### Step 3. Prioritization of Key Issues

We prioritized 25 key issues based on the comprehensive assessment of business impact and stakeholder impact. Based on this, 17 reporting topics were selected in alignment with the GRI Standards, and our responses and future strategies in accordance with the significance of issues were specified and reflected in the report. The contents of the report have been verified by a third-party agency to ensure reliability and transparency.



Reporting Classification	Core Topics	Prioritization	GRI Aspects	Page
Overview	Stakeholder Engagement	14	Stakeholder Engagement	p 8-9
LX for Change	New Growth Engine in the Spatial Information Industry	6	Internal Issue	p 14-15
	Incomparable Cadastral Surveying Services	2	Internal Issue	p 16-17
	Future Growth Potential	3	Internal Issue	p 18-19
LX for Trust	Transparent Corporate Governance	4	Corporate Governance	p 22-23
	Ethics and Integrity	1	Ethics, Integrity and Anti-Corruption	p 24-25
	Human Rights Management	8	Human Rights, Diversity and Anti-Discrimination	p 26-27
	Risk Management	11	Economic, Social and Environmental Impact Risks and Opportunities	p 28-29
	Customer Information Protection	7	Security and Customer Information Protection	p 30-31
LX for Mutual Growth	Customer Satisfaction	12	Product Accountability	p 34-36
	Human Resources Development	9	Employment, Labor management, Training and Education	p 37-41
	Diversity and Equal Opportunity	5	Diversity and Equal Opportunity	p 38-39
	Occupational Safety and Health	10	Occupational Safety and Health	p 41
	Mutual Growth	16	Supply Chain management and Procurement Procedures	p 42-44
	Contribution to Local Communities	15	Local Community	p 46-49
	Job Creation	13	Staffs and Indirect Economic Effects	p 44-45
	Climate Change Response	17	Energy, Emission	p 50-51



DMA1 LX for Change

We will be the driving force of the fourth industrial revolution

Use of National Spatial Information Portal

10.27 million



Key Issues

Spatial information is a key to success in the 4th industrial revolution. Two-dimensional spatial information based on paper maps has been integrated with 21st century information technology and transformed into three-dimensional digital information. Digitalized spatial information is now used in various areas ranging from Location Based Service (LBS) in people's daily life to professional fields of transportation, defense, disaster/accident, environmental management, and urban planning. It is expected that the combination of spatial information with various industries and technologies will create a new market worth 250 trillion won by 2020. Accordingly, securing key technologies and developing human resources in relevant fields is becoming an important issue for both businesses and countries. In the future, competition for developing and applying core infrastructures and contents, such as spatial information, big data, cloud, and drone, will become more intense across the globe.

Response Strategies

The digitalization of cadastral information that LX has accumulated for a long time will serve as key infrastructure in the spatial information business. Accurate land information paves the way for future environments, such as autonomous vehicles and smart cities. Accordingly, LX collects real-time land information by using advanced technologies, such as IoT and drones, to secure fundamental data in the era of the 4th industrial revolution. Also, we are enhancing our sustainable growth potential by increasing R&D investments that lead the 4th industrial revolution, such as the establishment of the spatial information cloud system, development of AI-based land information services, and creation of land information monitoring platform using drones while fostering global talent. Furthermore, we are promoting cadastral and spatial information projects targeting developing countries including Central & South America, Southeast Asia, and Africa based on high-quality Korean cadastral systems, surveying technologies, and spatial information systems. In this way, we will open the era of smart land in Korea and also emerge as a 'global land information specialist' on the international stage.

R&D Activities (Cumulative)

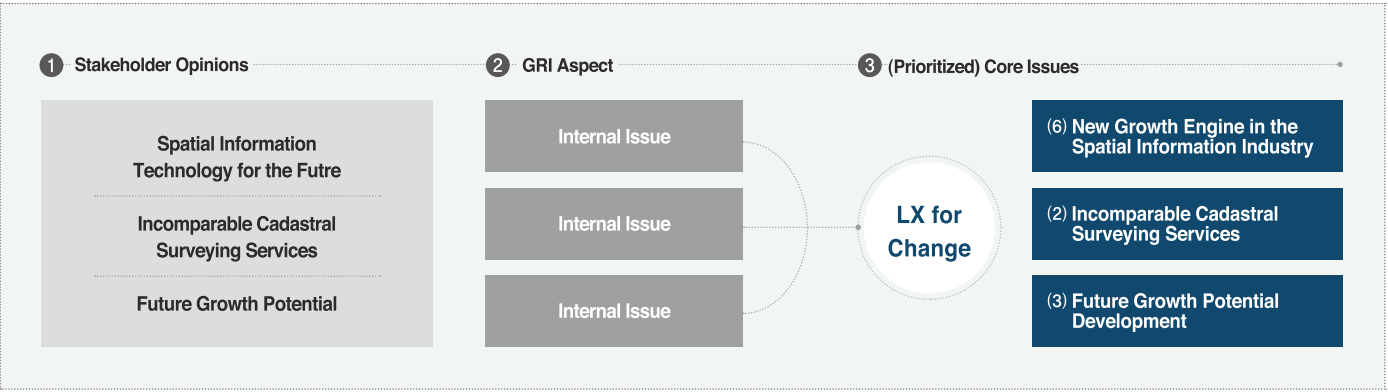
444 cases

Registration of Intellectual Property Rights

459 cases

Decrease in Cadastral Inconsistency Land

181 km<sup>2</sup>





# Spatial Information Technology for the Future

## National Spatial Information HUB

### Construction of Spatial Information System for National Infrastructure Management

LX conducts comprehensive management of spatial information related to national infrastructure. By introducing spatial information to the SOC management system, the safety of facilities and the efficiency of maintenance can be improved. In addition, a more rapid and accurate response can be facilitated in the event of accidents or disasters. We are currently focusing on the enhancement of spatial information management system for highways, railways, and rivers, and will contribute to the stable operation of social infrastructure by expanding management scope in the coming years.

#### National SOC Spatial Information System

Highway	Railway	River
<ul style="list-style-type: none"><li>Enhancement of Highway Management System (HMS)</li><li>Expansion of road register to cover all national roads</li><li>Development of road change information service</li></ul>	<ul style="list-style-type: none"><li>Quality management of railway-related connecting maps and cadastral overlapping maps</li><li>Provision of railway spatial information considering the life cycle of railway structures</li></ul>	<ul style="list-style-type: none"><li>River surveying with the use of drones and comparison of river bed variations</li></ul>

### Integration of Surveys on National Spatial Information

We are working hard to ensure unity of nationwide spatial information through standardization of national survey process. In order to efficiently utilize the results of surveys conducted by the government, information between ministries and agencies are merged together, and the convenience of updating information and maintaining quality has been improved. Through this effort, we support rational decision-making related to government policies, such as maintenance of vacant houses, management of the marine environment, a survey of the public property, promotion of urban regeneration, and recording of cultural heritage.

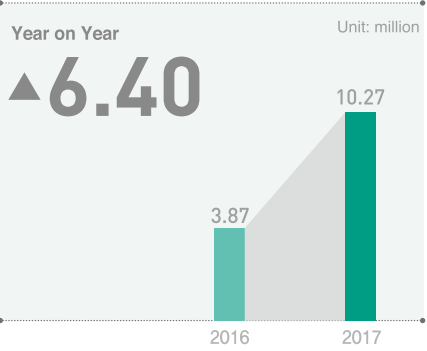
#### Integrated Survey on National Spatial Information

Vacant House Survey	Marine Spatial Information	Service Model Using Drones (UAV)	Support for Property Management
<ul style="list-style-type: none"><li>Management of vacant house information</li><li>Support for vacant house maintenance</li></ul>	<ul style="list-style-type: none"><li>Introduction of monitoring survey system</li><li>Survey of public resources in marine space</li></ul>	<ul style="list-style-type: none"><li>Development of service model using drones</li><li>Establishment of training institute specialized in drones used for national spatial information</li></ul>	<ul style="list-style-type: none"><li>Support for survey of public property</li><li>Improvement of survey system</li></ul>

### Standardization and Convergence of Spatial Information

LX strives for the standardization of spatial information to promote the convergence, sharing, and utilization of such information. By applying ISO, OGC and other international standards as national standards for spatial information, we are now able to converge and utilize new technologies at home and abroad and have a higher competitive edge in the global market. Moreover, we are improving the quality of public data by introducing a quality management system for national spatial information and laying the foundation for the converged spatial information industry. To be specific, we have supported the quality control and advancement of a continuous

Use of National Spatial Information Portal



cadastral map, which is an application base of national spatial information, and also the establishment of mid-to long-term address policy in response to future high-density cities and intelligent information society through the implementation of the Road Name Address System.

### Geo-IoT, Geospatial Information Platform

LX has been developing a GIS (Geographic Information System) platform service to realize IoT (Internet of Things)-based land management. 'Geo-IoT' technology combines spatial information with IoT to share location, space and sensor data between objects with people. By analyzing this data and predicting the state of space, we can provide people-centric smart space services. Also, we offer unique IoT services, such as identification of areas for urban regeneration through drone shooting, by developing location-based sensor data processing technology.

## Intelligent Spatial Information Service

### Utilization of Spatial Big Data

LX has been expanding its big data business, which is integrated with future technologies, such as the 4th industrial revolution, artificial intelligence, and Internet of things. We are striving to develop methods to utilize big data in our daily life by combining spatial information with big data technologies. We will contribute to resolving social issues through space-based big data analysis, such as disease mapping for farmers and improvement plans for mom-and-pop stores.

### National Spatial Information Portal Providing Easy and Convenient Access

LX provides high-availability spatial information to the public through a national portal service. By unifying 11 existing systems, including the open platform for spatial information and Onnara real estate information portal, we offer integrated national spatial information of approx. 1,300 types. Thanks to our efforts to enhance user convenience through an integrated platform that provides quality spatial information to the public, the number of applications in 2017 has increased by three times compared to the previous year.

### LX Land Info-e Application

LX Land Info-e Application provides land and safety information promptly and accurately. This real-time information service enables us to protect the property rights of the people by minimizing damage from real estate scams or investment frauds. In addition, we provide location-based services, such as shelter information and emergency notification, to build a safety net against accidents or disasters. Due to these efforts, we have been selected as the Best APP of the Year in the public service sector for four consecutive years (2015 to 2018).

### National Land Information Monitoring Using Drones (UAV)

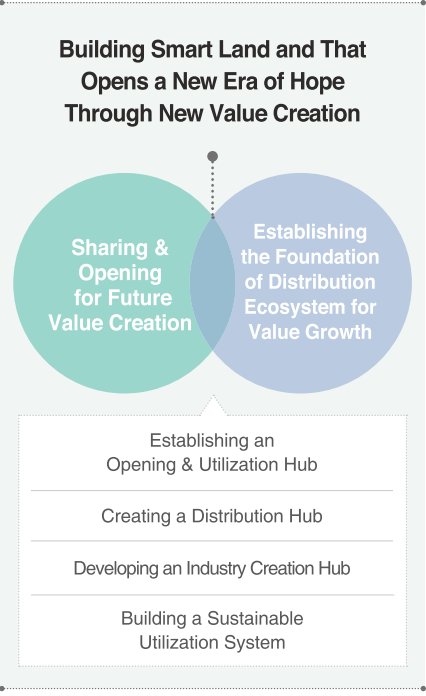
LX has been building a national land information monitoring system using drones. We are creating an environment that promotes aviation safety, such as accident prevention system given the dramatic increase in drone usage, and also operating an integrated platform for drone footage participated by the public and private entities. We will upgrade the monitoring system by conducting high-resolution image-based monitoring, managing facility images, and providing 3D modeling viewer service. We currently have drone footage covering 196 times the Yeouido area, and more than 160 institutions are engaged in the enhancement of integrated platform for drone footage.

LX Land Info-e Application:  
Best APP of the Year

4 Consecutive Years

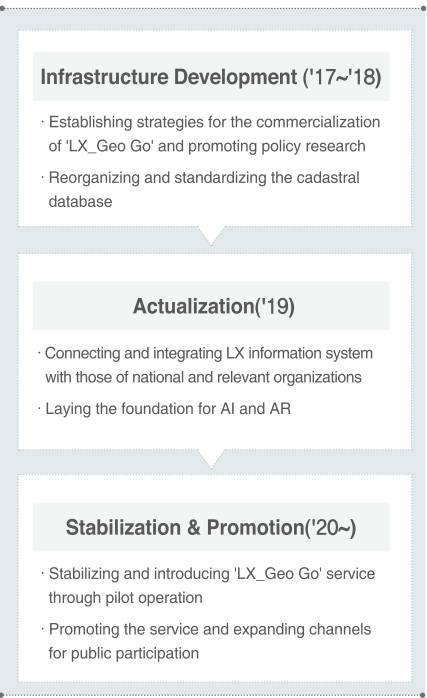
Grand Prize

### Operational Direction of National Spatial Information Portal



# Unrivaled Cadastral Surveying Service

## Intelligent Cadastral Service 'LX\_Geo Go'



## Cadastral Surveying Quality Improvement



# Future Cadastral Information Service

## Expansion of Public Roles of Cadastral Information

LX has strengthened the public role of cadastral information through integration and systematic management. By integrating survey control points and providing accurate location information, we protect the property rights of the people and promptly respond to various information needs based on the 4th industry. Moreover, we will reorganize the existing 28 land classification systems that do not reflect the diversity and complexity of land use and introduce a single land classification system that can be used by both government departments and municipalities. Furthermore, we support the construction of a comprehensive land information system in North Korea in preparation for reunification in the future.

## Cadastral Surveying Quality Control System

We have introduced a quality control system to provide reliable cadastral surveying services to the public. Quality control items were defined for each process, based on which we created a manual for standardization of work. In accordance with the time of system implementation, we determined responsible organizations and personnel, standardized technical inspection, and strengthened regular inspection. Through this effort, we intend to improve the quality of cadastral surveying and increase convenience for people by preventing civil complaints related to cadastral surveying.

## Smart Notification of Cadastral Surveying Service

With the introduction of mobile-based notification service, customers can now use cadastral survey data at anytime and anywhere. The smart notification service enables customers to check the progress and results of the survey upon application in real-time and to get information through a single channel from consultation to completion. This has reduced unnecessary customer visits and call center inquiries, and improved customer satisfaction with the service.

## Smart Notification of Cadastral Surveying Service



## Intelligent Cadastral Service 'LX\_Geo Go'

'LX\_Geo Go' is an intelligent cadastral service that provides comprehensive information on land use based on three-dimensional data. We plan to offer consulting services on optimal land use that will contribute to improving the value of people's land by combining cadastral information with Artificial Intelligence (AI) technology. Also, we will provide customized cadastral information in real-time based on big data using Augmented Reality (AR) technology to protect the property rights of the people, such as land and buildings. Through this effort, we will lead the future of intelligent cadastral services that contribute to public benefits and deliver optimal survey results by extending support for designing the land for the future, such as, adjustment of land boundaries and the land classification system, and for making decisions for national land policies.

# Cadastral Resurveying to Increase Land Value

## Digitalization of Land Records

LX is engaged in a cadastral resurvey project to accurately survey lands whose cadastral boundaries do not match with actual ones and convert them into digital cadastral data according to international standards. Currently, the location of Korea has a gap of approx. 365 meters with the international standard, using the survey control points of Japan (Tokyo). Moreover, there might be controversies about inaccurate land information surveyed more than 100 years ago. In this regard, we are conducting a cadastral resurvey of 5.54 million parcels (about 15%) out of 37 million parcels nationwide that are inconsistent with the cadastral map. Related social disputes will be resolved by land boundaries become clearer. And we expect that people's property rights will be protected, and the national land will be efficiently managed by registering the information of land surface, ground and underground at a digital cadastral database.

## Development of 3-Dimenstional Cadastral Data Model

LX has been introducing numerous state-of-the-art technologies and equipment to develop a Korean-style 3D cadastral data model. The utilization of N-TOSS, AR, drone footage, and smart stations is improving the efficiency of the project. In particular, the N-TOSS system, which was developed by combining the TOSS program for on-site surveying and the Global Navigation Satellite System (GNSS) equipment, has increased the number of observation points per person by more than four times to improve speed and productivity on site. Also, the use of drones has allowed the delineation of property boundaries in areas that were difficult to access before, and the public understanding of cadastral resurveying and acceptance of boundary discussion are increasing thanks to the utilization of video footage.

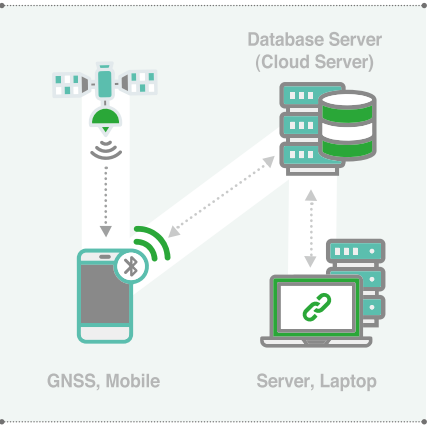
## Connection with National Land Development Project

In promoting our cadastral resurvey project, national land development projects and social infrastructure development projects are also taken into consideration to maximize efficiency. We select target areas for cadastral resurveying among the lands for urban renewal project and conduct research and on-site development at the same time, thereby reducing cadastral surveying costs and contributing to streamlining administrative procedures. Besides, we are speeding up the entire process by collaborating with projects that correct errors in cadastral records based on paper drawings and convert the local (Tokyo) geodetic system into the world geodetic reference system. The information on structures acquired through cadastral resurveying is linked to the national real estate system to lay the foundation for sharing the latest information.

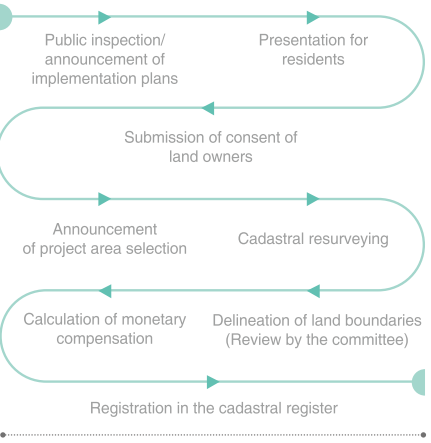
## Cadastral Resurvey Process

Our cadastral resurvey project will be completed by 2030. The national budget fully supports all expenses incurred from surveying to registration without burdening landowners. LX announces the implementation plan and surveys the areas for resurveying with the consent of landowners. After the delineation of land boundaries, a digitalized land register system will be established. LX will complete a Korean smart cadastral map through the cadastral resurvey project so that the utilization of national spatial information will be enhanced, the local economy will be reinvigorated, and the foundation of spatial information integration will be consolidated.

## N-TOSS System



## Cadastral Resurvey Promotion Process





# Future Growth Potential

## Cumulative Number of R&D







## LX with the World

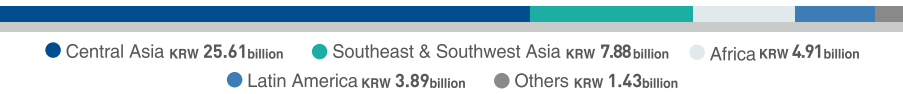
### Global Advancement of Land Information

LX is promoting a number of overseas businesses for developing countries that need to build a modern land information system. Based on our know-how and experience in land development and management, we provide comprehensive support for the cadastral survey, land registration, spatial information system, and human capacity development in developing countries. Moreover, we secure overseas finance and strengthen marketing activities for ordering agencies at home and abroad to win global projects. With the goal of 'enhancing the global competitiveness of the spatial information industry,' we promote exchanges and cooperation with advanced foreign agencies and take the lead in the overseas expansion of the spatial information industry.

### Global Business Areas

Cadastral Survey	Land and Spatial Information Consulting	Capacity Building	Spatial Information Package
 <ul style="list-style-type: none"><li>Improvement of cadastral systems, production of cadastral maps, land registration</li><li>Launched in Laos in 2006 and expanded to Azerbaijan, Jamaica, Uruguay, Chile, Colombia, etc</li></ul>	 <ul style="list-style-type: none"><li>Consulting on land systems, introduction of land administration information systems, construction of land information management systems</li><li>Started in morocco in 2007 and expanded to Africa, including Tunisia, Ethiopia, and Tanzania, and other Countries</li></ul>	 <ul style="list-style-type: none"><li>Implementing the capacity building project for over 360 students in 75 developing countries</li><li>Winning a contract for capacity building of land information systems and conducting training in developing countries organized by KOICA, world bank, etc</li></ul>	 <ul style="list-style-type: none"><li>Organizing overseas projects that have been individually implemented into a comprehensive spatial information package for commercialization</li><li>Supporting the development of general spatial information infrastructure through creation of control points, land registration, digitalization of cadastral maps, equipment support, establishment of information systems, and training on operation</li></ul>

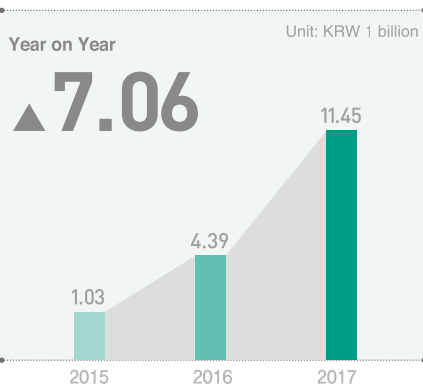
### Global Business Performance



### Global Network for Exchange and Cooperation

LX has attended the annual World Bank Land and Poverty Conference held at the World Bank headquarters. This year, more than 1,800 participants from 125 countries discussed land policies and national development at the conference. LX presented innovation cases of GIS spatial analysis, held interviews (9) with officials from major overseas agencies, including the Uruguay Cadastral Director, and operated 'LX Promotion Hall' to introduce overseas business marketing and advanced domestic technologies. Also, we participate annually in the 'Standing Committee of International Federation of Surveyors (FIG)' organized by the surveyor committee of 7 European countries to announce research paper, and also in the annual meetings of Commission 3 (spatial information management) and Commission 7 (cadastral and land management) to share our knowledge and experience. In 2019, Commission 7 will have its annual meeting in Korea. At the 11th 'Ibero-American Cadastral Symposium,' we were specially invited by the host country, Mexico, to deliver a keynote speech, and built a cooperative system in the cadastral and spatial information industry between Korea and Latin American countries.

## Expansion of Joint Entry into Overseas Markets



## Partnership with Private Enterprises for Overseas Expansion

LX operates 'Overseas Expansion Support Center' to encourage the overseas expansion of domestic private enterprises. We have upgraded the website to provide integrated information on the status of spatial information systems by country, international biddings, and consulting services, and arrange meetings between companies hoping to enter foreign markets and overseas ordering agencies. In addition, we have been supporting offshore marketing activities, such as road shows and invitational training, for foreign countries that are likely to place an order and expanding joint entry into overseas markets as a reliable partner.

### Overseas Expansion Support Process



## R&D, Base for Growth

### R&D of the 4th Industrial Revolution Key Technologies and National Spatial Information Policies

The need for R&D of technologies and policies to lead the 4th industrial revolution and the development of spatial information industry has been increasing. Accordingly, LX is actively engaged in R&D of core technologies, such as converged positioning technology, intelligent system, and platform technology, and also of policies, such as the development of spatial information industry, expansion of spatial information market, and survey of land and space use. In 2017, the completion of a digital map for autonomous driving, acquisition of land information through AI, and provision of spatial information services was selected as crucial research subjects and heavily invested.

### R&D Network and Performance

As the only research and education institute for national spatial information in Korea, LX has conducted a number of research projects on various subjects, such as the development of spatial information technologies and advancement of spatial information platform technologies. As of 2017, the cumulative number of joint researches is 126, and that of intellectual property rights is 479. Besides, the Smart Land Expo and cadastral seminars are held for experts and citizens to share trends and the latest technologies in the land information industry and provide a place for cooperation and exchange. Besides, 'Spatial Information' magazine and 'Cadastral and Land Information' academic journal are published to promote our R&D achievements.

### Developing Human Resources Specialized in Land Information

LX Education Institute develops human resources through advanced technical training and convergence land information training. Along with the current discipline for employee capacity building and sponsored training for public officials, we have introduced practical training for ordinary citizens. In addition, 'Space Information Academy' is operated to provide a customized curriculum for employees and job seekers in the spatial information industry. In the years to come, we will introduce professional training courses required for developing the spatial information industry and strengthening global competitiveness and continue to produce excellent professionals.

## 2017 Training Course





DMA2 LX for Trust

We will become a public institution trusted by the people

Development

Participation in Board Meetings

96%



Key Issues

In recent years, legislation of social values has been promoted, and public demands and expectations for CSR activities of public institutions have also increased. The Moon administration is striving to achieve qualitative growth and realize social values with the goal of 'people-centered embracing nation'. Accordingly, companies need to put more emphasis on the management of non-financial aspects, including transparent corporate governance, ethics management, and respect for human rights. Meanwhile, the global economic environment has also been rapidly changing, and thus businesses are required to introduce risk management systems to address potential risk factors. With the advancement of IT technology, the cyber environment has been expanding and people are more concerned about personal and business information leakage. As mentioned above, in today's business environment, the ability of companies to proactively respond to various risk factors, both online and offline, has become more important than ever.

Response Strategies

The driving force behind the business promotion in public institutions is people's trust. Here at LX, businesses are promoted based on the management principles of fairness and transparency so that we can establish ourselves as a trusted public institution. We ensure diversity and independence of the board of directors to maintain a balanced corporate governance and strive to enhance transparency in management decision-making. In addition, we are establishing corporate culture and systems to emerge as an integrity-leading organization, such as promotion of ethical culture across the company, an operation of systematic internal check system, and declaration of human rights management. Our membership of the Fair Player Club, which supports corporate social responsibility, highlights our efforts to create a transparent and clean management environment. In fact, we have boasted excellent achievements for years in anti-corruption policy evaluation, public institution integrity assessment, and external assessment of the internal audit. Besides, we have introduced a crisis management system in alignment with mid-to long-term management strategies. This enables us to conduct a comprehensive examination of various risk factors that may arise across financial and non-financial sectors and thus, not only to address but to prevent risks effectively.

Anti-corruption Policy Evaluation

Evaluation Waiver

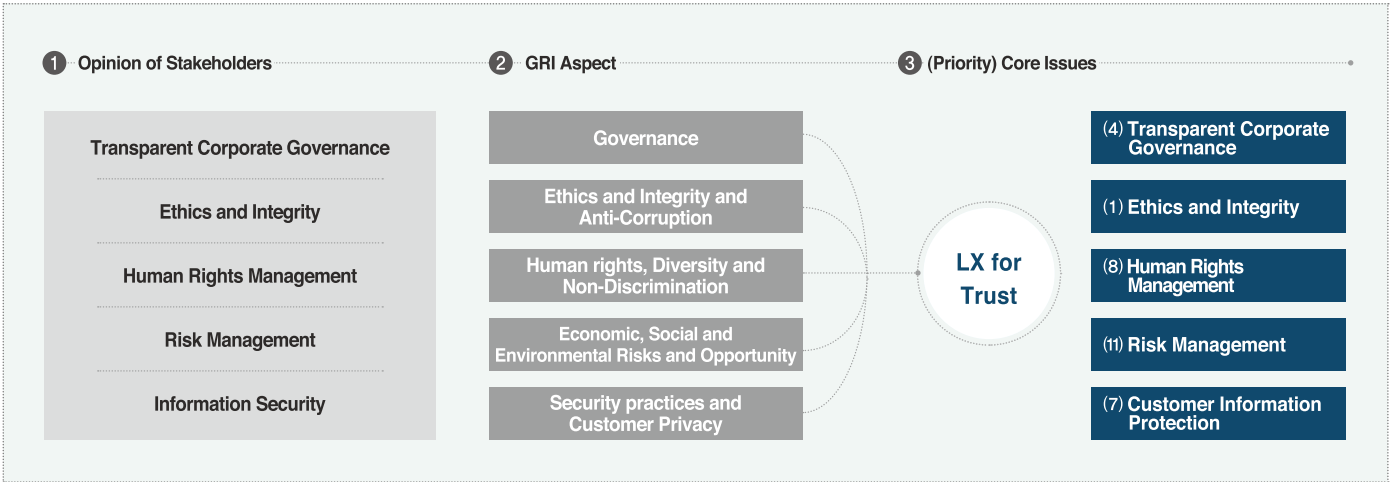
(Grade 1 in 2015, 2016)

Human Rights Management Index

38 cases

Risk Management Index

24 cases





# Transparent Corporate Governance

## Transparent and Independent Board of Directors

In order to establish balanced corporate governance, LX has formed and operated the board of directors on the principles of self-management and responsible management. The board consists of four executive directors and six non-executive directors with expertise in management, spatial information, accounting, and legal affairs. Following the Act on the Management of Public Institutions, the CEO also serves as the Chairman of the Board and management transparency is ensured by maintaining a majority of non-executive directors. The executive directors are appointed the CEO while the non-executive directors by the Minister of Land, Infrastructure, and Transport. All executives are granted independent decision-making authority and responsibility.




## Efficient Operation of the Board of Directors

In 2017, a total of 11 regular board meetings, 23 expert committee meetings, and 3 executive meetings were held. 88 agendas, including 28 for resolution and 60 for reporting, were deliberated and approved. The attendance rate has increased compared to that of the previous year to reach 96%. In order to streamline the operations of the board, the steering committee is regularly held to deliberate agendas for resolution while the board focuses on agendas for reporting. This has allowed an in-depth review of agendas, leading to an increase in the number of completed agendas.

Composition of the Board of Directors As of November 2018

Classification	Name	Gender	Title	Work Experience
Executive Director	Choi, Chang-hak	Male	Chariman of the Board	Director of Daegu Digital Industry Promotion Agency
				Director of LX Spatial Information Research Institute
				Head of E-government Department at the Presidential Committee on Government Innovation
	Cho, Man-seung	Male	Director	Head of Cadastral Business HQ
				Head of Gwangju Jeonnam Regional Headquarters
	Choi, Gyu-seong	Male	Director	Head of Seoul Regional Headquarters
				Head of Management Support Office, Head of Business Support Office
	Kim, Gi-seung	Male	Director	Head of Gyeonggi Regional Headquarters
Head of Daejeon & Chungnam Regional Headquarters				
Non-Executive Director	Shim, Dong-yeol	Male	Director	(Current) Head of Defense Industry Department, Korea Business Institute
				Head of Korea Defense Acquisition Program Institute
	Yoo, Seok-yeon	Female	Director	(Current) Professor, School of Urban and Environmental Engineering, University of Seoul
				(Current) Member of Seoul Metropolitan Government's Urban Renewal Committee
	Lee, Deok-choon	Male	Director	(Current) Partner Lawyer, Law Firm Hanseo
				Lawyer, Law Firm Choisang
	Kim, Jeong-beom	Male	Director	(Current) Lawyer, Law Firm Minwoo
				(Current) Adjunct Professor, Hanyang University School of Law
	Hwang, In-tae	Male	Director	(Current) Director of Business Division, Damul Machinery
				CEO of Dongsung Motors Co., Ltd
Cho, Jae-won	Female	Director	(Current) Head of 01 Architecture Urban Study & Design	
			(Former) Adjunct Professor, Yonsei University	

## Composition of Expert Committee

Policy Committee	Management Committee	Technical Committee
  Deliberation on establishment of planning and management strategies, organizational management, policy decision-making, budgetary management, performance management, management evaluation, legal strategies and protocols	  Deliberation on management support, asset management, improvement of the personnel system, financial management, for-profit projects, labor management, compensation and welfare benefits	  Deliberation on cadastral systems, surveying technologies, management and institutions for land information on business development, overseas projects, information security and international cooperation

## Expertise and Diversity

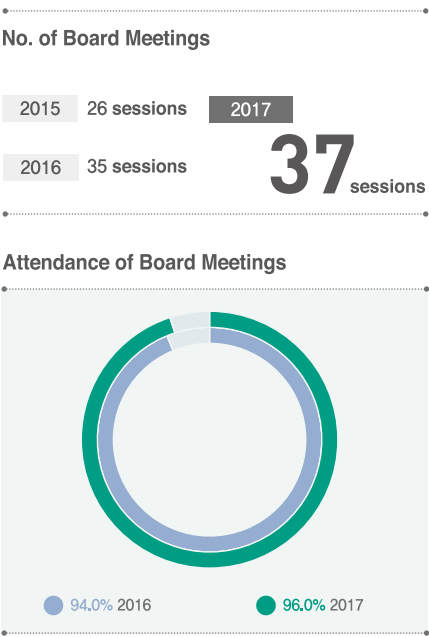
LX appoints non-executive directors with practical experience and know-how in related fields to enhance the expertise and diversity of the board. Non-executive directors support management decision-making by field and conduct checks and surveillance on internal management activities. At the time of executive appointment, diversity, such as gender, age, and nationality, and expertise, such as career, experience, and educational background, are considered for an mutual complement. The Expert Committee was established under the board to review agendas in each field and assign responsibility and accountability to management decisions. The Management Committee, led by non-executive directors, deliberates on business management, financial management, legal systems, and regulations, and the Technical Committee reviews matters related to cadastral systems, surveying techniques, and business development to support rational decision-making.

## Facilitation of Communication and Participation

To enhance the understanding of LX business areas and regional characteristics, non-executive directors are assigned to a certain region, where they serve as the head of district office or the head of the regional headquarters for 1 day to identify on-site grievances and provide advice. We promote communication between non-standing directors and business sites by increasing the number of on-site board meetings and conducting consultations, special lectures, and on-site inspections. We provide management information in real time through the board's website and mobile site. We also encourage executive participation by monitoring the performance of individual activities. In 2018, we created synergies through communication by holding innovation meetings with the invitation of former and current non-executives and also workshops for new non-executive directors.

## Evaluation and Compensation

We conduct fair and transparent evaluations of the board's activities in accordance with the procedures set out in relevant laws and guidelines. The CEO concludes a management contract with the Minister of Land, Infrastructure, and Transport on management goals and key tasks, and undergoes regular evaluations of management performance. Executive directors sign job performance contracts with the CEO and receive compensation based on the results of the evaluation. Meanwhile, non-executive directors receive compensation according to the Ministry of Economy and Finance's 'Guidelines on the Remuneration of Executives of Public Institutions.'



# Ethics management

## Creation of LX Ecosystem of Integrity

### Ethics management System

We are striving to become 'Clean LX Trusted by the People' by creating an ecosystem of integrity based on ethics management. In order to realize the value of clean LX that emphasizes principles and basics, we have announced ethics management system and established six strategies in promoting businesses, improving employee awareness and attitude, and building a cooperative relationship with stakeholders. At LX, the Ethics Management Committee and the Integrity Promotion Team are operated as designated organizations for integrity and ethics affairs, and a cooperative network is constructed to promote the culture of anti-corruption and integrity. The activities of integrity and ethics determined by the management are spread to each organization and department by Code of Conduct Officers and Integrity Officers, and transparently managed through external cooperation network and monitoring system.

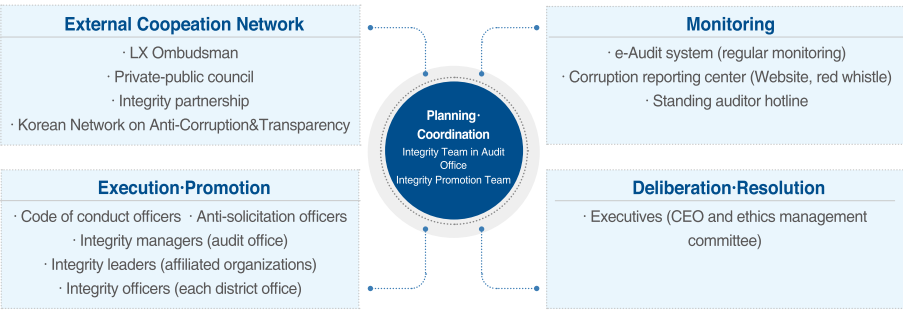
### Ethics management System

Goal	Clean LX Trusted by the People	
Direction	Realizing the Value of Clean LX that Emphasizes Principles and Basics Grade 1 in Overall Integrity / Grade 1 in the Evaluation of Anti-Corruption Policy	
Task	Preventing corruption through communication and cooperation	Enhancing integrity in areas vulnerable to corruption
	Strengthening ethical practices and integrity in leadership	Promoting the culture of integrity through private-public cooperation system
	Establishing comprehensive anti-corruption plans with a focus on principles and basics	Spreading the best practices of anti-corruption

### Integrity Governance

LX is strengthening its integrity governance to realize transparency management that meets the expectations of the people. Through the LX Ombudsman's activities, we identified areas vulnerable to corruption and set forth terms of compliance. The Voluntary Anti-Corruption Council of 11 organizations nationwide conducted cooperative anti-corruption activities, leading to mutual inspection and synergy creation. Since joining the 'Fair Player Club' organized by the United Nations Global Compact (UNGC) and sponsored by the Ministry of Trade, Industry and Energy and the Anti-Corruption & Civil Rights Commission, LX has signed an anti-corruption pledge and taken the lead in anti-corruption activities. Also, we held joint campaigns with the Korean Network on Anti-Corruption & Transparency as part of private-public cooperation activities. At Jeonju Station and Hanok Village, integrity promotion campaigns, such as the establishment of the anti-graft law and protection system for whistleblowers, were carried out to improve the integrity of employees and local residents.

### Collaboration System for Ethics Affairs



Average Hours of Integrity Training per Employee

2017  
**25.6** hours

Completion Rate of Integrity Training

3 Consecutive Years  
**100** %

## Promotion of Ethical Culture

### Integrity in Leadership

LX held a pledge ceremony participated by all employees to establish a transparent and fair culture of integrity. The CEO took the lead in introducing compulsory training on integrity for executives and sent 'Integrity Letter' of the standing auditor to improve integrity awareness and encourage active participation. For working-level employees, LX Integrity Day, Integrity Leader Workshop, and Integrity Promotion Team were organized to maximize their participation.

### Anti-Corruption & Integrity Culture Infrastructure

A total of 13 anti-corruption and ethics management workshops were held for all organizations in order to spread the culture of integrity across the nation and build on-site anti-corruption capacity. Also, executives underwent 'corruption risk assessment' to self-check integrity and take the initiative in promoting integrity. The 'Integrity Culture Festival' held in Jeonbuk province area provided a venue for integrity culture where LX employees and local residents participated in street plays and children's plays on integrity with Integrity Mentoring and Integrity Gag Concert.

#### Communication Programs

- Publishing the integrity newsletter with essential information for managers
- Conducting training and communication programs on integrity and ethics for executives
- Sharing Q&As on the improper solicitation and Graft Act based on case studies
- Establishing a culture of forming consensus with new communication programs

#### Engagement Programs

- Organizing the UCC contest on integrity with the engagement of all
- Sharing best practices by operating the debating day on integrity
- Producing and distributing the slogan for ethics management and screen saver
- Raising the ethical awareness through the pledge on anti-corruption and integrity of all employees

### Substantiality of Anti-Corruption and Integrity Training

LX provides employees with regular training on anti-corruption and integrity to enhance their ethics and integrity. Employees are required to complete off-the-job training of 8 courses and integrity training of 2 hours, while those in areas vulnerable to corruption are offered intensive training. Moreover, we provide lines of duty specific training for employees to raise the effectiveness of training. Given that our organizations are spread across the country, executives provide 'outreach integrity training,' which has been participated by more than 1,000 employees. Accordingly, we achieved an average of 25.6 hours of integrity training per employee.

### Reinforcement of Internal Check System

We are strengthening internal check systems by training auditors with the best capabilities and ensuring their independence. In order to improve our expertise in auditing, internal employees have been provided with customized training and supported in acquiring professional qualifications. As a result, all of the trainees achieved the Certified Internal Auditor (CIA) certificate. In addition, we have the Audit Advisory Committee including outside experts and Civil Integrity Auditor in place to ensure the transparency and reliability of audit activities. We are taking more public responsibilities by expanding preventive audits and conducting follow-up inspections for improvement and recurrence prevention. Also, problems were identified and improvements were made about areas vulnerable to corruption.

### 2017 Evaluation of Anti-Corruption Policies

1st Grade in 2 Consecutive Years('15-'16)

## Evaluation Waiver

### Anti-Corruption Pledge





# Human Rights Management

## Establishment of Human Right Management Committee



## Reporting Human Rights Management Implementation Plan and Results



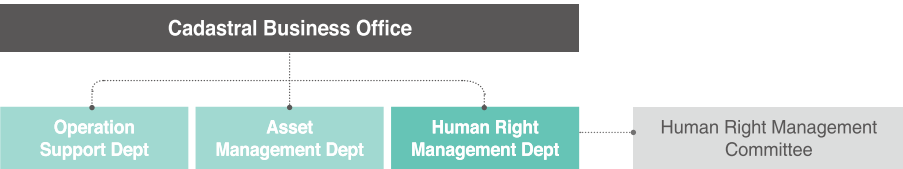
## Spread of a Culture for Respecting Human Rights

### Establishing a System for Human Rights Management

LX does the utmost to prevent human rights infringement of stakeholders while recognizing the importance of human rights. LX joined the UN Global Compact in 2007 to comply with the guideline on respecting human rights, and prescribed and promulgated the Declaration on Human Rights Management in 2015 based on the Guideline on Human Rights Management of the National Human Rights Commission of Korea. In 2016, we laid a framework for implementing human rights management by prescribing an implementation guideline for human rights management. We review the status of implementation each year by establishing a system for implementing human rights management in order to protect the rights of employees and stakeholders.

### Setting up a Unit for Human Rights Management

LX launched the Human Right Management Dept. in 2018 which is exclusively in charge of human rights management in order to prevent human rights infringement that might occur in management processes, thereby protecting the dignity and values of human rights and enhancing human rights. Also, we formed the Human Right Management Committee engaging the top executives and external stakeholders to play roles as a decision-making body for executing overall human rights management policies. The committee consists of seven members, discussing essentials for devising and implementing plans for raising human rights, and conducting the human rights impact assessment and reviewing the result. Specific action plans based on the result are handed over to the Cadastral Business Office as a working-level unit for implementing them.



### Education on Human Rights

LX implements education on human rights for all employees to be aware of the importance and necessity of human rights management. Education on human rights aims for more proactive engagement of employees by enabling all employees to communicate together to empathize with respect and practice of human rights through collective and cyber courses, thereby providing rewards to high performers based on the result of human rights education.

Type	Unit	2016	2017
Off-the-job Training	Persons	2,775	510
Cyber Course	Persons	711	3,981
Total	Persons	3,486	4,491

▲28.8%

### Management of Human Rights Issues

LX exclusively established and has managed a human rights management process based on the Human Rights Management Guideline and a checklist of the National Human Rights Commission of Korea. We review if specific human rights issues are present throughout the value chain, and tap onto human rights violation-prone groups, thus striving to protect human rights.

## Identifying and Managing Human Rights Issues

### Identification of Human Rights Risks

To identify potential human rights issues, LX checked the current status of human rights management and human rights risks by utilizing the Human Rights Management Guideline and a checklist of the National Human Rights Commission of Korea once a year. In 2018, we discovered key human rights issues through the diagnosis of human rights level, and conducted the human rights survey and Focus Group Interviews (FGIs) for prioritization of issues. Based on the outcome, we figure out potential human rights risks that might occur for all stakeholders within the value chain and strive to prevent human rights infringement.

### Human Rights Impact Assessment

The human rights impact assessment is a process to identify and asses actual and potential human rights risks that might affect human rights as a management activity to assess human rights risks. LX conducts the assessment at the institutional level each year and review the status of implementation based on the Human Rights Management Guideline and a checklist of the National Human Rights Commission of Korea. In 2018, we commissioned the task to Marcspoon, a third-party assessor, for objective human rights impact assessment so that we could identify human rights impact in a systematic and effective manner. We referred to the outcome for human rights protection activities in 2019.

### Activities of Human Rights Protection

LX takes measures for human rights relief and improvement for stakeholders including employees, partners, customers, community residents, and subsidiaries. We improve the system and the culture for human rights management to protect human rights of stakeholders discovered through groups that are prone to human rights violation. Diverse human rights protection programs are created to intensify grievance handling channels for each vulnerable group and raise sensitivity towards human rights, while identifying the current status through due diligence on identified human rights issues that are prioritized. Such programs are implemented upon consultation with related divisions. Moreover, we manage risks preemptively by periodically checking out the status of human rights by establishing a human rights management process to prevent human rights risks.

### Grievance Resolution Procedure

LX strives to listen to grievances and complaints of employees and reasonably handle them. We run an integrated resolution procedure to gather employees' feedback along with the employee counseling desk, analyze factors for causing employees' grievances and conflicts based on the data registered in the system, and devise countermeasures.

### Monitoring and Reporting

LX conducts internal and external monitoring to minimize human rights-related risks that might occur inside and outside the company. We review and complement human rights situations periodically by doing so, and report on critical issues and developments associated with human rights management to the Human Right Management Committee. We incorporate human rights information after reviewing it in the third-party verification for a more transparent disclosure of human rights management information, and post it in the UN Global Compact.



# Risk Management

## Proactive Crisis Response

### Risk Management System

With the increasing uncertainty in the business environment, active and preemptive crisis response has become more important. As a public institution that will lead the future of the spatial information industry, we are building a company-wide risk management system to secure global competitiveness and effectively respond to financial and non-financial risks that may arise.

For risk prevention and management, the 'LX Crisis Signal Light System' is operated to conduct monitoring at all times. Also, virtual simulations are performed so that we can take prompt action when a crisis occurs. The crisis management manual in alignment with the management plan has been upgraded to prevent the reoccurrence of similar crises. Moreover, the 'Risk Management Committee' chaired by the CEO has been established to generally oversee the risk management system and strengthen proactive response capabilities.

### Risk Management System

Goal	Contributing to Achieving Management Goals through Efficient Crisis Management		
Direction	Risk Prevention	Prompt Crisis response	Prevention of Recurrence of Similar Crises
Task	· Crisis signal light system · In-Phase risk reporting system	· Notification of risks that may arise · Simulation training	· Examination of risk management · Upgrading of risk management manual

### Risk Type and Response Process

We have identified risk types in four areas of management, disaster, publicity, and conflict with the consideration of our businesses and organizational characteristics. The four risks that are defined are periodically checked and reported on the status of responding to crises under the leadership of the supervisory department in charge. In addition, we foster risk management competencies and countering capabilities by conducting internal and external training and mock-up training for crisis management in order to boost crisis managing capabilities. When signs of risks are detected, measurement and analysis based on key risk indicators are conducted, and a risk management committee and a task force are immediately formed to perform recovery activities and monitoring at any time. In the post-crisis period, we evaluate response activities and also revise and improve the crisis management manual to prevent the recurrence of similar crises.

### Risk Type

Management	Disaster	Publicity	Conflict
 <ul style="list-style-type: none"><li>· Profit, liquidity</li><li>· Government Policy and budget</li><li>· Estimation of demand for cadastral survey</li></ul>	 <ul style="list-style-type: none"><li>· Natural disasters</li><li>· Information Security, IT system</li><li>· Industrial accidents</li></ul>	 <ul style="list-style-type: none"><li>· Media report</li><li>· Stakeholder communication</li></ul>	 <ul style="list-style-type: none"><li>· External conflicts such as civil complaints</li><li>· Internal conflicts between labor and management</li></ul>

### Risk Response Process



## Strategic Risk Management

### Financial Risk Management

LX ensures liquidity by restructuring its business portfolio and streamlining fund management in accordance with changes in the business environment. Along with the analysis of the internal financial structure and cash flow, we have established and managed key risk management indicators with the consideration of various external factors, such as interest rates, stock prices, and volatility in oil prices, so that we can effectively respond to financial risks in advance. As a result, we have been operating in the black with zero debt and achieved a net profit of KRW 53.8 billion in 2017.

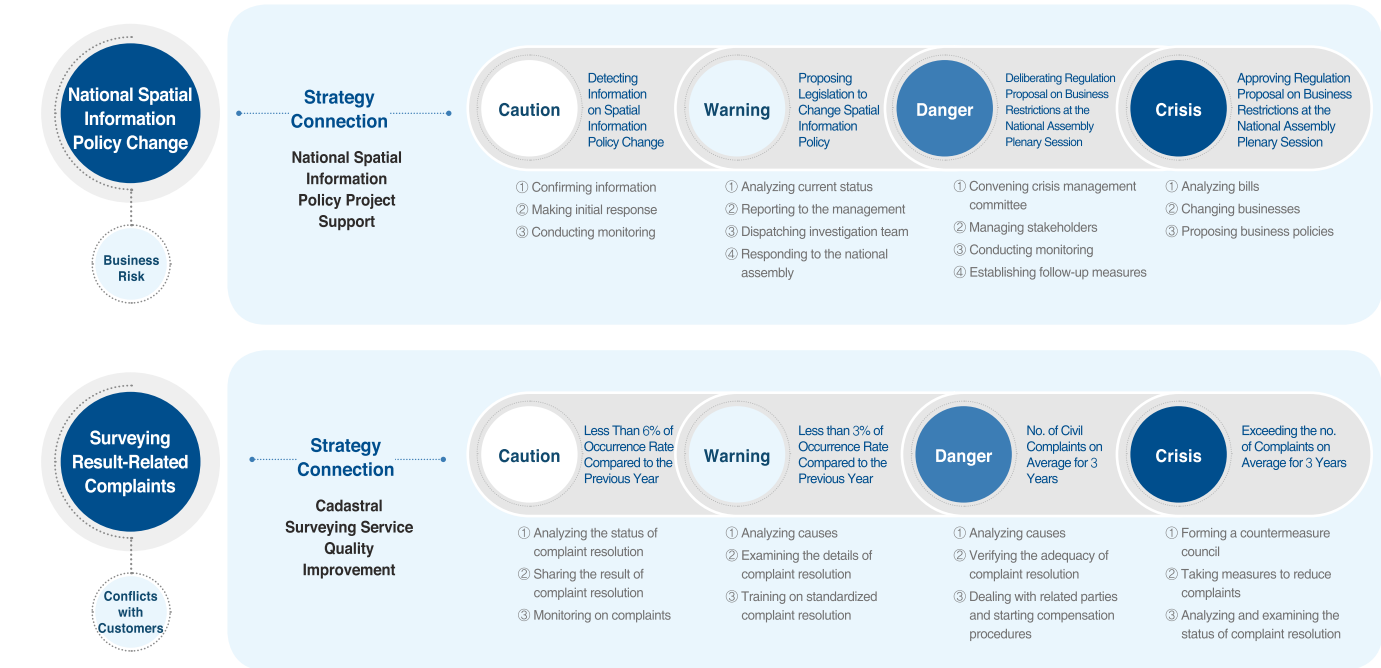
### Non-Financial Risk Management

In addition to the management of financial risks, we identify and manage non-financial risks that may have an impact on our business operations and reputation in the mid-to long-term. A number of potential non-financial risks, such as integrity and ethics, stakeholder communication, customer information security, employee health and safety, and climate change response, were detected and classified by type, and a response system was established. This has laid the foundation of an integrated risk management system for proactive prevention.

### Response to Emerging Risks

LX not only prevents and responds to risks in the economic, social, and environmental fields but also seeks to strategically utilize them in its business operations. Megatrends in the fields of spatial information and cadastral surveying are defined through the analysis of future prospects, and key risk factors and opportunities are identified and reflected in our business strategies and R&D activities.

### Emerging Risk Management Manual





# Information Security

## Enhancement of Information Security

### Information Security Management System

With the development of information and communications technology, the importance of information security has also been increasing. LX has upgraded the information security management system across the company to protect customer information and prevent the leakage of corporate information assets. According to our digitalization strategies, we are expanding the technical and physical infrastructure for information security while strengthening cybersecurity, information security policies, and personal information protection and management system.

The head of the spatial information business division was appointed as the chief information security officer to constantly check the management status of headquarters and each regional headquarters. We are systematically managing the information security system by increasing the staff and the budget, and also enhancing the stability of information security across the company by introducing advanced solutions. As a result, we have maintained the grade of 'Excellence' in the evaluation of public institution security and 'Zero' security accidents.

### Information Security Management System

Goal	Enhancing Public Trust and Ensuring Cyber Security through Reinforcement of Information Security Management System		
Direction	Strengthening Cyber Security Capabilities	Enhancing Information Security Policies	Reinforcing Personal Information Protection & Management System
Task	<ul style="list-style-type: none"><li>Responding to information security issues proactively</li><li>Checking security vulnerabilities in each phase of business</li><li>Building capacity of information security officers</li></ul>	<ul style="list-style-type: none"><li>Improving regulations on information security</li><li>Examining the security of partner companies</li><li>Eliminating vulnerabilities in information security</li></ul>	<ul style="list-style-type: none"><li>Improving personal information protection &amp; management system</li><li>Increasing the management capacity of personal information protection</li><li>Managing and supervising those who handle personal information</li></ul>

### Training on Information Security Capacity Building

Training of Managers		Training Across the Company	
<ul style="list-style-type: none"><li>Information protection</li><li>Network security</li><li>Security policy</li><li>High technology training</li></ul>	60 hours per person	<ul style="list-style-type: none"><li>Off-the-job training</li><li>New employee training</li><li>Cyber training</li></ul>	3,668 persons 282 persons 167 persons

### Improvement of Information Security Expertise

We have developed the expertise of IT personnel to proactively respond to the increasingly sophisticated cyber-hacking threats. In addition to basic training, such as information protection, network, and security policy, we have provided training on the latest technologies including cloud security, infringement response, and OpenStack cloud creation, leading to zero damage from ransomware attacks. Besides, we offer regular training on information security policies, security settings, and cyber crisis management to enhance the security awareness and capabilities across the company. We also provide the employees of partners with training on information security standards and confidentiality to strengthen their security capabilities.

### The Disaster Recovery Center



## LX Cyber Safety Zone

### Reinforcement of Personal Information Protection and Management

Considering the protection of people's rights as a top priority, LX has reinforced its personal information protection and management system. To prevent the leakage of personal information, unnecessary items for information collection have been eliminated, and the collected personal information is completely destroyed upon completion of the work. As a result of conducting inspections of personal information protection activities, specialized training, regular monitoring, and performance evaluation, we had zero personal information leakage in 2017. We were also selected as 'Best Institution' in the evaluation of personal information protection and management by the Ministry of Land, Infrastructure, and Transport for our systematic management efforts and achievements.

### Expansion of Information Security Infrastructure

We have revised the guidelines and manuals for information security operations to strengthen the security compliance of our employees. We are also striving to prevent security incidents by extending the inspection period for partners and conducting a technical inspection that even covers management and physical elements. In order to establish a safe mobile working environment, we have completed the verification of the entire mobile business including N-TOSS and on-site mobile applications and also strengthened the security check on hand-held devices.

### Improvement of Cyber Security Capabilities

Our protective measures against highly sophisticated security threats include the identification of key information security issues, monitoring, and simulation training. We conduct simulations to prevent email hacking and also emergency security checks on information systems and employee computers to have zero ransomware infections. The cycle of information system monitoring was shortened from monthly to weekly, and 76 cases of cyber threats were detected and eliminated to prevent infringement. As a result, we were selected as 'Best Institution,' the highest rating, in the cyber crisis response training organized by NIS. We will proactively respond to information security issues that may become a threat in the future and constantly inspect the security vulnerabilities of information technology businesses to strengthen our cybersecurity capabilities.

### Enhancement of the Disaster Recovery Center

The Disaster Recovery (DR) Center has been upgraded to completely protect spatial information in case of natural disasters or emergencies and to recover from failures in the shortest time. The data replication between the Information Center and the DR Center has been increased to 100% while the storage by more than three times to complete the data security environment. In the event of an emergency, integrated database recovery testing is performed to ensure full recovery in 30 hours. We will continue to protect spatial information related to people's property rights by making multilateral efforts including simulations, technology improvemets, and server expansion.

### Personal Information Management of Public Institutions

4.56▲ compared with other public institutions

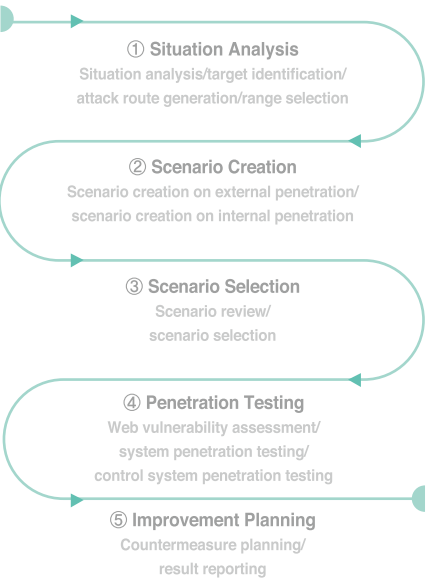
84.61points

### National Intelligence Service

selected as best institution

HighestGrade

### Security Check Process through Penetration Testing





DMA3 LX for Mutual Growth

We will promote sustainable development with members of various backgrounds

Customer Satisfaction with Public Institutions

Excellent



Key Issues

As a member of society, companies conduct business activities in relationships with various stakeholders. Customers used to be considered as someone who simply purchases products and services, but now have become a key partner who we need to provide values and ensure rights for. Supporting employees to maintain a work-life balance and promoting shared growth with partners have become competitive factors. In addition, companies have a social responsibility and duty to make a positive impact on the local community by utilizing their business capabilities beyond profit-seeking activities. Reflecting these changes in the business environment, the government and private investing organizations, including global initiatives such as UN SDGs, DJSI, and ISO26000, conduct a comprehensive business performance evaluation in terms of quality as well as quantity. The Triple Bottom Line (TBL), which is an accounting framework with three parts: social, environmental (or ecological) and financial must be considered equally important in business activities to ensure corporate sustainable development.

Response Strategies

LX has declared customer-oriented management and continuously improved services through active communication with customers. With the Consumer-Centered Management (CCM) certification, a national accreditation granted by the Fair Trade Commission, in our hand, we have continuously promoted innovation across all of our business activities from the consumer's perspective. Besides, we are building a win-win organizational culture where talented people with diverse backgrounds can fully demonstrate their capabilities, and also promoting mutual growth with partners and SMEs through performance-sharing programs and support for overseas expansion. As part of the effort to create high-quality jobs, we are working on the conversion of non-regular workers into full-timers and creation of jobs in relevant industries, while responding to climate change through environmental impact management, including reduction of GHG emissions and resource and energy consumption. We will continue to contribute to the sustainable growth of society by taking the lead in resolving local and social problems with the utilization of our information, technology, and human resources.

No. of Female Managers

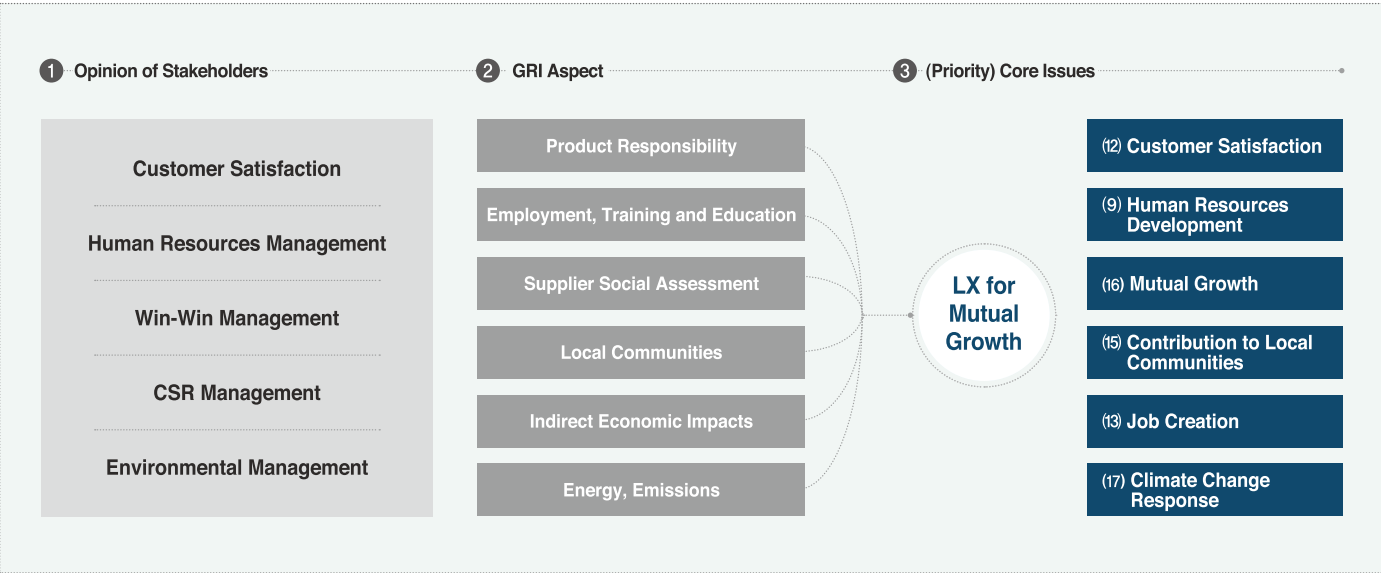
71 persons

Joint Entry into Overseas Markets

KRW 11.45 billion

Creation of Private Sector Jobs

10,238 persons





# Customer Satisfaction

Customer Satisfaction with Public Institutions

2017

Excellent

Customer-Oriented Management

2017

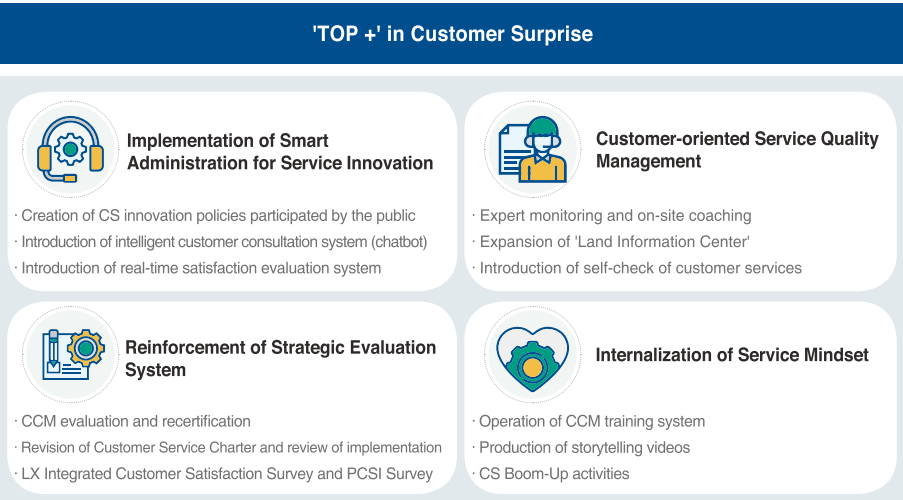
Selected as Best Institution

## Customer-Centered Management

### Customer Satisfaction Strategies

LX is committed to enhancing the public benefit and convenience of its services by establishing Consume Centered Management (CCM) innovation strategies. We strive to ensure that all employees fully understand the Customer Service Charter and the Standard Service Manual and provide high-quality services to meet the expectations of customers. We will provide spatial information and cadastral surveying services in a fast, accurate, and convenient manner by upgrading the customer satisfaction infrastructure based on Voice of the Customer (VOC) and improving the service process.

### Customer Centered Management Strategy



### Improvement of Customer Satisfaction Competency

LX operates a variety of HR training programs on customer service so that employees can master the fundamentals and enhance their expertise. The 'Outreach Capacity Building Programs on CS & Civil Affairs' are provided for all employees to develop a mindset for customer satisfaction and share the standard manual for civil affairs, while intensive training courses, such as CS Academy and CS Level-Up, are offered to customer personnel. Moreover, CS leadership training and CS benchmarking training are conducted by external agencies so that employees can learn about advanced customer services and strengthen their capabilities. Furthermore, a standardized complaint response process and customer service skills are shared to enable employees to apply what they learned to practical work.

### Customer Satisfaction Training Programs

CS vision Sharing Course	CS Leadership Course	CS Academy Course	CS Leve-Up Course
Standardization and enhancement of customer services for all employees	Development of CS leaders	CS capability building for those responsible for reception and surveying	Training of in-house CS instructors at regional headquarters
<ul style="list-style-type: none"><li>CS vision and strategies</li><li>Mindset for customer satisfaction</li><li>Standardized civil complaint response</li></ul>	<ul style="list-style-type: none"><li>Horizontal leadership</li><li>Multiple communication values</li><li>Leader capacity as facilitator</li></ul>	<ul style="list-style-type: none"><li>Better communication skills</li><li>Creation of customer confidence</li><li>Resolution of customer conflicts</li></ul>	<ul style="list-style-type: none"><li>Customized CS capabilities</li><li>CS instructor capabilities</li></ul>

### CCM Recertification



### Consumer-Centered Management Recertification

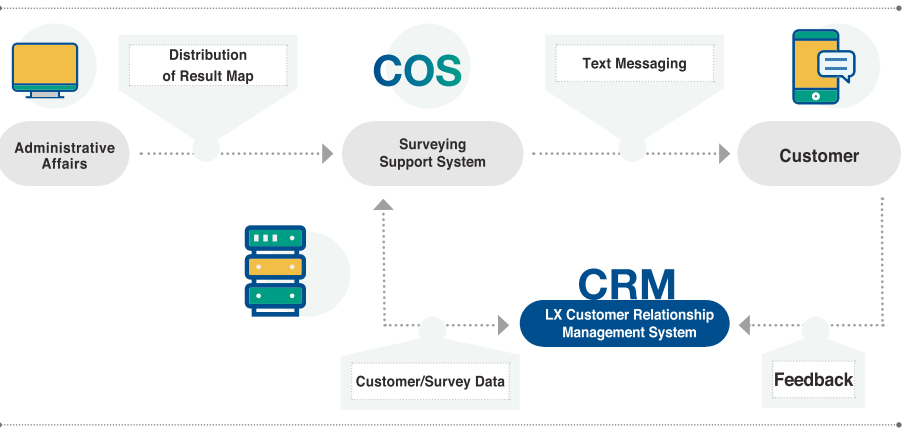
To spread the customer-oriented management culture and strengthen the business competitiveness based on the promotion of customers' rights, LX acquired the Consumer-Centered Management (CCM) certification, granted by Fair Trade Commission, in 2016 for the first time among quasi-government organizations. For CCM recertification, we improved internal and external cooperation systems for customer satisfaction, CS human resources management, customer relationship management system, CCM training management, and CCM manual management.

## LX for Customer Communication

### Integrated VOC Management

LX manages Voice of the Customer (VOC) through the one-stop process from collection, registration, response, handling to post-management. This has improved the accessibility of customers and shortened the time for resolving citizen complaints. To build a system for the integrated management of VOCs for all customer services, such as cadastral survey, cadastral resurvey, and spatial information, we have established a VOC classification system by type. Moreover, we are working hard to meet the needs of customers by creating a real-time customer satisfaction measurement system through mobile. As such, we will not only respond to VOCs in a fast and accurate manner but also provide advanced services that can handle fundamental problems and hidden complaints.

### LX VOC Handling Process



\* LX prevents personal information leakage and abuse by granting users different access rights to the Customer Relationship Management (CRM) System.

### Innovation of Cadastral Survey Service

We are striving to provide customer services in a faster manner by improving the cadastral surveying service process. The current state of daily services is monitored to analyze the intensity of cadastral surveying services in each region, while flexible staffing is promoted to increase work speed and efficiency. Also, unnecessary processes have been eliminated to speed up the entire process, and high-performance survey equipment has been introduced to shorten the survey period.

Work Scope of Fast Call Handling Center

- Consultation on and registration of cadastral survey services
- Analysis of Happy Calls
- Review of post-monitoring on customers
- Post-management of unhappy customers
- VOC analysis (Chatbot response)

**Work Scope of Chatbot System**

Automatic response through ARS, website, and SMS to general inquiries including survey procedures and regulations, contact with the responsible personnel, commissions, survey schedule, result map, receipt, etc.

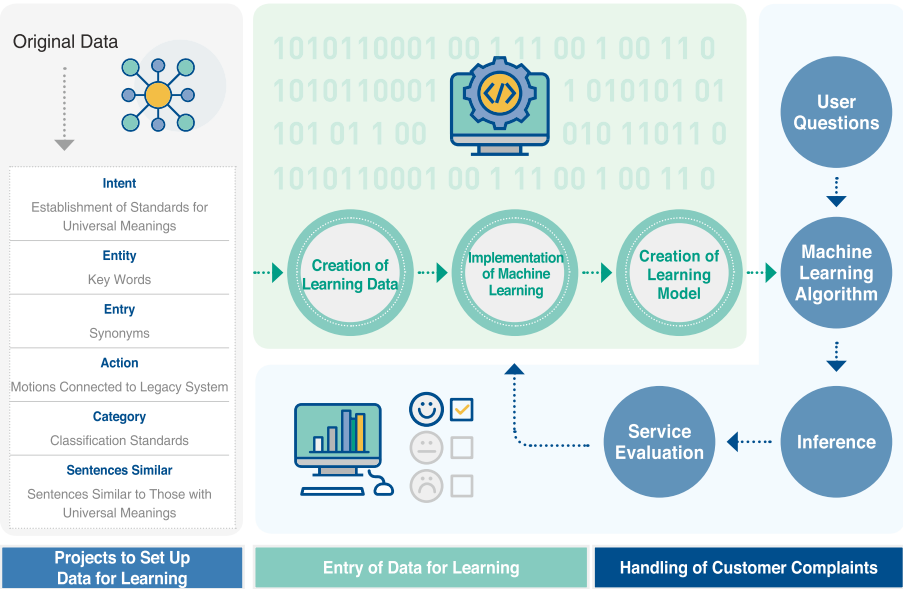
Land Information Center



Introduction of Intelligent Customer Consultation Service

With the increasing number of non-face-to-face customer consultations, consultation efficiency and quality control have become more critical. As part of the effort to improve our service quality, we will introduce an intelligent customer consultation service for those using our public services. To that end, we are establishing the work scope of general consultations received by 'Fast Call Handling Center' and creating scenarios for answers based on inquiries. When the system is completed, and 'Chatbot' is open, 365-day consultation services will be available to enhance customer convenience and satisfaction.

'Chatbot' System



Activation of Customer Satisfaction Council

LX has established partnerships with related organizations and experts to improve CS expertise and resolve citizen complaints. At the 'Customer-Oriented Management Innovation Committee,' pending issues and improvements are shared by regional CS leaders to enhance employee capabilities. Also, the 'VOC Improvement Council' analyzes the VOC handling results to support the standardization of civil complaint resolution. Meanwhile, we have signed an MOU with the Anti-Corruption & Civil Rights Commission to provide legal and administrative support in resolving public complaints through the Ombudsman systems of both parties. We will expand the 'Ombudsman for Resolving Public Complaints' and establish the 'Deliberative Committee on Repeated Public Complaints' to realize people-oriented civil affair services based on collaboration and communication.

Operation of Land Information Center

The 'Land Information Center' is operated to provide young people, potential customers of the future, with job experience opportunities, and to develop their understanding of our business and views on occupations related to spatial information. The Job Experience Center supports career exploration in alignment with the government's free semester system, while the 'Dream Road\_the Ministry of Education's Career Exploration Support Website' allows all the institutions across the country to be registered and certified as an institution for work experience. Besides, we ensure that all young people of this country receive the same experience service through the Day of Invitation of Underprivileged Students.

Human Resources Management

LX Human Resources Development

Talent Management System

The society and stakeholders are paying more attention than before to the role of companies in supporting employee growth and development. LX is striving to enhance employee capabilities from recruitment to post-retirement and to develop human resources which will create new values in the future based on mid-to long-term HR management strategies. We are providing employees with customized training programs that focus on building capacity and developing job skills to enhance expertise in the land and spatial information industry while creating an organizational culture appropriate fair personnel systems and efficient communication are promoted to attract more talented people.

Talent Management System

Goal	Developing Talent Who will Create New Values			
Image of Talent	Talent Who Harmonize	Talent Who Create	Talent Who Communicate	
Direction	Training Experts in Each Field	Providing Customized Training	Creating a Culture of Self-directed Learning	Strengthening the Role of Public Education
Task	· Strengthening OJT · Developing experts in new businesses	· Training employees according to life-cycle stages · Reorganizing curriculum focusing on competency	· Activating operation of learning groups · Expanding cyber education	· Strengthening employment capabilities · Donating expert knowledge and skills

Competency-Based Career Development

LX has established competency-based career development programs for each employee. Individual competencies are evaluated based on self-check, job performance planning, and interviews, and customized training programs for each position and job are provided for competency reinforcement. Also, in-service training and distance education are offered to improve leadership, job skills, and fundamentals of employees, while training courses in various areas including cadastral survey, spatial information, and overseas business are reorganized with a focus on working-level employees to train critical players in the future environment. The score of satisfaction over online education which stood at 84 points in 2016 was raised by 8 points to 92 points in 2017 thanks to continued efforts to improve the career development programs. Furthermore, we will expand the training courses for long-term dispatched workers to nurture next-generation leaders and support them to develop a management mindset and human network.

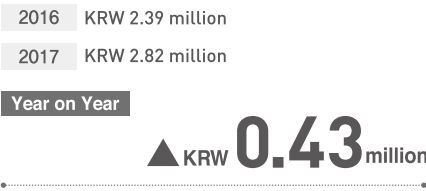
Training of National Spatial Information Specialists

LX is proactively responding to industrial development by producing specialists in the national spatial information industry. We organize special education courses, such as new business planning, data processing, visualization, and spatial information analysis, and operate 'land information specialist course' to develop human resources who will plan and implement new businesses in the spatial information industry. The specialist course is project-oriented to support the immediate implementation of new businesses discovered by the team upon adoption. A number of projects were planned related to regional issues, such as establishment of national disaster response & investigation systems, budgeting for land information businesses, and support for decision-making on urban renewal, and as for the 'mdel for establishing vacant house management system,' we were designated as a responsible organization for commercialization to support government policy.

Competency-Based HRD System



Training Cost Per Employee





Employment Rate of Trainees who Completed the LX Spatial Information Academy

2017  
78%

Certification of 'Best Public Institution in Human Resources Development'

in consecutive  
3 times

Enhancement of New Cadastral Surveying Technologies

We have enhanced the level and quality of field services by reinforcing the area of cadastral surveying technology in the curriculum of spatial information. We have organized training courses for field employees that focus on technical capabilities required for cadastral surveying, such as business support system, field support system, TOSS, SIP, GPS processing, and drone. In addition, improvement plans are made for unreasonable cadastral surveying processes, while work efficiency is enhanced through consulting and training by internal experts. We plan to improve the practicality of training courses by reflecting the crucial technologies of the the 4th industrial revolution, cloud technologies, LX\_Geo Go, cadastral surveying process improvements, and technological trends.

Culture of Self-Directed Learning

We have created a culture of self-directed learning by introducing Flipped Learning, which is a learner-centered approach to self-study. Employees understand learning topics through online lectures and assignments in the pre-learning stage and make presentations and engage in discussion in the actual learning stage so that they can internalize what they learn by themselves. Also, we are enhancing the effectiveness of company-wide training by expanding customized online courses given the lack of educational facilities at district offices across the nation.

Fair Personnel System

Fair Evaluation and Compensation

LX has established a competency and performance-based personnel management system and operated fair personnel procedures with the reflection of employee opinions. A blind evaluation that excludes academic achievements and personal connections is conducted at the time of promotion examination. Personnel transfer is made in a fair and transparent manner based on usual personnel standards. Also, a reward and punishment system has been firmly established to grant additional points to commendations and strengthen disciplinary measures. The 'Make My Own Choice' mobile application was internally developed to increase fairness in the allocation of new employees, and high school graduates are given equal opportunities for promotion same as college graduates to realize a non-discriminatory personnel system.

Welfare Programs without Discrimination

We provide regular and non-regular workers with the same welfare benefits, such as school expenses, physical check-ups, and selective welfare programs, to ensure equal employment rights without discrimination. Non-regular workers are also offered opportunities for in-service training and distance education so that they can be converted into full-timers through capability development.

Support for Lifelong Education

At LX, career and life planning programs are provided to the soon-to-be-retired to support their success in later life. In 2017, a total of 87 persons participated in 3 programs that support self-assessment for career exploration and post-retirement environmental analysis.

LX, Best Workplace for Employees

Realization of Gender Equality

LX ensures compensation and promotion without discrimination between men and women. The employment goals and promotion goals for gender equality are set to provide all employees with equal opportunities for growth from employment, career development to promotion. At LX, females are actively hired to meet the target of gender equality employment (over 20%), while more than one female employee is allocated to each department at headquarters where they can develop capabilities required for promotion to manager. Moreover, many female-specific training courses, such as female leader training course, female employee capacity development course, and female talent academy, are provided by lifecycle stages. As a result, female employees accounted for 22% of recruits in 2017, and the number of recruits whose careers were interrupted has doubled. The proportion of female managers over team leaders has also increased to 5.4%, and the first female manager of high rank (Grade 1) was produced.

Improvement of Work System

LX strives to reduce overtime and long hours of work by improving the way we work with the 'Work Diet' campaign. We have abolished or streamlined unnecessary business processes, forms, document printing, and regular reporting that have been customary for years, and motivated employees to participate in the campaign by sharing examples of voluntary innovations throughout the company. As a result, the administrative processing time was reduced by 14 hours per month.

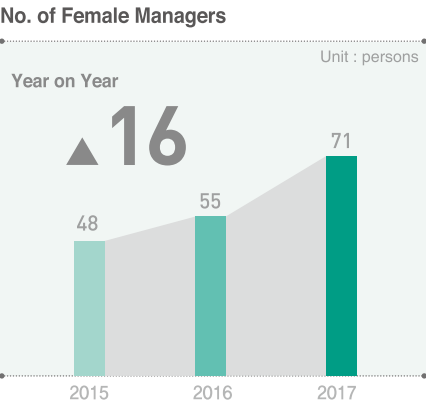
In addition, the flexible working arrangements have been improved based on employee opinions, and actively promoted by reflecting the application results in department evaluations. For the first time among public institutions, we have introduced the 'Day with Family,' allowing employees to leave earlier than usual by using flexible working arrangements. With managers taking the lead, the number of participants has grown by 4 times with a higher level of satisfaction.

Promotion of Work-Life Balance

LX is committed to creating a pleasant workplace by innovating the organizational culture for work-life balance. Since 2012, we have maintained the Family-friendly Certification by Ministry of Gender Equality and Family and operated a variety of family-friendly programs in the aspects of maternity protection, family-friendliness, leisure support, and health promotion. In particular, automatic childcare leave system and paternity leave system were introduced, and as a result, the utilization rate of paternal leave went up to 14.3%. In this way, we will continue to support employees to improve their quality of life and commitment to work through work-life balance.

Family-Friendly Programs for Work-Life Balance

Maternity Protection	Family-Friendliness	Leisure Support	Health Promotion
 <ul style="list-style-type: none"><li>· Workplace Nursery</li><li>· Childcare Leave</li><li>· Automatic Childcare Leave</li><li>· Shorter Working Hours</li></ul>	 <ul style="list-style-type: none"><li>· Leave on Time</li><li>· Saving of Holidays</li><li>· LX Family Camp</li></ul>	 <ul style="list-style-type: none"><li>· Club</li><li>· Condominium and Resort</li><li>· Selective Welfare Programs</li></ul>	 <ul style="list-style-type: none"><li>· Physical Check-up</li><li>· Group Insurance</li><li>· Mental Health Program</li></ul>



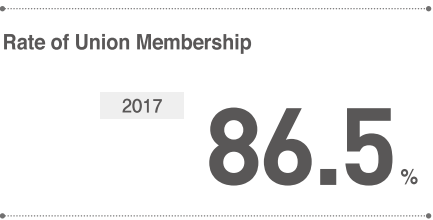
No. of Employees Using Flexible Working Arrangements



Rate of Paternal Leave



Labor Relations for Cooperation



Creative Labor Relations Strategy

LX has established a set of labor relations strategies with the goal of 'building a labor-management culture for the future based on creative labor relations.' We have formed a consensus on the establishment of labor relations for sustainable growth, based on trust, and to fulfill social responsibilities, and built a culture of cooperation through mutual trust and communication. All LX employees are allowed to join labor unions and form unions or other representative organizations by Article 5 of the Trade Union and Labor Relations Adjustment Act and Article 3 of the Collective Agreement. Employees are free to leave unions according to their wishes, and the rate of union membership is 86.5% as of December 31, 2017. Based on labor-management cooperation, we contributed to improving work-life balance and employee welfare by introducing various programs, such as employee protection, half day off, and childcare leave, in 2017.

Labor Relations Strategic Plan

Goal	Building a Labor-Management Culture for the Future Based on Creative Labor relations		
Direction	Establishing Rational Labor Relations for Sustainable Growth	Establishing Cooperative Labor Relations for Mutual Trust	Establishing Labor Relations to Fulfill Social Responsibilities
Task	<ul style="list-style-type: none"><li>· Complying with principles for rational labor relations</li><li>· Building capacity for labor relations management</li><li>· Laying the foundation for joint decision-making</li></ul>	<ul style="list-style-type: none"><li>· Resolving grievances and improving the working environment</li><li>· Enhancing communication to form a consensus</li><li>· Preventing conflicts based on mutual trust</li></ul>	<ul style="list-style-type: none"><li>· Conducting social contribution activities</li><li>· Promoting work-life balance</li><li>· Ensuring a secure workplace</li></ul>

Labor-Management Communication and Harmony

LX has a variety of communication channels to establish a consensus and prevent conflicts between labor and management. The Grievance Resolution Committee is operated to deal with employee grievances while 'Outreach Labor Relations Meeting' is held to lead the improvement of working conditions. The Joint Labor-Management Forum, consisting of 20 members from labor and management, respectively, is held to discuss critical issues in depth, while training on new field managers is conducted to prevent labor conflicts on the spot. Besides, we have many programs to promote labor-management harmony, such as experience-based healing program and labor-management partnership training.

Labor-Management Communication Channel

Offline	Interactive	Top Down	Bottom Up
	Joint labor-Management Council	Enlarged Executive Meeting	Chin Chin Land
	Labor-Management Meeting	On-site Communication with the Head of Headquarters	Regional Labor Meeting
	Labor-Management Meeting for Mutual Benefits	Visit by Standing Auditor	
Online	Video Conference CoP		
	CoP		
	Suggestion Bank		

Direction of Occupational Safety and Health Management

Ensuring a Safe workplace	<ul style="list-style-type: none"><li>· Protecting customer safety</li><li>· Ensuring internal and external employee safety</li></ul>
Strengthening disaster management and response capabilities	<ul style="list-style-type: none"><li>· Performing the role of disaster management agency</li><li>· Improving training on disaster and safety management</li></ul>
Contributing to promoting public safety	<ul style="list-style-type: none"><li>· Promoting public safety by utilizing spatial information</li><li>· Operating the workplace civil defense forces</li></ul>

Occupational Safety and Health Infrastructure

Occupational Safety and Health Management System

LX has put a high priority on employee safety and built various safety infrastructure to maintain a healthy and pleasant working environment. A systematic safety training program and response system have been established to prevent accidents by identifying potential risks that may arise during fieldwork and to create a safe workplace. The Crisis Management Committee was formed with the CEO as chairperson, and disaster and safety & health personnel were arranged to promptly respond to various emergencies and accidents. Also, we contribute to people's safety and health by performing our missions and roles of disaster management through the provision of disaster information utilizing spatial information technologies and collaboration with external agencies.

Creation of Safe Workplace

To prevent safety accidents that may occur at surveying sites, customer safety manuals for each work process are shared and applied on the site. Before surveying, we informed customers of risk factors and safety measures, and provided 982 teams with safety supplies in order to prevent accidents during surveying. We conduct occupational safety and health education for all employees to prevent disasters and diseases and also strengthen management standards at construction sites of suppliers to prevent industrial accidents. Thanks to these efforts, we achieved 'zero customer safety accidents' at cadastral surveying sites and 'zero occupational safety accidents' at construction sites of suppliers.

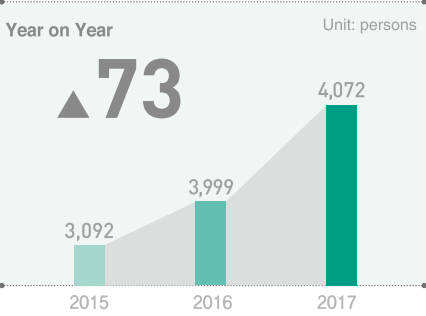
Capacity Building for Disaster Response

LX has established a joint disaster management system in cooperation with external agencies to respond quickly to disasters. Our disaster notification system has been reinforced and the network of emergency contacts has been updated to share disaster situations rapidly. We have concluded an agreement with the Jeonbuk Regional Emergency Preparedness Agency to share disaster information and established a mutual support system. In addition, we monitor disaster situations in the Jeonbuk Provincial Office for Disaster and Safety Management to check disaster situations as often as possible. In 2017, we conducted the 'Training for Safe Korea' for the first time among public institutions, and successfully completed joint training with related organizations in preparation for combined disasters such as earthquakes and fires.

Enhancement of Public Safety Based on Spatial Information

LX's spatial information technologies are used in various ways to enhance public safety. To be specific, we quickly surveyed areas affected by disasters, such as landslide, wildfire, hail, earthquake, and flood, to ensure public safety. We contributed to the successful hosting of the FIFA U-20 World Cup with the LX Drone Team to prevent terrorism and received a plaque of appreciation from the Army and Jeonju City for its service. The LX Land Notification e-App was developed and distributed to the public for free to provide information on emergency facilities and shelters. The LX Workplace Civil Defense Forces is operated and dispatched in case of national disasters or emergencies, and we received a commendation from the Minister of the Interior and Safety in 2017 for our contribution to the development of civil defense business. We will continue to fulfill our duties and responsibilities as a disaster management agency by leveraging our technologies and personnel.

No. of Those Who Completed Cyber Safety and Health Training





# Win-Win Management

## Innovation Awards for SMEs and MEs - Mutual Growth

5 Consecutive Years

Grand Prize

## Mutual Growth Assessment Rating

2017

Excellent

## Innovation Awards for SMEs and MEs



# Mutual Growth

## Mutual Growth Strategy

In a business environment where various industries are converged with each other and global competition is intensifying, mutual growth with partner companies has become not an option but a necessity. LX promotes performance-sharing tasks with the reflection of partner opinions and creates a competitive industry ecosystem while supporting the capacity building of SMEs. According to the mid-to long-term roadmap for mutual growth, LX is establishing a sustainable win-win relationship with its partners and SMEs by providing them with customized support, growing them into mid-sized companies, and helping them enter the global market.

## Mutual Growth Strategy

Goal	Building a Cooperative Partnership and Leading Sustainable Mutual Growth		
Direction	Providing Customized Support for SMEs	Establishing a Support Ladder for Private Enterprises	Securing Competitiveness for Mutual Cooperation
Task	· Supporting innovative start-ups	· Growing them into solid mid-sized companies · Supporting socially disadvantaged businesses	· Promoting performance-sharing system · Expanding entry into the global market

## Promotion of Performance Sharing System

LX operates a performance sharing system that identifies tasks and concludes pre-contracts with its partners. The performance-sharing tasks include service level agreement, technology transfer, and operating system improvement, and those related to e-audit system operation were additionally identified in 2017. Also, the task registration process was streamlined to encourage the active participation of partner companies. We will continue to discover performance-sharing tasks through joint efforts with partners including Performance Sharing Academy and Performance Sharing Deliberation Committee to establish fair trade order and a win-win culture.

## Interactive Communication with SMEs

Various communication channels have been established to promote mutual growth activities with the opinions of SME partners reflected. Quarterly working-level meetings are held to collect complaints and requirements of SME partners and a survey on the perception of mutual growth is conducted to assess their level of satisfaction. The SME Support Center for Overseas Expansion is operated to resolve any difficulties that may arise during business expansion. The opinions of partner companies are reflected in improvement activities, and feedback on improvement results is provided to realize interactive communication. As a consequence of such endeavors, LX was acclaimed as an excellent institution in mutual growth by diverse institutions including the prize in SME innovation in mutual growth at 'Innovation Awards for SMEs and MEs'organized by the Ministry of Commerce, Industry and Energy for five consecutive years. In 2017, we recorded 'Excellence'in the rating for mutual growth assessment.

## Win-Win Supporters Startup Fund

Cumulative  
KRW 1.28 billion

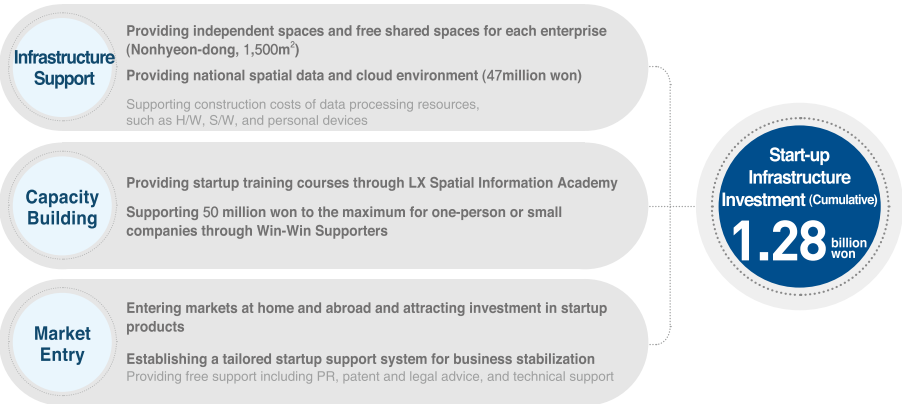
## Private Share of Cadastral Confirmation Surveying

Year on Year  
2016 61.9%  
2017 84.2%  
▲ 22.3 %

## Creation of Innovative Entrepreneurial Ecosystem

LX has established and operated the 'Geo-Dream Center' to support entrepreneurship in the field of spatial information. We provide the basic infrastructure needed for start-ups, such as cloud environment, spatial information data, and independent and shared spaces, and offer start-up training courses through the LX Spatial Information Academy. For the first time among quasi-governmental organizations, LX has introduced the 'Win-Win Supporters Program' to provide start-up funds and one-stop incubation programs for qualified pre-entrepreneurs and small businesses. From successful commercialization, market entry, investment attraction to global advancement, we have established a tailored support system to increase the probability of success and sustainability of start-up companies. Starting from Seoul Center, we will expand support to Sejong Center, Jeonbuk Center, and regional base centers to contribute to the creation of an entrepreneurial ecosystem in the spatial information industry.

## Support of Geo-Dream Center



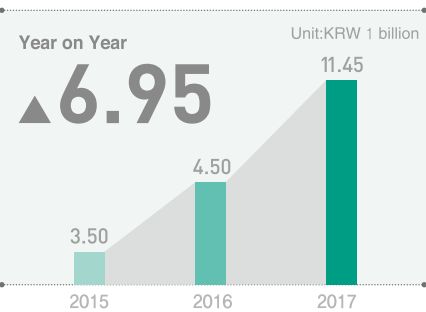
## Support for SMEs

Hope Fund	R&D	Education & Training	Oversease Expansion
· Reducing loan interest by 3.45% · Supporting fund worth 6 billion won	· R&D/technical support for spatial information technologies : 16 cases, 3 billion won	· 555 trainees at Spatial Information Academy · 188 companies at Training Consortium	· Information provision for overseas expansion: 355 cases · Joint overseas expansion: 11.45 billion won

## Development of Growth Ladder for SMEs

LX provides customized support programs for SMEs so that they can grow into solid medium-sized companies. First, the 'Hope Fund' was created to secure the liquidity of SMEs and LX's capacity, and infrastructure are utilized to provide R&D and technical support for crucial spatial information technologies. Second, a global center was established to help their advance into the global market: providing information on overseas expansion and opportunities for marketing and joint entry. Based on these activities, we have received the 'SME Innovation Award' in mutual growth for five consecutive years by the Ministry of Trade, Industry and Energy, and was selected as 'Best Institution in Creation of Mutual Growth Culture and Private-Public Cooperation' for our efforts for mutual cooperation.

## Joint Overseas Business



No. of Member Companies of Spatial Information Academy Training Consortium

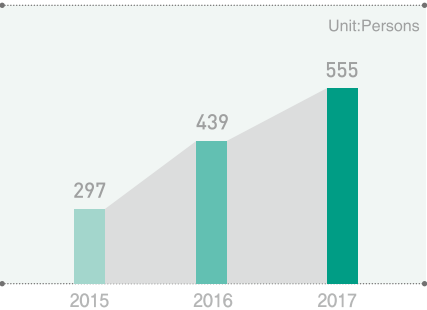
2016 149 companies

2017 188 companies

Year on Year

▲ 39 companies

No. of Trainees at Spatial Information Academy



Procurement of SME Products

2016 KRW 41.71 billion

2017 KRW 56.76 billion

Year on Year

▲ KRW 15.05 billion

Expansion of Spatial Information Academy

We provide industry-specific training for employees of SMEs which lack education infrastructure. In line with the Human Resources Development Project of the Ministry of Land, Infrastructure and Transport and the National Human Resources Development Consortium of the Ministry of Employment and Labor, we fully fund training costs for employees and job seekers in the spatial information industry. Each year, training courses are organized based on the needs of trainees, and industry employees are invited to give a practical lecture on spatial data. In 2017, a total of 555 persons completed specialized training on spatial information. Since opening in 2014, the average employment rate has reached over 90%, contributing to the development of creative human resources and the creation of jobs for the youth.

Fair Trade Culture

Transparent Contract System

LX has established a transparent contract system to ensure fairness in contractor selection and encourage the participation of local or socially disadvantaged businesses. The standard disclosure system was introduced to enhance the transparency of bidding and contracting processes while the procurement system was improved to provide real-time bidding information to small businesses. In 2017, a 'subcontractor protection system' was developed to prevent delayed payments of construction costs and wages. All contract information is regularly disclosed through the website, mobile apps, and management information disclosure system to maintain transparency in transactions.

Good Procurement Culture

LX has been expanding procurement of products manufactured by SMEs or socially disadvantaged businesses following government recommendations. Public procurement loans and advance payments are used to support the liquidity of SMEs, and public procurement conferences and staff workshops are held to promote market expansion. As a result of efforts to improve the internal awareness of public procurement and to ease the barriers to entry of socially disadvantaged businesses, the procurement rate in 2017 has increased by 39% compared to the previous year.

Job Creation

Open Recruitment

As part of the effort to promote open recruitment, we operate a job performance-based recruitment process. Since the introduction of the National Competency Standards (NCS)-based recruitment system in 2013, we have conducted job relevance-based competency evaluation. Also, we carry out blind recruitment to ensure fairness and objectivity in the evaluation. In 2017, a total of 176 recruits joined LX, and the diversity of educational backgrounds has increased to 63.4% due to open recruitment.

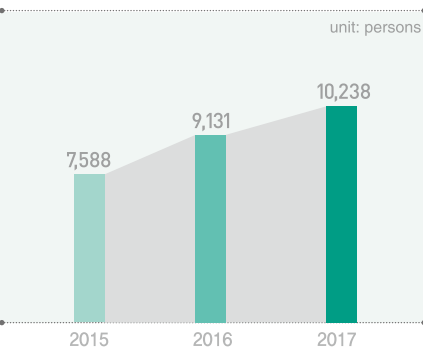
No. of New Recruits in 2017

176 persons

No. of Long-Term on-the-Job Trainees in 2017

159 persons

Creation of Private Sector Jobs



Employment Diversity

LX has expanded employment opportunities by operating social equity employment programs for vulnerable groups, such as women, high school graduates, local talent, and people with disabilities. The employment of local talent and the disabled has exceeded the quota recommended by the government, and the gender-equal employment has also surpassed the target of 20% for female recruitment through preferential policies for recruiting career-interrupted women.

Promotion of Youth Employment

We have introduced the Industry Professional Practice (IPP) program, which is part of a work-learning linkage system developed by the Ministry of Employment and Labor, to develop practical human resources. We encourage college students to apply what they learned in the classroom on the site and get systematically trained in practical affairs. In 2017, we signed agreements with 23 colleges to expand the IPP program and made efforts to promote youth employment in line with the employment support system.




Improvement of Working Conditions of Temporary Employees

We maintain the proportion of non-regular employees below 5% of the total in compliance with the Guidelines for Public Institution Personnel Management. Non-regular workers are encouraged to develop capabilities and provided with additional points for their work experience so that they can be converted into full-time workers. In addition, we have reduced the wage gap between non-regular and regular employees by applying a higher rate of wage increase to the former than the latter and indirect employment is limited to simple labor jobs. Furthermore, we apply the equal compensation system with regular employees by preemptively providing treatment and working conditions catered to relevant laws and the guideline.

Creation of Private Sector Jobs

LX has established a private sector job creation system in line with its key businesses. In the area of cadastral surveying, private participation has been expanded in cadastral confirmation surveying and cadastral resurveying. In the field of spatial information business, we have created jobs by establishing the Geo-Dream Center and supporting joint overseas expansion. Also, customized jobs for local residents were created, such as Hope Fund and facility management, leading to a 12% rise in job creation from the previous year. With the goal of increasing private sector jobs by four times the capacity by 2022, we will strengthen the core competencies of each business and create quality and sustainable jobs.

Creation of private sector jobs by business

National Spatial Information	Cadastral Surveying	Management Support
		
<ul style="list-style-type: none"><li>· System development, outsourcing of specialized skills</li><li>· Spatial information R&amp;D, platform building</li><li>· Overseas business consortium, support for startups</li></ul>	<ul style="list-style-type: none"><li>· Cadastral control points management system, new investment</li><li>· Joint cadastral surveying project</li><li>· Outsourcing of non-core businesses</li></ul>	<ul style="list-style-type: none"><li>· Development of customized human resources</li><li>· Creation of regional win-win funds</li><li>· Outsourcing of service business to local residents</li></ul>



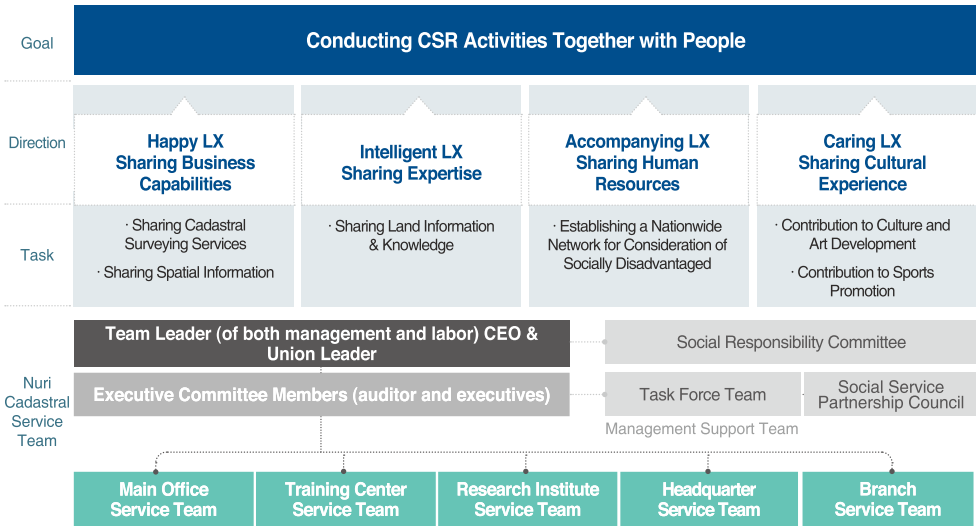
# CSR Management

## LX-Style CSR Management

### CSR Management Strategy

As a public institution, LX promotes a number of social contribution activities in alignment with its key businesses to fulfill its social responsibilities. In 2007, we created a volunteer corps with the participation of all employees in order to carry out more systematic CSR activities. In 2013, we launched a CSR brand 'Nuri 知(Knowledge)' to further strengthen our social contribution activities. 'Nuri 知(Knowledge)' is composed of 'Happy LX' that shares business capabilities, 'Intelligent LX' that shares expertise, 'Accompanying LX' that shares human resources, and 'Caring LX' that shares cultural experiences. We will continue to perform creative CSR activities that give hope to the people.

#### CSR Strategy



### Mutual CSR Partnership

LX is building a mutual CSR partnership to spread the culture of sharing. The CSR management organization consists of the head of joint labor-management volunteer corps and the CSR committee, and operates 'Nuri Cadastral Service Team' which is composed of members from affiliated institutions, regional headquarters, and district offices. In addition, employees were encouraged to participate in new voluntary organizations, such as volunteer groups, talent donation groups, and transport correspondents. Externally, we have established a 'CSR Partner Council' with a government, related organizations, and non-profit organizations to increase the effect and influence of our CSR activities.

## 'Happy LX' Sharing Business Capabilities

LX conducts a number of social contribution activities by utilizing its business characteristics and capabilities. We are expanding sharing activities by leveraging our key businesses: providing free surveying services and reducing service charges for the socially vulnerable in order to imbue people with happiness, and offering useful spatial information to the public through the LX Land Notification e-App, thereby contributing to benefits of people and safety enhancement.



### Sharing Cadastral Surveying Services for the Socially Vulnerable

We provide free surveying services for low-incomers and vulnerable groups. The group of beneficiaries now even includes the elderly living alone, multicultural families, and Korean War veterans, so that more socially vulnerable people enjoy the benefits of housing security. We have reduced cadastral surveying service charges for those in areas affected by natural disasters, such as forest fires, snowstorms, typhoons, and earthquakes, and those in rural areas. In 2017, we provided one-stop recovery surveying service for disaster areas, such as Pohang and Chungcheongbuk-do, which were affected by earthquakes and floods, respectively, to relieve the burden of residents.

### Sharing Spatial Information for Public Security

We are actively utilizing spatial information to create an environment that ensures security to the people. We make a prompt response to the occurrence of diasters or accidents: investigating changes in the location of buildings and lands when an earthquake occurs and constructing a database of flood damage. In order to provide accurate location information in case of an emergency, the national point number is verified, and evacuation information is sent through the LX Land Notification e-APP. In recent years, the use of drones has increased the accuracy of disaster area surveying, counter-terrorism support, and traffic information provision.

### Sharing Spatial Information for Public Benefits

LX provides spatial information services for the public to improve the lives of the people. On the national spatial information portal, users including ordinary citizens, pre-founders, and companies can easily get highly reliable spatial information. We offer services that are helpful in our daily life, such as road name address map and virtual reality content related to real estate and travel, and the utilization has more than doubled from the previous year.

#### Spatial Information Sharing Results

Establishing Database of Flooding Marks	Verifying Point Numbers in Case of Distress	Utilizing Evacuation Information from LX Land Notification e-App
2,137 districts	11,220 points	26,744 cases
Utilizing The National Spatial Information Portal	Utilizing Road Name Address Map	Those Who Watched Virtual Reality Content
10.27 million cases	146,055 cases	1,905 persons

## 'Intelligent LX' Sharing Expertise

We are carrying out knowledge sharing activities by utilizing our technology and expertise in the fields of cadastral surveying and spatial information. Through 'Nuri 知(Knowledge)' activities for talent sharing, we are giving hope to teenagers, young people, and local talent who wish to become experts in land information.

### Support for Youth Career Exploration

In tandem with the government's free semester system, LX provides education programs for teenagers to help them explore aptitudes and future careers. The experiential programs are based on state-of-the-art technologies, such as total station training, drone training, disaster recovery simulation, and virtual reality experience, so that students can enhance their understanding of land information. In August 2017, we opened the 'National Land Information Center,' at Korea Job World, which attracted more than 1,000 visitors who wanted to have experience with land information.

#### LX's CSR Brand 'Nuri 知(Knowledge)'



'Nuri 知(Knowledge),' combining 'Nuri,' a pure Korean word that means national land, and 知, a Chinese character for 'knowledge,' stands for LX's warm heart and will to fulfill its social responsibility by giving hope to the society with the utilization of national land information.

Development of Human Resources for Future Land Information

As part of talent donation, LX employees are teaching a class at local schools and youth facilities where students can experience new technologies related to land information. At the same time, we are promoting the 'Young Meister' and local talent scholarship programs to develop high-tech human resources who can meet industry needs. Moreover, we support the infrastructure required for training technical personnel, such as surveying equipment, computer equipment, and professional training materials.

'Accompanying LX' Sharing Human Resources

By utilizing its nationwide network, LX identifies welfare blind spots in each region and conducts sharing activities. Regarding our sharing efforts and activities, participated by more than 4,000 employees of 12 regional headquarters and 169 district offices, we received commendation and plaque of appreciation from the government and Korea Mecenat Association.

Community-based CSR Activities

According to the characteristics and circumstances of each region, we are carrying out sharing activities with residents. Our employees serve as transport correspondents at traffic broadcasting systems, and also provide free legal advice about land to those in remote areas. During the year-end and New Year holidays, we conducted relay social contribution activities to deliver necessities and heating fuels to the underprivileged, while contributing to the revitalization of farming and fishing villages through sisterhood relationship of one company and one community. Furthermore, we are expanding these sharing activities and creating synergies by forming a CSR Council with public institutions and related organizations in each region.

'Caring LX' Sharing Cultural Experience

LX considers the promotion of culture, arts, and sports as a crucial factor of individual and national competitiveness. In this regard, we are displaying our strength and potential in the field of culture and art and contributing to the development of sports industry through sharing activities of Culture & Art Nuri 知(Knowledge) and Sports Promotion Nuri 知(Knowledge).

Visiting Ballet Story

We provide various cultural and arts experience opportunities for the underprivileged and local tenants. 'Visiting Ballet Story' is one of our representative cultural arts programs that has continued with the Korea National Ballet since 2011. We visit culturally disadvantaged areas up and down the country for free ballet performances and experiences. In 2017, ballerina Kang Sue-jin delivered a special lecture as a mentor to give participants an unforgettable experience.

Base Expansion for Sports Promotion

LX strives to expand the base of national sports and promote less popular sports events. In 2006, we started the LX Cycling Team, and have supported the growth of member athletes. Also, we are raising the public

awareness of cycling through bicycle riding events, bicycle classrooms, and donation of cycling equipment. The achievements of these efforts include the LX Cycling Team's qualification for the 2020 Olympic Games in Tokyo. Besides, we are engaged in sports development and base expansion through various activities, such as PR support and donation for the National Sports Festival and National Sports Games for the Disabled in 2017, safety support for FIFA U-20 World Cup Korea, and invitation of the socially underprivileged.

Support for PyeongChang Winter Olympic Games

We supported the successful hosting of the 2018 PyeongChang Winter Olympic Games by utilizing our technology and expertise. The Pyeongchang Olympic support team was organized and high-tech equipment, such as electronic plane tables, GPS equipment, 3D ground-based lidar, and drones, was employed to carry out surveying of traffic network and major stadium sites and buildings. It has contributed to establishing a transportation network and securing the place for the Olympic Games, and also facilitating the construction and completion of major stadiums.

No. of People Who Watched 'Visiting Ballet Story' Performance

2017 2,626 persons

No. of Cooperation Network for Social Contribution

2017 285



- 1 LX Heart-to-Heart Concert with Local Residents
- 2 One-Company One-Village Exchange Program
- 3 Visiting Ballet Class
- 4 Kimchi Sharing Event



# Environmental Management

## Eco-friendly LX

### Environmental Management System

LX has established an environmental management system to meet society's demand for corporate environmental responsibilities and to implement relevant government policies. The 'Energy Conservation Committee,' a decision-making body related to environmental management, was formed to check the status of environmental management and to confirm compliance with environmental laws and regulations. The committee, which is held twice a year, is working to minimize negative environmental impacts by examining the goals and achievements of each district office, such as reducing resource and energy consumption and greenhouse gas emissions. In addition, we are enhancing the environmental management system by forming an organization responsible for environmental conservation activities by district offices.

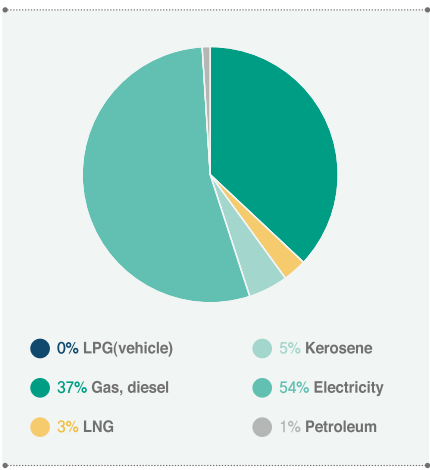
### Environmental Management Organization



### Big Data-Based Environmental Impact Analysis

Based on our spatial information and cadastral surveying business capabilities, we conduct a big data-based environmental impact analysis. The analysis of data collected by related organizations, such as Korea Meteorological Administration, Ministry of Land, Infrastructures, and Transport, and Ministry of Trade, Industry, and Energy enables us to check the current state of domestic environmental problems related to air, soil, and ecology and analyze the causes of pollution. Based on analysis results, we are publishing research data on the causes of environmental problems and mid-to long-term solutions and seeking ways to achieve sustainable growth with the environment.

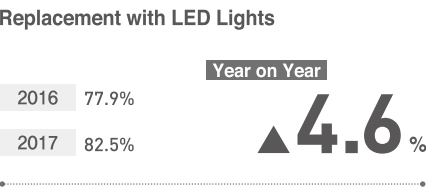
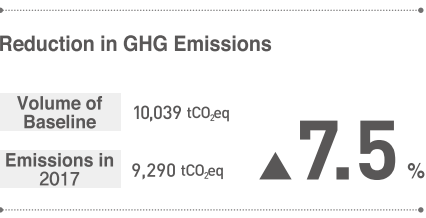
Analysis of GHG Emissions



## Climate Change Response and Energy Efficiency

### GHG Emission Reduction

LX complies with the 'Public Sector GHG & Energy Target Management System.' We have established a mid-to long-term roadmap to reduce GHG emissions and set a target for cutting GHG emissions by 20% by 2020 and 30% by 2030. To that end, a task force was formed, and the employees in charge were trained on the implementation targets, raising awareness of GHG reduction. Moreover, enterprise-wide efforts are being made to reduce GHG emissions and energy consumption, such as renting eco-friendly vehicles and replacing lights with LED. As a result, we achieved a 7.5% reduction in GHG emissions in 2017 (year-on-year improvement). We will strive to accomplish the mid-to long-term targets by developing various measures for emission reduction.



### Mid-to long-term Roadmap for GHG Emissions Reduction

2018	2020	2030
Short-Term	Mid-to Long-Term	Long-Term
<ul style="list-style-type: none"><li>Exceeding the GHG Reduction Target (over 60 points)</li><li>Exceeding the LED Replacement Target (Over 80%)</li><li>Introducing Eco-friendly Vehicles for Business Use</li></ul>	<ul style="list-style-type: none"><li>Reducing GHG Emissions by 20%</li><li>Replacing Lights with LED for 100%</li><li>Promoting the use of eco-Friendly Vehicles for Business Use</li></ul>	<ul style="list-style-type: none"><li>Cutting GHG Emissions by 30%</li><li>Introducing Compulsory Use of New and Renewable Energy Sources When Establishing New District Offices</li></ul>

### Energy Conservation

We manage energy usage and promote various energy saving activities. The head office where designed as an eco-friendly low-carbon building has been certified as a green and intelligent building with the 1st grade of energy efficiency level. We have introduced solar and geothermal systems, used high-efficiency energy equipment, and implemented energy saving campaigns in which all employees participate. In the coming years, we will continue to monitor environmental data and improve energy-related systems to promote effective energy saving activities.

### Local Environmental Conservation Activities

Each district office is carrying out activities to preserve and improve their local environment. We strive to raise the awareness of environmental protection of residents through environmental preservation activities, and also to improve the local environment through environmental clean-ups. In particular, during our business trip for cadastral surveying, we act as an environmental watchdog to take the lead in local environmental conservation. In order to encourage these activities, a mandatory 'Environmental Mileage' program will be introduced to promote environmental clean-ups and monitoring activities.

### Compliance with Environmental Laws

In promoting land-based business activities, we comply with various environmental laws and regulations and strive to prevent any violations of them. We regularly monitor the status of environmental management, such as greenhouse gas, energy, water intake, and waste, and improve access to environmental information through transparent information disclosure. Thanks to these efforts, no violations of environmental laws and regulations were reported in 2017.

# Appendix

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Performance Summary

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GRI Content Index

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UN Global Compact / UN SDGs

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Third Party's Assurance Statement

## Performance Summary

### Economy

K-IFRS Summary Statement of Financial Position

		Unit	2015	2016	2017
Asstes	Current Assets	KRW 1 million	120,623	240,200	226,151
	Non-Current Assets	KRW 1 million	307,041	378,095	409,738
	Total Assets	KRW 1 million	427,664	618,295	635,889
Liabilities	Current Liabilities	KRW 1 million	85,417	126,444	97,375
	Non-Current Liabilities	KRW 1 million	73,882	95,763	100,952
	Total Liabilities	KRW 1 million	159,299	222,207	198,327
Capital	Capital	KRW 1 million	10,000	10,000	10,000
	Retained Earnings	KRW 1 million	258,365	386,087	427,562
	Total Shareholder's Equity	KRW 1 million	268,365	396,087	437,562

K-IFRS Summary Statement of Comprehensive Income

	Unit	2015	2016	2017
Operating Revenue	KRW 1 million	472,887	507,843	549,081
Operating Expenses(Variable)	KRW 1 million	363,663	384,411	396,807
Operating Expenses(Fixed)	KRW 1 million	62,626	72,854	76,373
Operating Profit	KRW 1 million	46,599	50,578	75,901
Other Revenues	KRW 1 million	3,909	6,697	4,732
Other Expenses	KRW 1 million	13,751	13,494	13,512
Other Profit	KRW 1 million	1,843	148,543	544
Finance Profit	KRW 1 million	2,133	3,024	3,382
Finance Costs	KRW 1 million	-	1	164
Net income Before Income Tax	KRW 1 million	40,733	195,347	70,883
Income Tax Expenses	KRW 1 million	9,348	47,193	17,060
Net Income for The Year	KRW 1 million	31,385	148,154	53,823
Other Comprehensive Income	KRW 1 million	1,126	-20,431	-12,348
Total Comprehensive Income	KRW 1 million	32,511	127,723	41,475



Key Financial Indicators

		Unit	2015	2016	2017
Stability	Current Ratio	%	142.22	189.97	232.25
	Debt Ratio	%	59.36	56.1	45.33
	Capital Ratio	%	62.75	64.06	68.81
Profitability	Ratio of Operating Profit to Net Sales	%	9.85	9.96	13.82
	Ratio of Net Income to Net Sales	%	6.64	29.17	9.80
	Return on Assets	%	7.72	28.33	8.58
	Operating Profit Growth Rate	%	16.33	11.15	4.29
Growth Potentials	Net Sales Growth Rate	%	8.78	7.39	8.12
	Operating Profit Growth Rate	%	87.56	8.54	50.07
	Net Profit Growth Rate	%	187.45	372.06	-63.67
	Total Assets Growth Rate	%	11.08	44.57	2.85
	Asset Turnover Ratio	%	1.16	0.97	0.88
Productivity	Gross Calue Added to Total Assets or Productivity of Capital	%	100.64	114.36	94.89
	Gross Value Added to Proerty, Plant and Equipment	%	161.45	213.81	186.58
	Unit Labor Cost Growth Rate	%	4.66	4.08	-3.02
	Value-Added Productivity Per Employee	%	8.7	41.77	-2.25

R&D Investments

	Unit	2015	2016	2017
R&D Expenses	KRW 1 million	6,945	17,535	6,805
Ratio of R&D Expenses to Sales	%	1.5	3.5	1.4

Registration of Intellectual Property Rights

	Unit	2015	2016	2017
Patents(Unility Models)	ea.	12	13	23
Trademark Rights	ea.	45	55	55
Copyrights (Program Registration)	ea.	327	372	381
Total	ea.	384	440	459

Environment

Energy Consumption and Energy Intensity

	Unit	2015	2016	2017	Remarks
Diesel	TJ	46.32	46.95	49.64	
Gas (LNG)	TJ	17.39	6.79	7.27	
Gas (LPG)	TJ	0.14	0.13	1.01	
White Kersosene	TJ	7.36	7.54	6.6	
Gasoline	TJ	2.05	1.98	1.68	
Power	TJ	80.96	92.11	98.97	
Other	TJ	1.95	2.51	2.37	
Total	TJ	156.17	158.01	167.54	Company-Wide
Energy Consumption Intensity	TJ/KRW 100 million	0.03	0.03	0.03	Based on Sales

Water Usage by Source

	Unit	2015	2016	2017	Remarks
Tap Water	Ton	79,950	74,814	76,990	Company-Wide

Greenhouse Gas Emission and Greenhouse Gas Intensity

	Unit	2015	2016	2017	Remarks
Direct Greenhouse Gas Emissions	tCO <sub>2</sub> e	4,788	4,466	4,860	
Indirect Greenhouse Gas Emissions	tCO <sub>2</sub> e	4,194	4,818	5,127	
Total	tCO <sub>2</sub> e	8,982	9,284	9,987	Company-Wide
Direct Greenhouse Gas Emissions Intensity	tCO <sub>2</sub> e/ KRW 100 million	1.01	0.88	0.89	Based on Sales
Indirect Greenhouse Gas Emissions Intensity	tCO <sub>2</sub> e/ KRW 100 million	0.89	0.95	0.93	Based on Sales

Wasate Generation by Type

	Unit	2015	2016	2017	Remarks
General Waste	Ton	76	77	86	
Specified Waste	Ton	-	-	-	
Total	Ton	76	77	86	Headquarters and Regional Headquarters

Society

Employees

		Unit	2015	2016	2017	Remarks
Employment Type	Incumbent	persons	3,908	4,115	4,344	
	Executives	persons	5	5	5	
	Regular Workers	persons	3,574	3,844	3,897	
	Unlimited Contract Workers	persons	120	109	334	
	Non-Regular Workers	persons	209	157	25	
	Headquarters	persons	220	225	272	
	Education Institute	persons	31	34	33	
	Research Institute	persons	57	55	57	
	Regional Headquarters	persons	428	462	385	
	District Office	persons	3,172	3,339	3,184	
Gender	Female Employees	persons	403	438	467	
	Female Managers	persons	48	55	71	Regular Workers
Minorities	People with Disabilities	persons	125	125	124	Level 4 or Above of Regular Workers
	Veterans	persons	133	135	140	

The Ratio of Average Annual Salary Compared to the Highest Annual Salary

		Unit	2015	2016	2017
Total Annual Salary of the Highest Salaried Recipient(A)	KRW 1 million		102.4	103.1	106.1
Average Salary Based on Total Employee(B)	KRW 1 million		66.4	67.5	69.9
Ratio(A/B)	%		154	153	152

The Ratio of Average Annual Salary Increase Rate Compared to the Highest Annual Salary

		Unit	2015	2016	2017
The Salary Increase Rate of the Highest Salary Recipient(A)	%		3.33	0.68	2.83
Average Salary Increase Rate(B)	%		3.75	1.66	3.56
Ratio(A/B)	%		0.89	0.41	0.79

Retirement Pension System

		Unit	2015	2016	2017
Retirement Pension Amount(DB)	KRW 1 million		135,651	132,301	137,732
Retirement Pension Amount(DC)	KRW 1 million		15,408	46,499	47,288
Total Retirement Pension Amount	KRW 1 million		151,059	178,800	185,020

Number of Subscribers(DB)	persons	3,971	3,899	3,902
Number of Subscribers(DC)	persons	186	502	509
Total Number of Subscribers	persons	4,157	4,401	4,411

The Ratio of Wages of New Employees to Statutory Minimum Wages (per hour)

		Unit	2015	2016	2017
Statutory Minimum Wages	KRW		6,030	6,470	7,530
Wages of New Employees(male)	KRW		12,350	14,940	15,412
Wages of New Employees(Female)	KRW		12,350	14,940	15,412
Ratio(Male)	%		205	231	205
Ratio(Female)	%		205	231	205

Number of New Hires and Displaced Workers (Retirees)

			Unit	2015	2016	2017
Total Number of Employees (Permanent)			persons	3,574	3,844	3,897
Number of New Hires (Regular Workers)	Gender	Male	persons	6	143	137
		Female	persons	2	40	39
	Age	Under 30	persons	-	124	126
		From 30 to 50	persons	7	57	48
		Over 50	persons	1	2	2
	Local Employees	Non-metropolitan local employees	persons	1	90	81
		Metropolitan local employees	persons	7	93	95
	Total		persons	8	183	176
Ratio of Newly Employed Workers			%	0.2	4.8	4.5
Number of Displaced Workers (Retirees)			persons	2	8	9
Ratio of Displaced Workers (Retirees)			%	0.1	0.2	0.2

Use of Parental Leave

		Unit	2015	2016	2017
Parental Leave Users	Male	persons	4	4	5
	Female	persons	38	34	30
	Total	persons	42	38	35
2016-2017 Persons Who Used Parental Leave (person)			2016-2017 Persons Who Were Still Employed 6months After the End of Parental Leave (person)	Percentage of Persons Who Return to Work Agter Parental Leave(%)	
After Parental Leave, Return Status			56	53	95%



Current Status of Flexible Work Arrangements

		Unit	2015	2016	2017
Part-time work		persons	10	11	9
Flexible Work Arrangements	Flex-Time	persons	529	941	2,603
	Flexible Working Hours	persons	94	184	2,163
Remote Work Arrangements	Smart Work	persons	13	6	15

Rate of Total Workforce Represented in Joint Labor-Management Safety and Health Committees

		Unit	2015	2016	2017
Number of Participants in the Safety and Health Committee		persons	14	14	14
Proportion of Participants in the Safety and Health Committee		%	100	100	100

Proportion of Work-related Disasters

		Unit	2015	2016	2017
Injury Incidence Rate		%	0.1	0.1	0.1
Number of Fatalities		persons	0	0	0

Proportion of Employees Subject to Performance Evaluation

		Unit	2015	2016	2017
Total Number of Employees		persons	3,908	4,115	4,344
Number of Evaluated Employees		persons	3,908	4,115	4,344
Proportion of Performance Evaluation		%	100	100	100

Security Guard Human Right Education

		Unit	2015	2016	2017
Total Number of Security Guard		persons	3	3	6
Number of Security Guard Educated in Human Right		persons	3	3	6
Ratio of Security Guard Educated in Human Right		%	100	100	100

Average Education Time per Employee

		Unit	2015	2016	2017
Total Number of Employees(Permanent)		persons	3,574	3,844	3,897
Total Education Time		hour	464,823	465,094	471,761
Education time Per Person		hour	130	121	121

The Ratio of the Employee Diversity (by Category)

		Unit	2015	2016	2017
Gender	Male	%	88.7	88.6	81.8
	Female	%	11.3	11.4	18.2
Age	Under 30	%	4.5	7.0	6.1
	From 30 to 50	%	67.7	62.8	57.4
	Over 50	%	27.8	30.2	36.5

The Ratio of the Basic Salary and Remuneration Female Workers to those of Male Workers (by Type of Worker)

		Unit	2015	2016	2017
Executives	The Ratio of the Basic Salary of Females to that Males	%	100	100	100
	The Ratio of the Total Remuneration of Females to that Males	%	100	100	100
Employees	The Ratio of the Basic Salary of Females to That Males	%	91	91	91
	The Ratio of the Total Remuneration of Females To That Males	%	91	91	91

Amount of Local Product Purchase

		Unit	2015	2016	2017
Total Purchase Amount*		KRW 1 million	50,835	50,493	60,440
SMEs		KRW 1 million	40,450	41,710	56,766
Technology Development		KRW 1 million	529	851	2,269
Enterprises of Females		KRW 1 million	4,663	4,936	7,793
Social Enterprises		KRW 1 million	1,152	360	743
People with Severe Disabilities		KRW 1 million	407	445	525
Self-Support Village for Disabled Veterans		KRW 1 million	41	24	62

\*Total Purchase Amount: Individual Expenses Are Overlapped.

Social Contribution Expenses

		Unit	2015	2016	2017
Disbursement Method	Social Contribution Operating Expenses, etc. (Indirect Cost)	KRW	-	-	-
	Donations, etc.(direct cost)	KRW	271,932,880	209,163,985	1,112,885,900
Disbursement type	Cash	KRW	228,309,000	149,298,591	1,055,962,000
	In-kind	KRW	43,623,880	59,865,394	56,923,900
Total		KRW	271,932,880	209,163,985	1,112,885,900

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## UN Global Compact

LX joined the UN Global Compact (UNGC) which prescribes social responsibilities of global companies in 2007, and declared its commitment for sincerely complying with 10 principles in four items of human rights, labor, environment and anti-corruption.



Category	Principle	Contents
Human Rights	Principle 1.	Businesses should support and respect the protection of internationally proclaimed human rights; and
	Principle 2.	make sure that they are not complicit in human rights abuses.
Labour	Principle 3.	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
	Principle 4.	the elimination of all forms of forced and compulsory labour;
	Principle 5.	the effective abolition of child labour; and
	Principle 6.	the elimination of discrimination in respect of employment and occupation.
Environment	Principle 7.	Businesses should support a precautionary approach to environmental challenges;
	Principle 8.	undertake initiatives to promote greater environmental responsibility; and
	Principle 9.	encourage the development and diffusion of environmentally friendly technologies.
Anti-corruption	Principle 10.	Businesses should work against corruption in all its forms, including extortion and bribery.

## UN SDGs

LX contributes to achieving SDGs by aligning the UN Sustainable Development Goals (UN SDGs) with LX vision on social values in a bid to join the efforts of the international community to eradicate all sorts of poverty and ease inequality.



Third Party's Assurance Statement

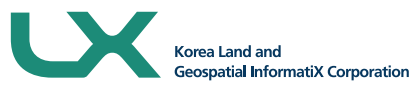
To the Readers of LX Sustainability Report 2018:

Foreword	Korea Management Registrar Inc. (hereinafter 'KMR') has been requested by of Korea Land and Geospatial Informatix Corporation (hereinafter 'LX') to verify the contents of its Sustainability Report 2018 (hereinafter 'the Report'). LX is responsible for the collection and presentation of information included in the Report. KMR's responsibility is to carry out assurance engagement on specific data and information in the assurance scope stipulated below.	
Scope and Standard	<div>LX describes its efforts and achievements of the corporate social responsibility activities in the Report. KMR performed a Type 2, moderate level of assurance using AA1000AS (2008) as an assurance standard. KMR's assurance team(hereinafter 'the team') evaluated the adherence to Principles of Inclusivity, Materiality and Responsiveness, and the reliability of the selected GRI Standards indices as below, where professional judgment of the team was exercised as materiality criteria.</div> <div><div><div>► GRI Standards Reporting Principles</div><div>► Universal Standards</div><div>► Topic Specific Standards</div></div><div><div>-Management approach of following Topic Specific Standards</div><div>-Economic Performance: 201-1, 201-3</div><div>-Market Presence: 202-1</div><div>-Indirect Economic Impacts: 203-1, 203-2</div><div>-Procurement Practices: 204-1</div><div>-Anti-Corruption: 205-1, 205-2, 205-3</div><div>-Anti-Competitive Behavior: 206-1</div><div>-Energy: 302-1, 302-3, 302-4, 302-5</div><div>-Water: 303-1</div><div>-Emissions: 305-1, 305-2, 305-4, 305-5, 305-6, 305-7</div><div>-Effluents and Waste: 306-1, 306-2, 306-3, 306-4</div><div>-Environmental Compliance: 307-1</div><div>-Employment: 401-1, 401-2, 401-3</div></div><div><div>-Occupational Health and Safety: 403-1, 403-2, 403-4</div><div>-Training and Education: 404-1, 404-2, 404-3</div><div>-Diversity and Equal Opportunity: 405-1, 405-2</div><div>-Non-Discrimination: 406-1</div><div>-Security Practices: 410-1</div><div>-Rights of Indigenous Peoples: 411-1</div><div>-Human Rights Assessment: 412-2</div><div>-Local Communities: 413-1, 413-2</div><div>-Supplier Social Assessment: 414-1, 414-2</div><div>-Customer Health and Safety: 416-1, 416-2</div><div>-Marketing and Labeling: 417-2, 417-3</div><div>-Customer Privacy: 418-1</div><div>-Socioeconomic Compliance: 419-1</div></div></div> <div>This Report excludes a data sand information of joint corporate, contractor etc. which is outside of the organization, i.e. LX, among report boundaries.</div>	
Our Approach	<div>In order to verify the contents of the Report within an agreed scope of assurance in accordance with the assurance standard, the team has carried out an assurance engagement as follows:</div> <div><div>► Reviewed overall report</div><div>► Reviewed materiality test process and methodology</div><div>► Reviewed sustainability management strategies and targets</div><div>► Reviewed stakeholder engagement activities</div><div>► Interviewed people in charge of preparing the Report</div></div>	

Our Conclusion	<div>Based on the results we have obtained from material reviews and interviews, we had several discussions with LX 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 stipulated below. Nothing has come to our attention that causes us to believe that the data included in the verification scope are not presented appropriately.</div> <div><div>► Inclusivity</div><div>Inclusivity is the participation of stakeholders in developing and achieving an accountable and strategic response to sustainability.</div><div>LX 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 LX left out during this procedure.</div></div> <div><div>► Materiality</div><div>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.</div><div>LX 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.</div></div> <div><div>► Responsiveness</div><div>Responsiveness is an organization's response to stakeholder issues that affect its sustainability performance and is realized through decisions, actions, and performance, as well as communication with stakeholders.</div><div>The assurance team could not find any evidence that LX's counter measures to critical stakeholder issues were inappropriately recorded in the Report.</div></div> <div>We could not find any evidence the Report was not prepared in accordance with the 'Core Option' of GRI standards.</div>
Recommendation for Improvement	<div>We hope the Report is actively used as a communication tool for stakeholders and recommendation for improvements.</div> <div><div>► Strengthening stakeholder inclusiveness</div><div>LX can be highly appreciated for building differentiated communication channels by using characteristics of stakeholders to categorize them into relationship-based, mutually growing, cooperative, and participatory stakeholders. The company is advised to clearly define individual stakeholders' characteristics and organically report reasonable expectations of each group and the organization's responses and results in the future.</div></div>
Our Independence	<div>With the exception of providing third party assurance services, KMR is not involved in any other LX's business operations that are aimed at making profit in order to avoid any conflicts of interest and to maintain independence.</div> <div><div>Jan, 23rd, 2019</div><div><div><div>kmR</div><div><div>AA1000</div><div>Licensed Assurance Provider</div><div>000-129</div></div></div><div><div>E. J. Hwang</div></div></div></div>







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