



FUTURING SMART ENERGY

Opening the Future of Smart Energy

About This Report

Overview

LSIS has been publishing an annual sustainability report since 2015 in order to share with stakeholders its economic, environmental and social performance. In this fourth report, our progress and achievements on sustainable management in 2017 is presented in a balanced and transparent manner. This report will serve as a means for communication with our stakeholders and allow us to grow together.

Reporting period

This report is based primarily on data for January 1 to December 31, 2017, but the results for the first quarter of 2018 are included for some contents.

Reporting scope

This report provides key information from the materiality assessment, mainly covering domestic business sites but also some overseas sites where relevant.

Reporting standards

This report is in accordance with the GRI Standards Core and the UNGC Index.

Assurance

For the credibility of this report, third-party verification was conducted by Korea Management Registrar.

Inquiries

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Cover Story

The cover design of this report represents LSIS as a leader in power solutions and automation heading into the future with smart integration and convergence solutions. The simple lines and mission icons symbolize LSIS pioneering the future of smart energy.

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Safety and Environment Management



Customer Satisfaction Management



Shared Growth with Suppliers



Local Community Contribution



Employees



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2017 HIGHLIGHT



JANUARY

← Selected as one of the Top 100 Global Innovators by Clarivate Analytics for six consecutive years

LSIS was ranked among the Top 100 Global Innovators by Clarivate Analytics (the former Thomson Reuters Intellectual Property & Science business) for six years in a row. Only four companies besides LSIS were selected in the energy category, an indicator of the global competitiveness of LSIS in energy-related intellectual property.

MARCH

→ Commercialized cast resin transformers with the best seismic performance in Korea

LSIS launched Susol, a cast resin transformer onto the market. It demonstrates the highest seismic-resistant performance in Korea, withstanding earthquakes up to a magnitude of 8.0 on the Richter scale. In its design, the stress (strain) on transformer fixtures has been significantly improved to meet the Uniform Building Code (Zone 4).



JUNE

← Acknowledged as a 'Korea's Best Enterprise' for ten consecutive years

In recognition of its R&D investment in smart energy, power solutions, and automation, as well as for its contribution to securing a new growth engine focusing on overseas markets, LSIS has been selected as a 'Korea's Best Enterprise' for ten years in a row.



SEPTEMBER

← Won a bid to build an 18 MW Hanamizuki solar power plant in Ishikawa Prefecture, Japan

LSIS was selected as the final bidder for a KRW 46 billion (JPY 4.55 billion) project to construct and operate a Hanamizuki photovoltaic plant in Ishikawa Prefecture, Japan. This 18 MW plant to be built on an area of 300,000m² by March 2019 will supply electric power to 5,000 households for 20 years



← Awarded the Industry, Trade, and Energy Minister's Prize for Strategic Trade CP

LSIS won the Industry, Trade, and Energy Minister's Prize for the Strategic Trade Compliance Program (CP) at the 2017 Trade and Security Day. The prize is given to companies that implement, promote, and contribute to the government's strategic trade and export control system. Since the company introduced its CP in January 2014, a team dedicated to strategic trade has been created and related rules have been set as company standards.



OCTOBER

↑ **Completed construction of the 28 MW Chitose Solar Plant in Hokkaido, Japan**

LSIS completed the largest solar power plant in Hokkaido, Japan. Capable of supplying power to more than 10,000 households, it is the nation's first photovoltaic plant integrated with an ESS (Energy Storage System).

NOVEMBER

→ **LSIS Modular Scalable PCS won the Power Electronics Manufactures of the Year Award**

At the regular general meeting of the Korean Institute of Power Electronics in 2017, our Modular Scalable PCS received the Power Electronics Manufactures of the Year Award. Since this platform-based 2 MW PCS exclusively developed by LSIS features modularized components, the product size can be reduced by more than 30% while maintaining a steady level of performance. In addition, the ESS smart operating system helps minimize system downtime.



NOVEMBER

← **Received citation from the Minister of SMEs and Startups in the supplier association category**

At the 2017 Corporate Partnership Week organized by the KCCP, LSIS won a citation from the Minister of SMEs and Startups in recognition of its contribution to promoting supplier associations as a communication channel.

CEO Message



Distinguished stakeholders,

I would like to take this opportunity to express my gratitude for your continued interest and support.

In 2017, LSIS was able to achieve meaningful results through its 'smart and simple management based on minimalism,' even in the face of difficult conditions in environments both inside and outside of the company. In recognition of promoting efficiency through smart energy, including ESS, EMS, HVDC, and smart factory technologies, and of strengthening R&D efforts to develop and commercialize core technology, LSIS has been named on the 'Korea's Best Enterprise' in the electricity and cable industry for the last ten years. In addition, the company has been ranked among the Top 100 Global Innovators since 2011.

A difficult business environment is expected in 2018 due to a resurgence of protectionism worldwide and the decline in large-scale investment in Korea. However, we will be focusing on the following as we lay a foundation for continued sustainable growth.

First, we will increase our presence in global markets.

Global markets are the key to achieving sustainable growth. In this regard, we will accomplish growth through focusing resources on target countries and changing growth paradigm.

Second, we will secure technological competitiveness through digital transformations.

The fourth industrial revolution is being fueled by new technologies, including IoT, cloud computing, big data, and machine learning. It is not only shaking the foundations of existing markets, but also establishing new ones. In this regard, we will accelerate our efforts to devise a new business portfolio by developing a product lineup of digital devices and solutions using ICT and big data.

Third, we will streamline our profit structure.

The profit structure will be stabilized with optimized product portfolio and financial risk management.

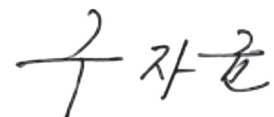
Distinguished stakeholders,

Our efforts at sustainability management will be sustained in order to fulfill our corporate social responsibility, communicate with stakeholders, and build trust based on a positive corporate culture. By doing so, we will be able to spearhead the future of smart energy and enhance the value both in our lives and society.

In this journey, we look forward to your unwavering support and encouragement.

Thank you.

Chairman & CEO Ja-Kyun Koo





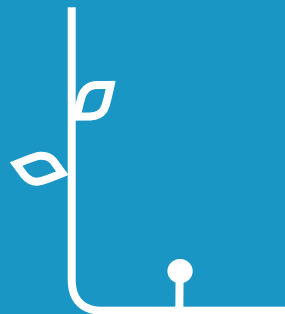
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About LSIS

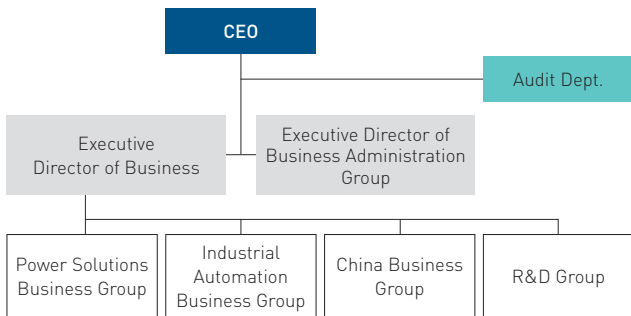
LSIS, a leader in industrial electric power and automation solutions businesses in Korea since 1974, is pioneering the future of smart energy with quality products based on its technical prowess.



Corporate Profile

Since its establishment in 1974, LSIS has grown into the leading industrial electric power and automation solutions company in Korea. LSIS was separated from the LG Group and re-launched itself as the LS Group in 2003, and, in 2005, it was renamed to LSIS. In 2015, the company declared Futuring Smart Energy, a new mission to take another leap forward. With its quality products and technological prowess, LSIS's efforts will continue to pioneer the future of smart energy.

Organization chart



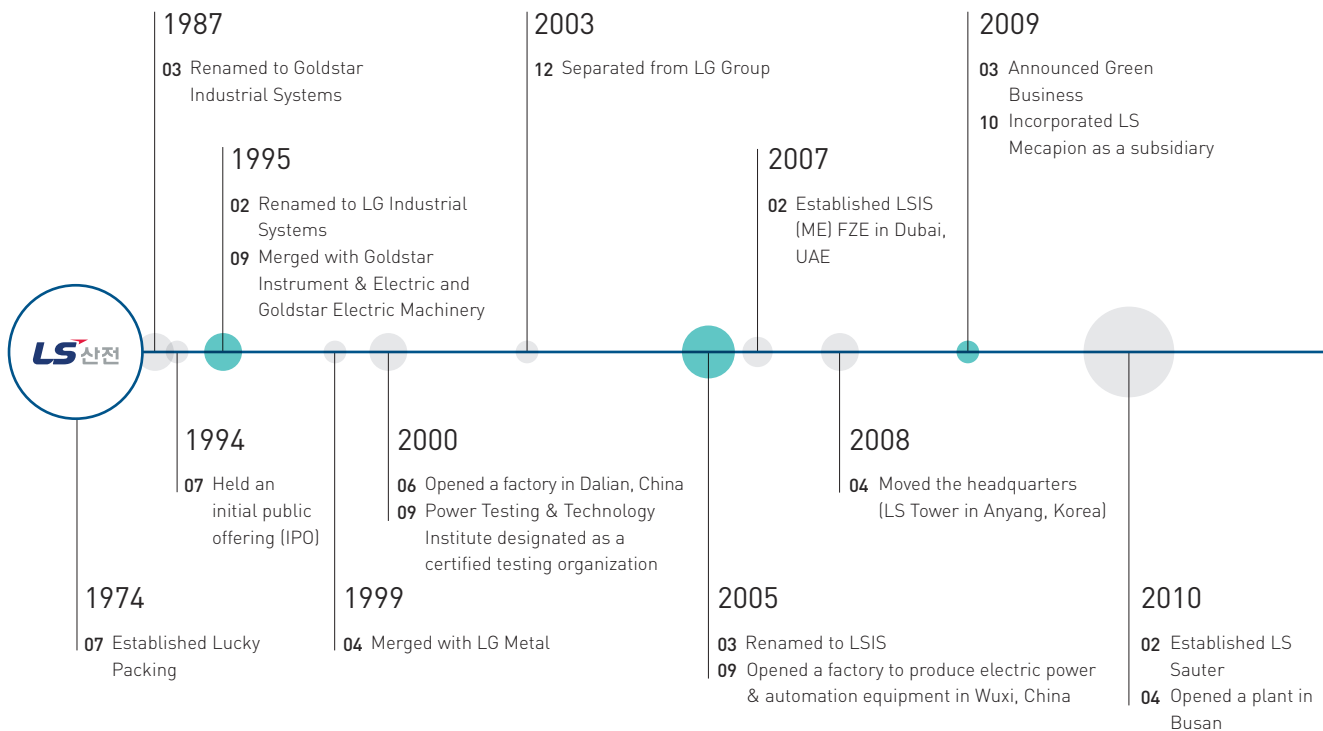
Profile

| | |
|---------------|--|
| Company name | LSIS Co., Ltd |
| Established | July 24, 1974 |
| CEO | Chairman Ja-Kyun Koo, Vice President Yong-sang Park, Vice President Ki-won Nam |
| Head office | LS Tower, 127, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Korea |
| Employees | 3,402 |
| Credit rating | AA- (corporate bond), A1 (CP) (rated by Korea Investors Service) |

Financial data summary (consolidated basis / KRW billion)

| | |
|-------------------|---------|
| Sales | 2,343.7 |
| Operating income | 158.4 |
| Total assets | 2,255.8 |
| Total liabilities | 1,107.7 |
| Total equity | 1,148.1 |

Company history



Vision and strategy

Management Philosophy

Greater value together!



Mission



Opening the Future of Smart Energy

Vision



Strategy



Core Value



Collaboration



Execution



Creativity



Integrity

2011

- 10 Opened a HVDC factory in Busan
- 11 Selected as 500 Fastest Growing Companies by the Fortune Korea

2013

- 05 Signed a contract for HVDC technology transfer and manufacturing with KAPES and GE
- 11 Received the USD 500 Million Export Tower
- 11 Awarded the grand prize in quality sector at the 39th National Quality Management Competition

2014

- 05 Won the Gold Tower Order of Industrial Service Merit on the 49th Invention Day
- 07 Celebrated the 40th anniversary of the foundation of LSIS

2012

- 05 Opened an EV relay factory in Cheongju
- 12 Established a subsidiary in the US

2016

- 03 The R&D Campus building earned Korea's first BEMS certification
- 09 Received Presidential Citation for outstanding achievement for FTA
- 09 Became the first company in Korea in implementing ESS for emergency power supply in the R&D Campus

2017

- 01 Selected as the Top 100 Global Innovators for six consecutive years
- 03 Listed on the Top 100 Companies in terms of patent application in Europe
- 06 Acknowledged as the Korea's Best Enterprise for ten consecutive years
- 09 Awarded the Industry, Trade and Energy Minister's Prize in Strategic Trade CP
- 11 Received citation of the Minister of SMEs and Startups in the supplier association category

Corporate Governance

Board of directors (BOD)

LSIS maintains a board of directors to ensure a transparent and rational decision-making process. It consists of three inside directors and three outside directors in accordance with governance rules, including the Articles of Association and the Board of Directors Regulations. Within the BOD, two subcommittees, the Audit Committee and Outside Director Nomination Committee, are operated.

Members of the board

| Type | Name | Position | Career background | Date of appointment |
|-----------------------|----------------|---|---|------------------------------|
| Inside directors (3) | Koo Ja-Kyun | Chairman of the board, Chairman & CEO | <ul style="list-style-type: none"> (Present) Chairman & CEO, LSIS Professor of Graduate School of International and Public Affairs, Korea University | 2017.03.17 (reappointed) |
| | Park Yong-Sang | Vice President & CEO | <ul style="list-style-type: none"> (Present) Senior Executive Vice President, LSIS Director of China Business Group, LSIS | 2017.03.17 (newly appointed) |
| | Nam Ki-won | Vice President & CEO | <ul style="list-style-type: none"> (Present) Senior Executive Vice President, LSIS Vice President & CEO, LS Metal | 2018.03.20 (newly appointed) |
| Outside directors (3) | Moon Seong-Il | Outside director / Audit Committee member | <ul style="list-style-type: none"> (Present) Professor of electrical engineering, Seoul National University Director, Korea Smart Grid Institute | 2017.03.17 (newly appointed) |
| | Kim Ho-Won | Outside director / Audit Committee member | <ul style="list-style-type: none"> (Present) Member, Presidential Council on Intellectual Property (Former) Commissioner, Korean Intellectual Property Office | 2017.03.17 (newly appointed) |
| | Lee Won-chang | Outside director / Audit Committee member | <ul style="list-style-type: none"> Professor of accounting, Chungnam National University | 2018.03.20 (newly appointed) |

* One outside director resigned from the board. (2018. 04. 19)

Committees in the BOD

Audit Committee | This committee of three outside directors assists the board of directors in its governance and oversight responsibilities. It reviews operating results and financial statements on a quarterly basis and is authorized to audit overall accounting affairs and financial status as needed.

Outside Director Nomination Committee | The nomination process by this committee is conducted in fair and transparent manner. The committee selects outside director candidates to offer professional consultation and advice based on their personal expertise and serve as checks and balances to corporate management.

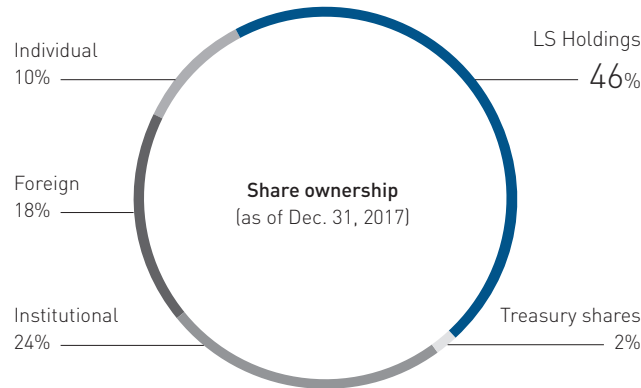
BOD and subcommittee meetings in 2017

| Category | Meetings convened | Attendance | Items resolved | Items reported |
|---------------------------------------|-------------------|------------|----------------|----------------|
| BOD | 6 | 100% | 16 | 13 |
| Audit Committee | 5 | 100% | 4 | 10 |
| Outside Director Nomination Committee | 2 | 100% | 2 | - |

Remunerations of directors in 2017

| Limit of remuneration | Total remunerations paid |
|-----------------------|--------------------------|
| KRW 5 billion | KRW 2.45 billion |

Shareholder/Investor status



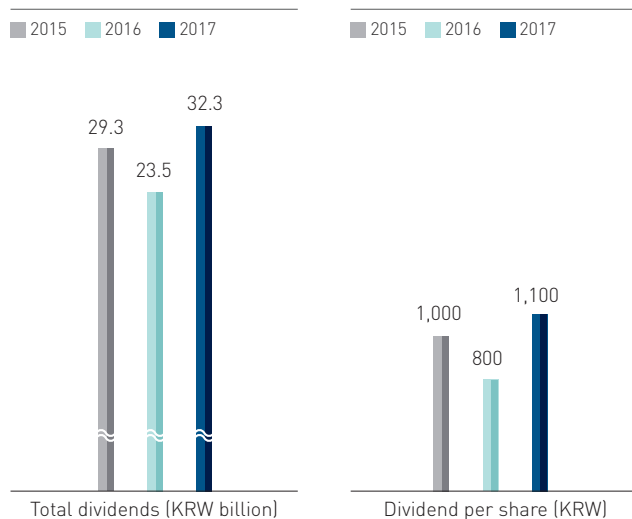
As of December 31, 2017, the number of floating shares is 29,325,028, which is 98% of total shares issued excluding 2% of treasury shares. LS Holdings is the largest shareholder with 46% ownership followed by the NPS* with 12%.

| Category | Relations | Share type | Shares held | |
|-------------------------|-------------------------|---|-------------|---------------|
| | | | In number | In percentage |
| LS Holdings | The largest shareholder | | 13,800,000 | 46 |
| Treasury shares | - | | 674,972 | 2 |
| Institutional investors | NPS | More than 5% of ownership Common share | 3,646,403 | 12 |
| | Others | | 3,457,250 | 12 |
| Foreign investors | - | | 5,307,719 | 18 |
| Individual investors | - | | 3,113,656 | 10 |
| Total | | | 30,000,000 | 100 |

* NPS : National Pension Service

Shareholder returns (dividends)

LSIS has maintained a higher dividend payout ratio than the KOSPI average since 2014 in our commitment to higher shareholder returns. Going forward, our efforts to bring more value to and grow together with shareholders will continue.



[Unit : %]

| Category | 2015 | 2016 | 2017 |
|-------------------------------------|------|------|------|
| Dividend payout ratio ¹⁾ | 42.2 | 40.5 | 34.0 |
| Dividend yield ²⁾ | 2.17 | 2.01 | 1.69 |

1) Dividend payout ratio: Total dividends / Net profit

2) Dividend yield: Dividend per share / Year-end closing price (based on KRX data)

* Dividends on common shares were counted only. Dividends on class shares were excluded.

Communication with shareholders and investors

Providing shareholders and investors with information in a timely and transparent manner is essential for building a trust-based relationship. To this end, investor relations meetings and events are held to share information, including operating performance, financial information, mid-/long-term strategies, and progress on new businesses. Our efforts to communicate with investors at home and abroad will continue through regular earnings release meetings and diverse IR events.

| Category | | | Note |
|----------|--------|---|--|
| Regular | Feb. | 2016 Q4 earnings release NDR* | Organized by Kiwoom |
| | Apr. | 2017 Q1 earnings release NDR | Organized by Hanwha |
| | Jul. | 2017 Q2 earnings release NDR | Organized by NH |
| | Nov. | 2017 Q3 earnings release NDR | Organized by Kiwoom |
| | Ad-hoc | Mar. | Hanwha Investment & Securities Corporate Day |
| Apr. | | Analyst Day | |
| Jun. | | Hana Financial Investment Corporate Day | |
| Aug. | | Shinhan Investment Mini NDR | |
| Sept. | | KSG Expo, Analyst Day | Visit to Smart Grid Expo and presentation |
| Nov. | | Korea Investment & Securities Corporate Day | |
| Nov. | | Shinhan Investment Corporate Day | |
| Overseas | Sept. | NDR in Hong Kong and Singapore | Organized by Shinhan |

* Non-Deal Roadshow

Stakeholder Value Chain Map

Team in charge
Public Relations Team

Key communication channels

- Meetings with local communities
- Direct communication with the person in charge
- Meetings with the management
- Surveys

Local communities

Social contribution activities

119

Participants

1,590



Team in charge
Treasury Team

Key communication channels

- NDR
- Company visits
- Company website

Shareholders and investors

Dividends and interests

KRW 49.4 billion



Team in charge
Safety & Environment Team

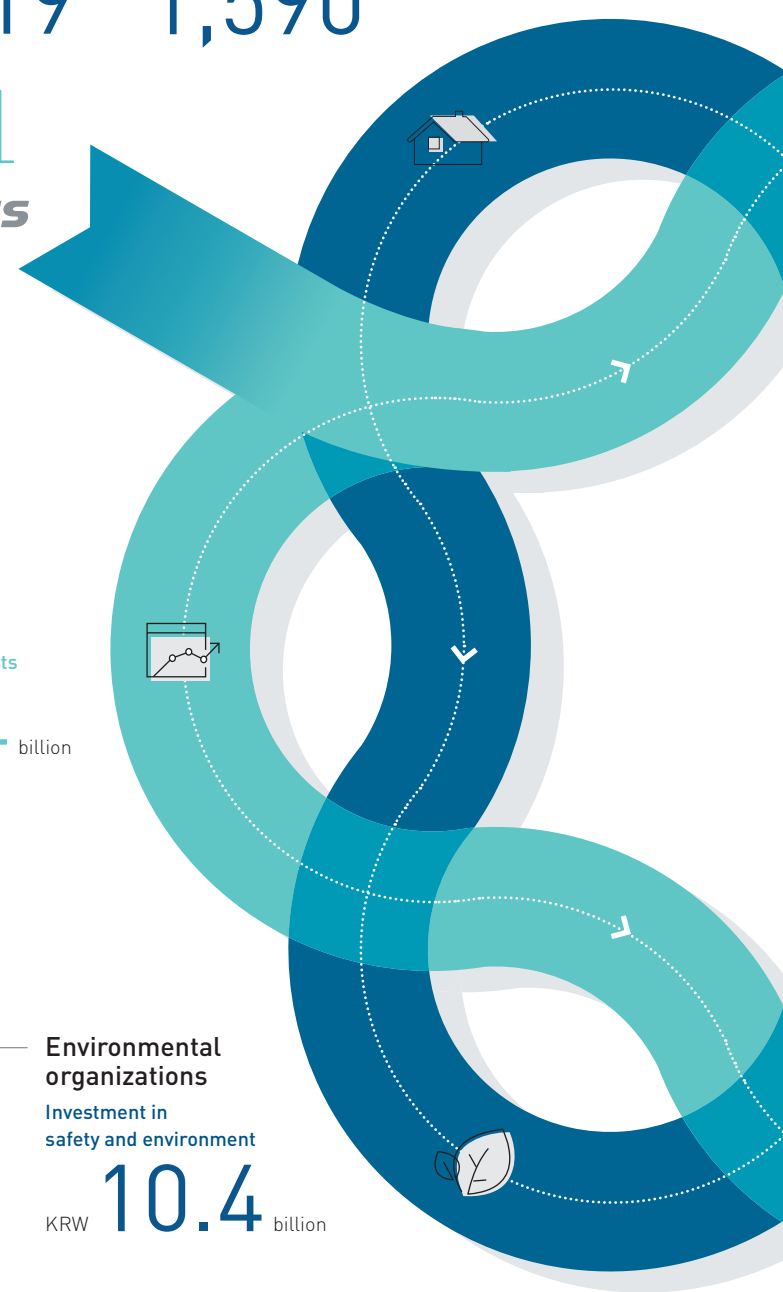
Key communication channels

- Regular meetings
- Company website
- Direct communication with the person in charge

Environmental organizations

Investment in safety and environment

KRW 10.4 billion



LSIS has been creating and sharing value with stakeholders in every facet of our business activities. Going forward, we will strive to promote even greater value with our stakeholders.

(Non-consolidated basis)

Employees

New employees (permanent)

41

Salary and employee training expenses

KRW 305 billion

Team in charge

HR Team

Key communication channels

- Communicator
- LinkerS
- LSIS Monthly Magazine
- Surveys
- WeLS

Suppliers

Purchase of raw materials and parts

KRW 1,186.3 billion

Financial support

KRW 13.9 billion

Team in charge

Win-Win Growth Team

Key communication channels

- Supplier Exchange meeting
- Management seminars
- Quality innovation meetings
- Performance sharing meetings
- TOPS (internet portal for shared growth)

Customers

Advertising expenses

KRW 6.9 billion

Seminars

68

Team in charge

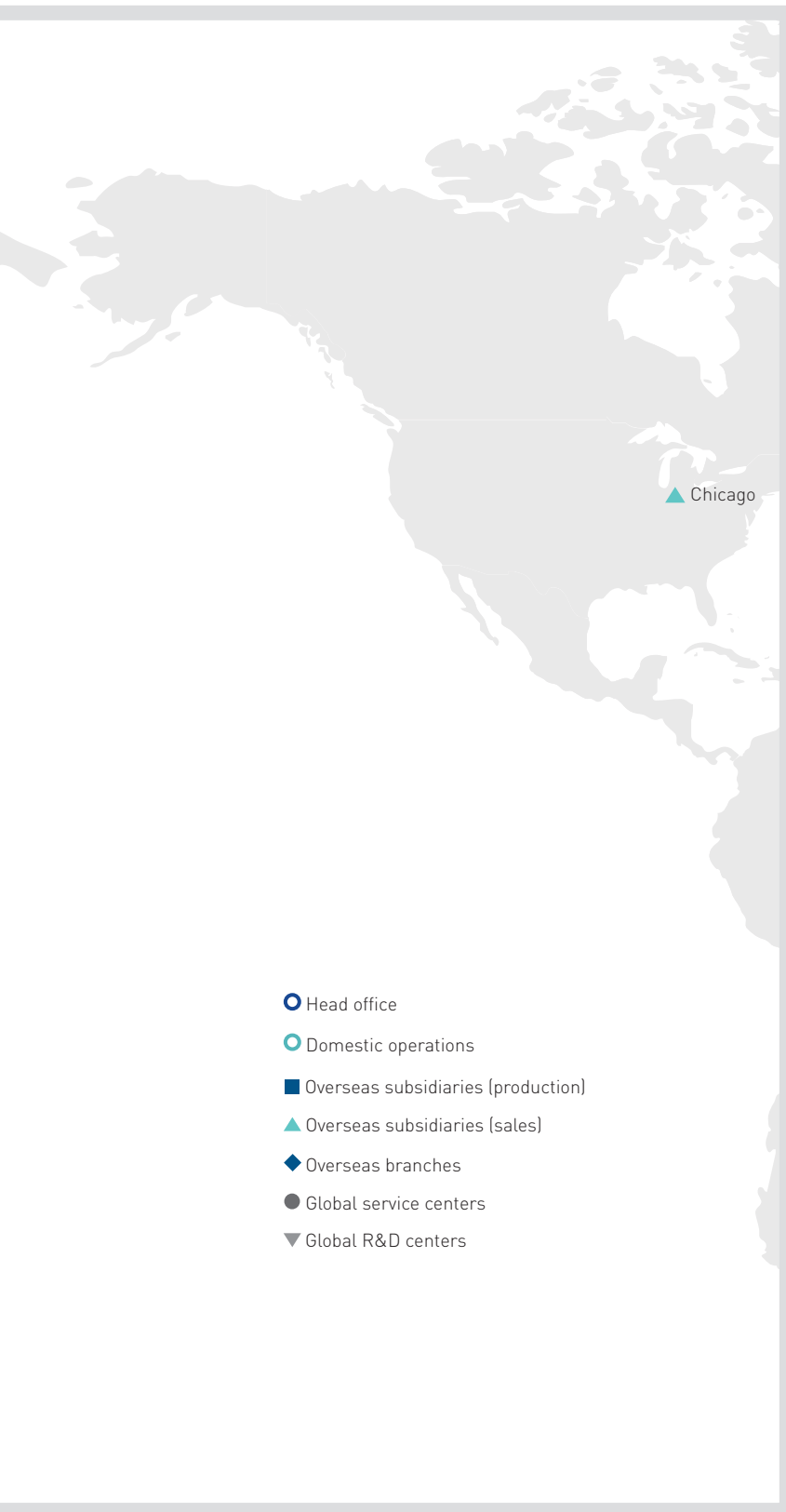
Marketing Team

Key communication channels

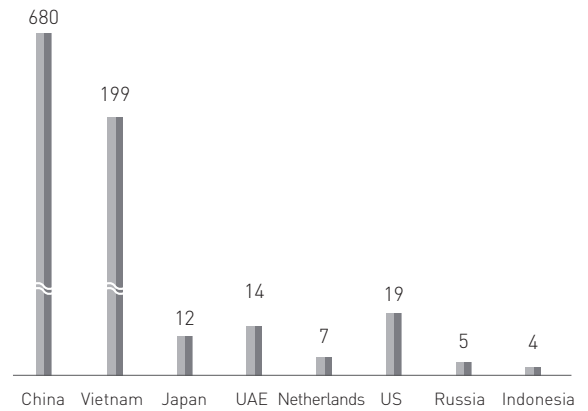
- Exhibitions and seminars
- Meetings with customers
- Distributors meetings
- Visit to customers
- Customer service centers

Global Business





**Employees in overseas locations
(as of the end of December 2017)**



Subsidiary companies



Core Biz Manufacturing copper tubes and STS steel pipes
Address Gangnam-gu, Seoul



Core Biz Manufacturing industrial electronic equipment
Address Dalseo-gu, Daegu



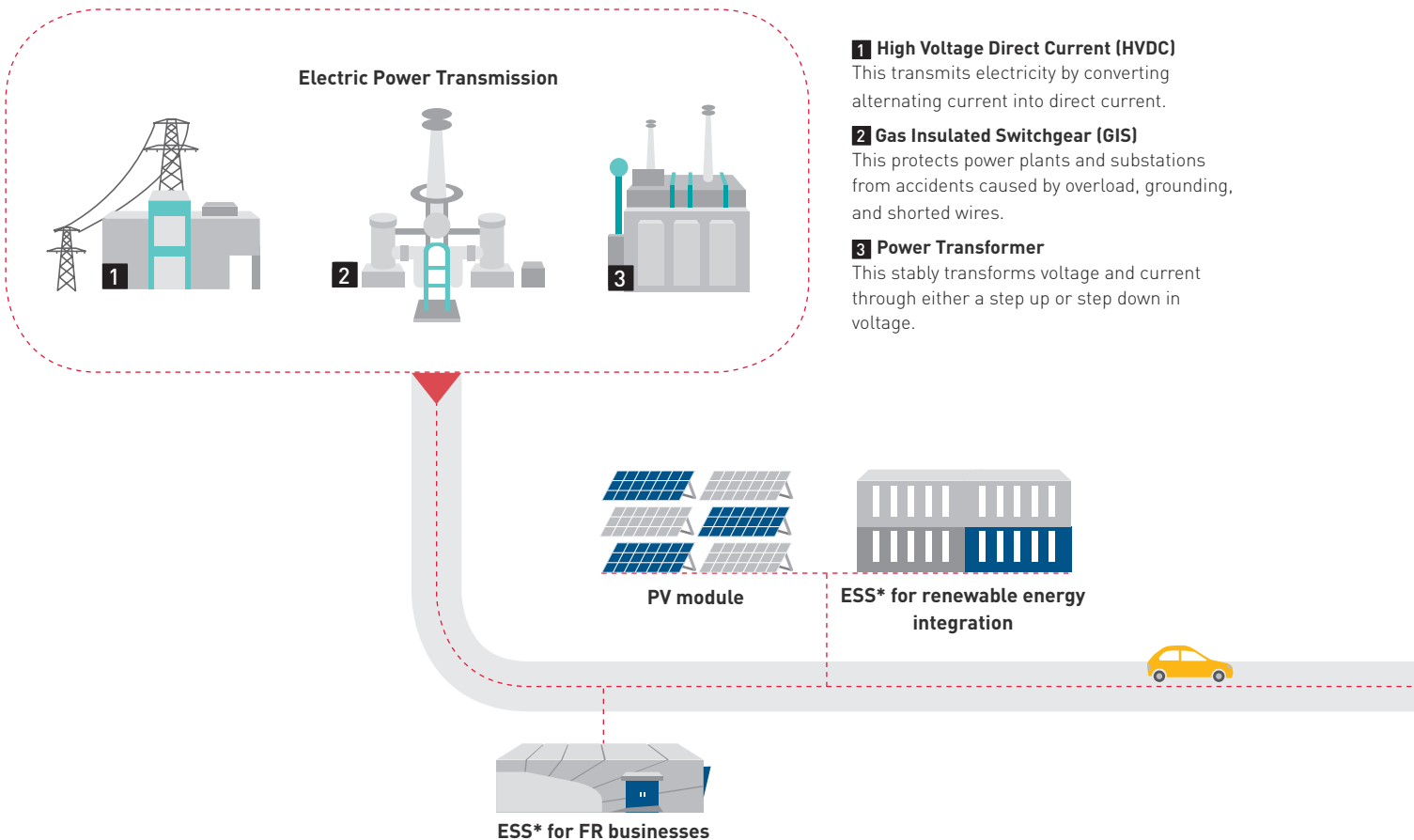
Core Biz Selling BAS/IBS and GBS systems
Address Geumcheon-gu, Seoul

Power Solutions Business

LSIS provides a total solution that allows safe and efficient management for the entire process from power generation to consumption. Our main systems are divided into two groups: transformers for adjusting system voltage to a safe value, and circuit breakers designed to prevent overcurrent and ensure an adequate power supply. Recently, High Voltage Direct Current (HVDC) Systems, Energy Storage Systems (ESS), Energy Management Systems (EMS), and Power Conversion Systems (PCS) for ESS have been added to our product portfolio. These products enable households and enterprises to minimize power loss, thereby promoting the use of eco-friendly smart energy at reduced cost.

- **Targets for 2017**
 - Focus resources on target countries
 - Expand business areas by entering new markets
 - Increase presence in renewable energy markets through products and solutions
- **Performance in 2017**
 - Established a detailed target country strategy
 - Maintained market share in areas with a competitive edge and entered new markets
 - Entered the KEPCO FACTS market
 - Implemented the ESS solutions package and developed the digital IPP business
- **Plan for 2018**
 - Promote localization in overseas markets with strategic importance and produce results
 - Expand the scope of markets and products
 - Diversify business models in the smart energy area

Key Power Products



Smart Energy

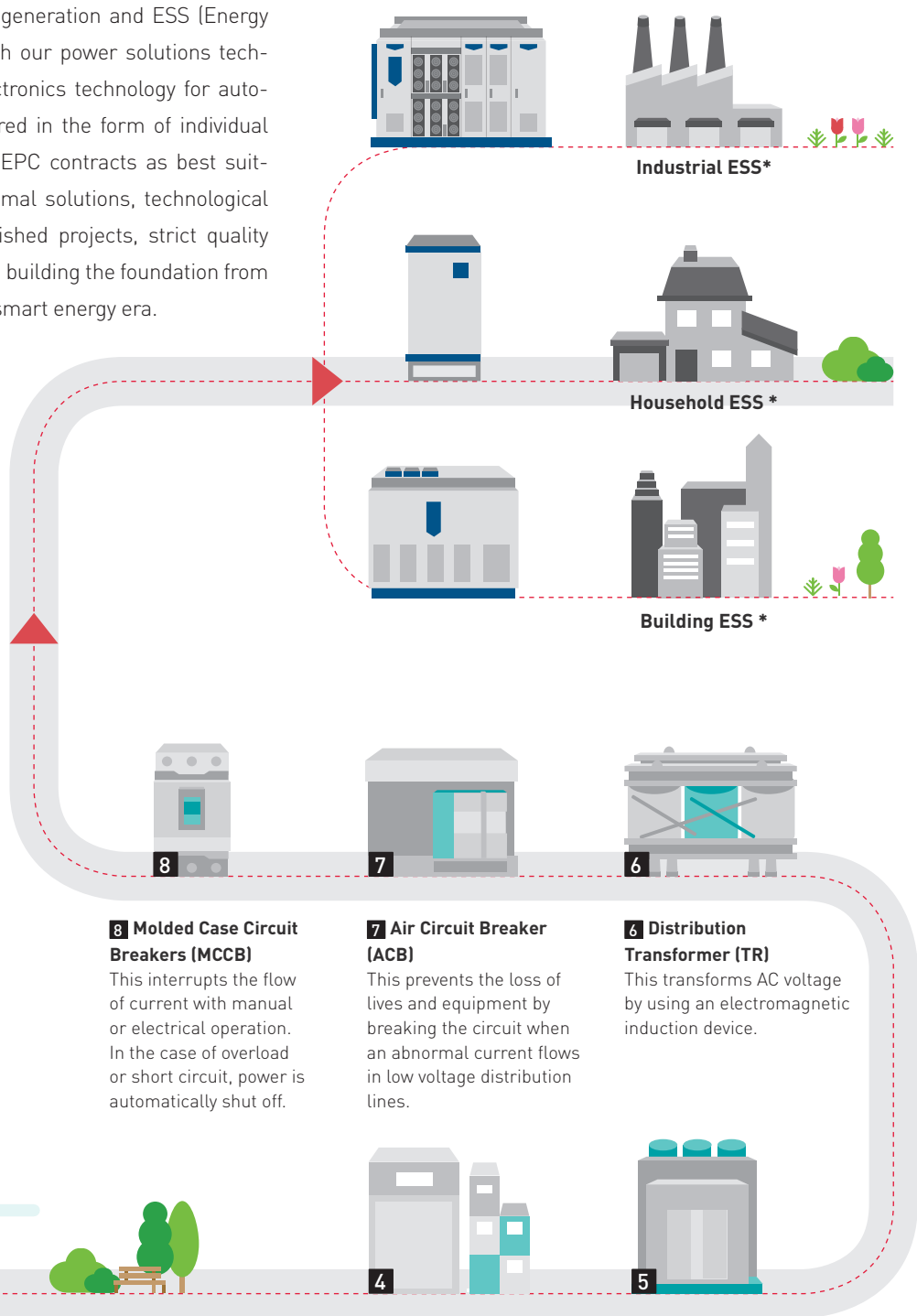
LSIS is developing solar power generation and ESS (Energy Storage System) businesses with our power solutions technology platform and power electronics technology for automation. Our services are delivered in the form of individual products, turn-key systems, or EPC contracts as best suited to customer needs. Our optimal solutions, technological strength proven through established projects, strict quality control, and one-stop service are building the foundation from which we are spearheading the smart energy era.

2017 performance in power solutions business (non-consolidated basis)

Sales
KRW **1,415.9** billion

Share of overseas sales
31 %

Share of businesses
78 %



8 Molded Case Circuit Breakers (MCCB)
This interrupts the flow of current with manual or electrical operation. In the case of overload or short circuit, power is automatically shut off.

7 Air Circuit Breaker (ACB)
This prevents the loss of lives and equipment by breaking the circuit when an abnormal current flows in low voltage distribution lines.

6 Distribution Transformer (TR)
This transforms AC voltage by using an electromagnetic induction device.

4 Switchgear
This monitors electric power systems and manages safety controls using electrical switches, fuses, and/or circuit breakers within an enclosed electrical box.

5 Vacuum Circuit Breaker (VCB)
This prevents the loss of lives and equipment by breaking the circuit in a vacuum when an abnormal current flows through high voltage distribution lines.

*ESS : As electricity produced is captured and used at a time of short supply, the efficient use of energy is promoted.

Industrial Automation Business

LSIS provides a wide range of automation solutions from single unit machines to process control for efficient operation of industrial facilities. Our key product portfolio includes PLC for equipment control, AC Drives for motor speed adjustment, and HMI for real-time equipment monitoring. Moreover, as part of our efforts to improve energy efficiency in overall businesses, including factory operations, we are promoting smart factory solutions that provide optimized IT services using collected information.



Plans for 2017

- Promote the GMC (general motion controller) business
- Put more focus on direct sales in the domestic market
- Concentrate resources on target countries
- Expand the portfolio of smart factory solutions

Performance in 2017

- Developed the GMC business
- Made a significant breakthrough with technology support to customer in the target domestic market
- Strengthened an overseas distribution network of target countries

Plans for 2018

- Strengthen the capability of domestic/global distributors
- Expand the scope of product portfolio and applications
- Establish a business model for smart factories



2017 performance Industrial Automation Business (non-consolidated basis)

CPS solutions

As a platform that connects reality with virtual reality, it promotes efficient factory operation. It monitors data generated by field devices and collected by automated devices, and the accumulated information is transferred to the business information system.

Sales

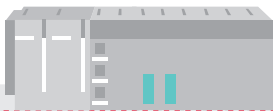
KRW **391.5** billion

Share of overseas sales

39 %

Share of businesses

22 %

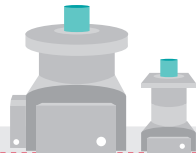


Programmable logic controller (PLC)

This is a universal controller programmed to operate machinery under set orders and conditions. It has a wide range of applications from large-scale automation equipment in factories/plants to car-wash machines, golf ranges, and general use.

Human machine interface (HMI)

This allows users to easily check the operative status of different production equipment on a touchscreen so that measures can be taken as necessary.



AC drive (inverter)

This helps conserve energy by changing the frequency of the power supply to control the speed or torque of a motor.

Decelerator

Connected to the motor shaft, it delivers decreased speed but increased torque by load. It has wide applications for semiconductors, displays, beverage machinery, and logistics machinery.

Motion/Servo

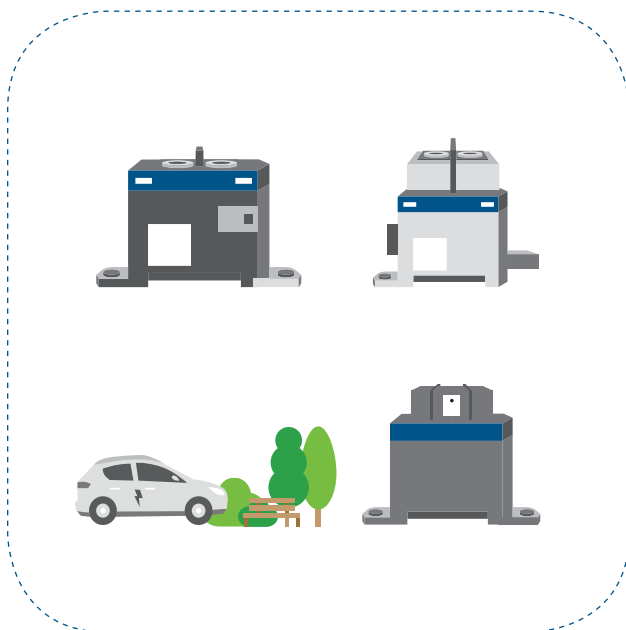
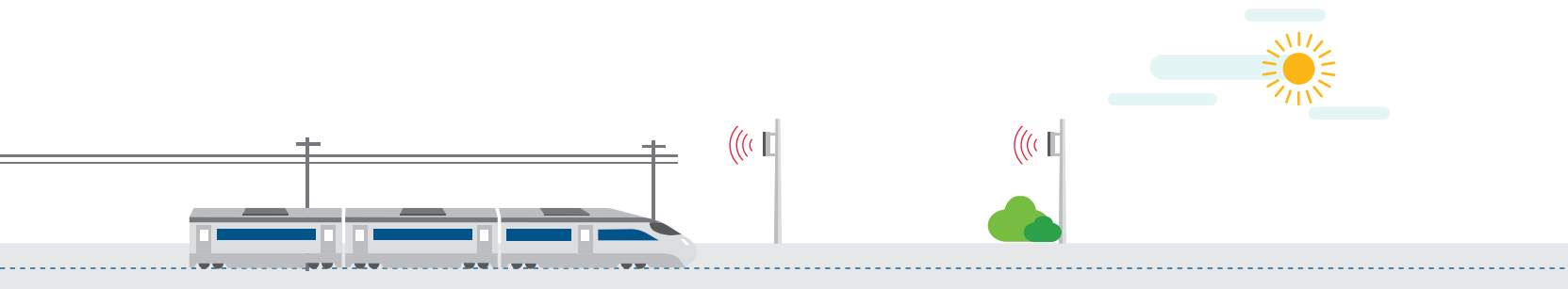
This offers precision control through feedback when equipment is moved to a new location or operated at the speed/torque required by the system.

Railway Infrastructure Business

LSIS offers a total solution for E&M (electrical and mechanical) systems ranging from design to manufacturing, installation, testing, trial runs, operation, and maintenance of railways for high-speed trains, general trains, subways, and light rail. In addition, integrated management based on high system reliability helps us successfully implement the E&M system. Based on our accomplishments in this area as a leader in Korea, we are expanding the scope of our overseas businesses.

Railway power system | Traction lines and power supply facilities are applied to supply electric energy from the railway system to railroad cars.

Signaling system | Comprehensive train control (signal/communication) and engineering technologies are applied for effective management of train intervals, paths, operational security, and IT equipment.



DC-Relay

With the rapid development of the EV and eco-friendly vehicle market, the market for DC-Relay parts ensuring a stable power supply is growing steadily. LSIS, the second-largest player in the global relay for electric vehicles market, is increasing its presence in industrial relay market.

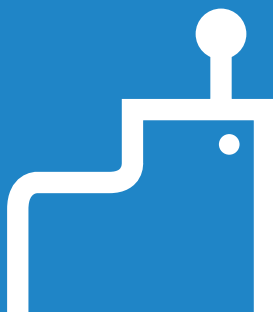
Relay for electric vehicles | This is installed between the battery and load in EVs to ensure stable power supply and isolation.

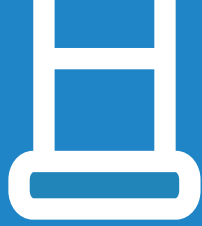
Industrial Relay | Used in renewable energy and general transport systems, it supplies and draws power to and from batteries and DC load.



Core Issues of Sustainability Management

Our target for sustainability management is to earn respect through trust-building with our stakeholders. To this end, we will strive to build a healthy corporate culture and proactively communicate with our customers, partners, shareholders/investors, local communities, and employees as we grow and create value together.





| | | | |
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| Integrated Risk Management | 32 | - Local Community Contribution | 68 |

Integrated Sustainability Management

Under the goal of earning respect through trust-building with stakeholders, three strategic directions have been implemented under stakeholder-specific action plans: Stakehold-

er Engagement, Sustainability Enhancement, and Integrated Risk Management. LSIS will continue to proactively communicate with stakeholders as we achieve shared growth.

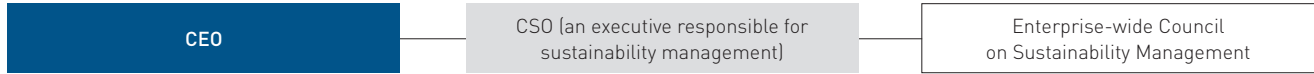
Framework

| | | | | | | |
|------------------------------------|---|---|---|--|--|---|
| Goal | Earning respect through trust-building with stakeholders | | | | | |
| Three strategic directions | Stakeholder Engagement | | Sustainability Enhancement | | Integrated Risk Management | |
| Key stakeholders |  |  |  |  |  |  |
| | Customers | Suppliers | Environment | Employees | Shareholders & Investors | Local communities |
| Action plans by stakeholder | Creating customer value with product responsibility and proactive communication | Achieving shared growth by establishing a culture of fair trade | Promoting environment management in line with global standards | Nurturing creative talent and improving quality of life | Increasing shareholder value through management integrity and transparent disclosure | Supporting local communities through voluntary social contribution |

Roadmap for Sustainability Management

| | | | |
|---|---|---|--|
| | Building a consensus (-2015) | Strengthening capability for implementation (2016-2018) | Expanding to global operations (2019-) |
| Integrated sustainability management | <ul style="list-style-type: none"> • Providing in-house training • Operating the Council on Sustainability Management | <ul style="list-style-type: none"> • Evaluating performance • Reinforcing implementation strategies by function | <ul style="list-style-type: none"> • Strengthening the infrastructure for sustainability management in overseas plants • Promoting activities for global initiatives |
| Shareholder engagement | <ul style="list-style-type: none"> • Assigning teams in charge and defining R&R by stakeholder | <ul style="list-style-type: none"> • Developing a process for incorporating stakeholders' feedbacks | <ul style="list-style-type: none"> • Expanding the scope of stakeholders to the global level and enhancing R&R of each team |
| Sustainability enhancement | <ul style="list-style-type: none"> • Strengthening requirements on disclosing environmental data | <ul style="list-style-type: none"> • Making an organized effort in the environmental monitoring of the value chain | <ul style="list-style-type: none"> • Reinforcing green marketing activities at a global level |
| Integrated risk management | <ul style="list-style-type: none"> • Enhancing the integrated system to manage risks | <ul style="list-style-type: none"> • Establishing monitoring processes to identify key risks | <ul style="list-style-type: none"> • Building a system to identify and manage risks in overseas plants |

Implementation system



Council on Sustainability Management



Responding to UN SDGs

In order to contribute to achieving the UN Sustainable Development Goals, LSIS will continue to explore and pursue all feasible options.



| No. UN SDGs | Activities | No. UN SDGs | Activities |
|---|--|---|-----------------------------------|
| 1 No Poverty | Social contribution activities by region | 10 Reduced Inequalities | |
| 2 Zero Hunger | | 11 Sustainable Cities and Communities | LSIS's business and service areas |
| 3 Good Health and Well-being | Employee welfare policy | 12 Responsible Consumption and Production | Safe and environment management |
| 4 Quality Education | Social contribution activities by LS Group | 13 Climate Action | Measures for climate change |
| 5 Gender Equality | Equality policy for employees | 14 Life Below Water | |
| 6 Clean Water and Sanitation | Safe and environment management | 15 Life on Land | Safe and environment management |
| 7 Affordable and Clean Energy | LSIS's business and service areas | 16 Peace, Justice and Strong Institutions | Transparent corporate governance |
| 8 Decent Work and Economic Growth | Talent policy and business growth | 17 Partnerships for the Goals | Shared growth with suppliers |
| 9 Industry, Innovation and Infrastructure | Activities for management improvement | | |

Materiality Assessment

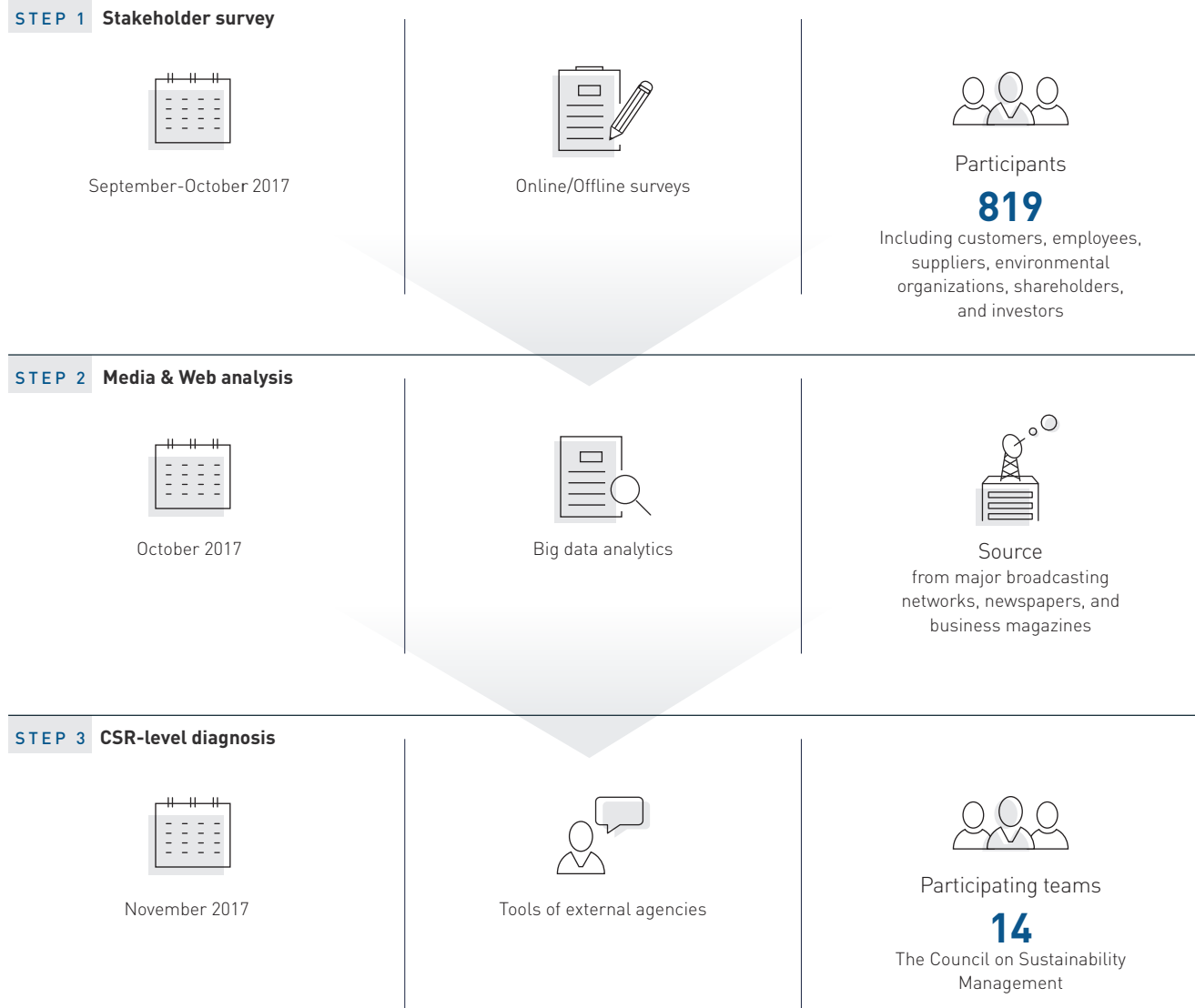
Materiality Assessment Overview

A total of 16 out of the 37 topics identified in the material assessment have been selected as key topics by considering the potential impact on our business and the level of interest among stakeholders. The selection process is comprised of 1) creating a pool of topics; 2) prioritizing topics; and 3) identifying key topics.

Creating a pool of topics



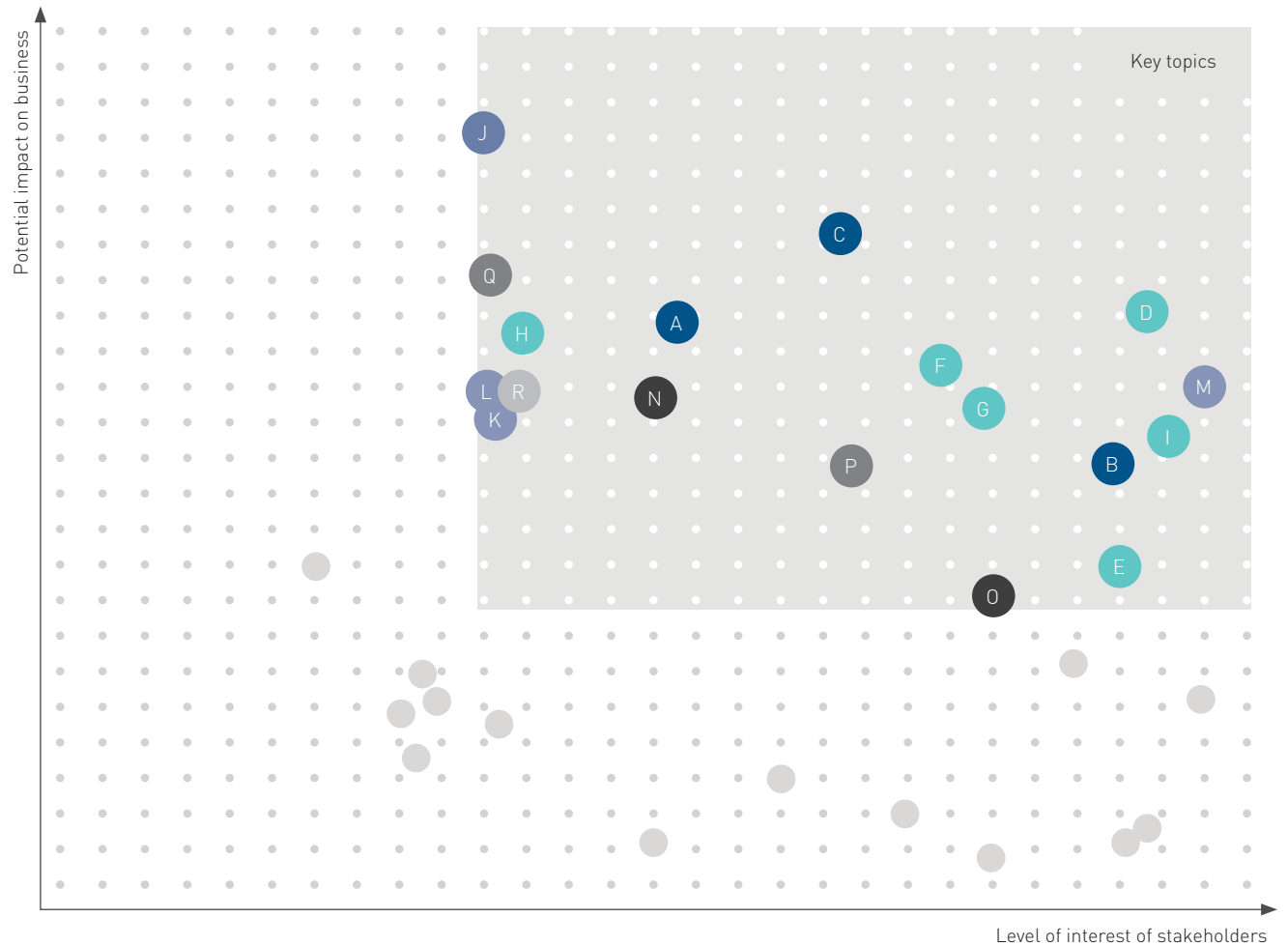
Prioritizing topics



Identifying key topics

The materiality assessment matrix is designed based on the potential impact on business and the level of interest among stakeholders. Please refer to the page indicated in the legend below for details on each key topics.

Materiality assessment matrix



Legend

| Category | Core Topic | Page | Category | Core Topic | Page |
|----------------------------------|---|------|-----------------------------------|---|------|
| Ethics & risk | A. Ethical management | 28 | Safety and environment management | J. Worksite safety and health | 48 |
| | B. Compliance management | 31 | | K. Energy conservation and climate change | 49 |
| | C. Integrated risk management | 32 | | L. Worksite safety management | 50 |
| Customer satisfaction management | D. Competitiveness in quality | 36 | Shared growth with suppliers | M. Eco-friendly products and services | 53 |
| | E. Activities to ensure product reliability | 38 | | N. A culture of shared growth | 56 |
| | F. Technological competitiveness | 38 | Employees | O. Competitiveness of suppliers | 57 |
| | G. Intellectual property management | 40 | | P. Talents management | 65 |
| | H. Communication with customers | 42 | | Q. Human rights and labor-management relationship | 67 |
| | I. Information security | 45 | Contribution to local community | R. Social contribution activities | 70 |

Ethical Management

Goal of ethical management

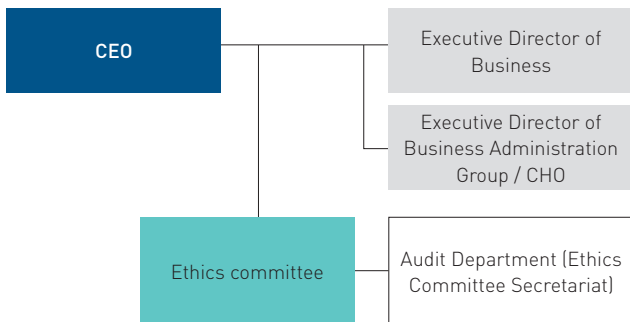
The goal of ethical management at LSIS is to fulfill our corporate responsibility to customers, suppliers, shareholders, and society based on the principles of fairness, honesty, and integrity.



Ethical management system

Organizations in charge

The Ethics Committee is the highest body for implementing ethics management. It is made up of members of the HR Committee. Under this committee, the Ethics Committee Secretariat is operated by the Audit Department



Roles of the Ethics Committee Secretariat

- Developing and promoting the system to comply with code of ethics, and providing training
- Establishing and operating the procedures of reporting unethical cases or potential risks
- Making authoritative interpretation in ethical practices and submitting key issues to the Ethics Committee

Code of Ethics and Conduct

LSIS has established its Code of Ethics and Conduct as criteria for actions and value judgments among employees. It is applied to all the subsidiaries of LSIS. For overseas subsidiaries, however, local laws and regulations must be considered as well. The Code is reviewed annually to keep it up to date, and activities are conducted to raise employee awareness of it.

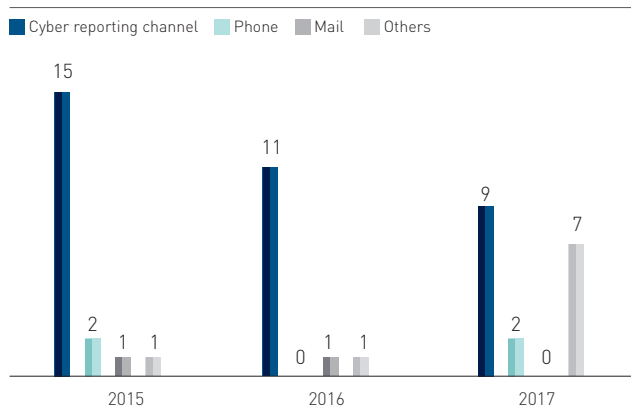
| Code of Ethics | Summary |
|--|--|
| Chapter 1. Responsibilities and duties for customers | Providing information / Serving customers / Protecting the interests of customers |
| Chapter 2. Fair competition | Fair competition / Respecting related laws, regulations and business practices |
| Chapter 3. Fair trade | Selecting suppliers through a transparent process / Promoting fairness in transactions and evaluation / Maintaining order in trade / Supporting suppliers |
| Chapter 4. Basic ethics for employees | Keeping one's dignity as an LSIS employee / Reporting with honesty and integrity / Protecting the company's property / Avoiding the conflict of interests against the company / Preventing sexual harassment at work |
| Chapter 5. Responsibilities for employees | Fostering talent / Ensuring fair treatment / Promoting health and safety / Respecting employees' opinions |
| Chapter 6. Responsibilities for the nation and society | Doing business right / Protecting the interests and rights of shareholders / Protecting the environment / Contributing to the nation and society |

Policies and systems in operation

Reporting hotlines

To eradicate unethical acts within the company, LSIS constantly operates a variety of communication channels, including phone, post mail, e-mail, and a cyber reporting channel. Suppliers, employees, and customers can report any cases of corruption, irregularities, or unfair business practices by LSIS employees. Complaints on product quality or inquiries about products and services are transferred to the customer service center.

Reports received and resolved by channel (Unit: case)



Reports received and resolved by category (Unit: case)

| Reporting category | 2015 | 2016 | 2017 |
|-------------------------------|------|------|------|
| Unfair trade | 7 | 1 | 5 |
| Corruption and irregularities | 1 | 3 | 2 |
| Unfair practices | - | 1 | - |
| Claim | 6 | - | 2 |
| Others | 5 | 8 | 9 |
| Total | 19 | 13 | 18 |

* The reporting category may not be consistent with the investigation result as it is classified based on reporters' judgment.

Self-reporting program

To promote a healthy corporate culture by eliminating unethical acts, LSIS operates a self-reporting program through which employees who might have accepted bribes and/or offers of entertainment can voluntarily report according to defined procedures. To encourage self-reporting, a special announcement is made on a periodic basis to exempt from responsibil-

ity those who voluntarily report unethical acts. Previously, an exemption announcement was made in 2010, 2014 and 2017.

Reporter protection policy

LSIS does not disclose the personal information of anyone reporting, the reported details, or any other information that could identify them without their consent. If the reporter is disadvantaged due to a disclosure, the company will take responsibility to restore the disadvantaged person to the original state and assume liability accordingly.



Reported details and the personal information of reporters are kept strictly confidential and the reporting system is operated in a secure and safe manner.



Self-reporting by those who were involved in unethical acts is taken into consideration when resolving the case.



Information on reporters and interested parties is strictly protected and an investigation is conducted to ensure the fair and objective resolution of the case.



If a disadvantage to the reporter is recognized as a result of any information leakage, LSIS will compensate the disadvantage or take equivalent remedial measures.

Procedures to respond to unethical acts

In accordance with the Code of Ethics and Conduct, a thorough investigation is conducted on unethical acts and the Disciplinary Committee reviews and deliberates the results to determine any disciplinary actions.

Online systems

Cyber reporting channel | LSIS is operating a cyber-reporting channel through which stakeholders (customers, partners, shareholders, and employees) can report any corruption or irregularities and cases of unfair business practices by LSIS employees. Anyone suffering any disadvantage can access the system to report it, and the reporter's information and the report details are strictly managed as classified information according to policy.

Audit result follow-up system | With the aim of monitoring the status of internal audit results by each group and team, an audit result follow-up system has been implemented since June 2014. The system helps employees implement action plans to prevent the same issues from reoccurring.

Implementing ethical management

Activities for implementation

Pledge to practice ethical management | As part of the efforts to raise awareness and promote transparent business process, LSIS employees must biannually submit a written pledge to practice ethical management. Since 2013, all employees of LSIS and its subsidiaries, excluding employees at overseas worksites and on leave, have joined these efforts.

Employee survey | A biannual survey is conducted to evaluate the level of satisfaction among employees on the company's ethical management and to check for unfair acts that could go unnoticed. The survey results, such as changes in satisfaction level (or ethical management index), suggestions, and feedback are utilized to set directions for planning ethical management activities. The most recent survey identified employee awareness of the Code of Ethics and Conduct as an improvement area. To resolve this issue, a banner announcing the Code has been implemented on the main page of the company's intranet in 2017 to help employees gain better access to it.

Training on ethical management | Training on ethical management is provided through an introductory course for both non-career and career employees in order to strengthen ethical management. Since 2013, the training that had been conducted only at the company level has been provided to all members of the LS Group. In 2014, the GVT (Greater Value Together) program was launched to implement ethical and compliance management at the Group level, promote LSpartnership, and facilitate organizational and individual growth. Online training is also provided to all employees. Starting from 2015, the topic of ethical management has been included in the training course for new managers to help raise their awareness of ethics and allow them to better respond to ethical dilemmas. From 2017, training materials are also being made available via the Intranet.



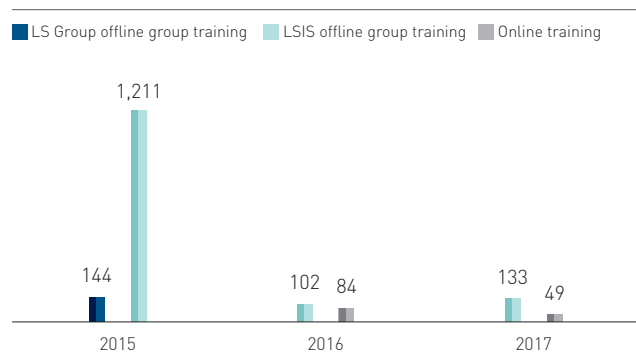
Strengthening partnership with suppliers/distributors

Official document for cooperation to suppliers/distributors | Before the Thanksgiving (Chuseok) and Lunar New Year's holidays, LSIS sends an official document from the CEO

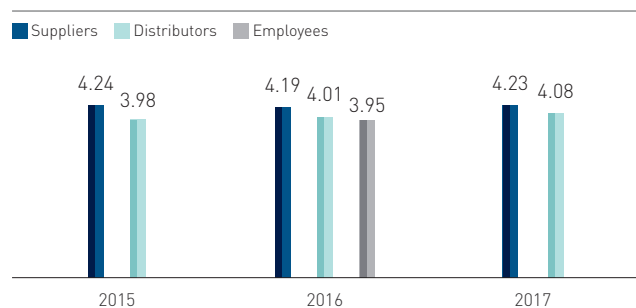
asking suppliers and distributors for cooperation in eradicating the practice of giving and receiving gifts, entertainment, and money. This announcement is also made to employees to encourage them to report any violations and to further promote LSpartnership, the management philosophy of LS Group.

Survey for suppliers/distributors | LSIS conducts an annual survey of suppliers and distributors to evaluate the level of satisfaction with the company's ethical management. The collected survey results, including changes in the satisfaction level, ethical management index, suggestions, and feedback, are utilized to set directions for planning ethical management activities. According to the 2017 survey, the satisfaction level of suppliers was 4.23, which has remained at a similar level since 2014, while 4.08 was recorded for distributors, showing a steady upward trend.

Training status (Unit: person)



Satisfaction level on ethical management (Unit: point)



Training for Suppliers | Performance-sharing meetings and lectures by external experts organized by the Shared Growth Team under the Strategic Purchasing Group are provided to suppliers to help them better understand LSpartnership and to build a consensus on ethical management.

Compliance Management

Since a compliance officer system was introduced in 2012, activities to promote compliance management have been conducted, including a proclamation ceremony in 2014, CP (compliance program), voluntary inspections, classification of legal risks, and training. The head of the Legal Affairs Division serves as the compliance officer and is spearheading these efforts.

Compliance officer

The compliance officer is appointed by the BOD in accordance with Article 542-13 of the Commercial Act. In 2012 and 2015, the head of the Legal Affairs Division was appointed as the compliance officer, and a support team was formed under the Legal Affairs Division to report activities to the BOD every year. The main activities of the compliance officer are 1) categorizing legal risks in business operations; 2) creating a checklist to prevent and manage risks; 3) supporting self-assessment using the checklist; and 4) providing compliance training.

Self-inspection activities

The support team is providing a checklist to help employees analyze, categorize, and manage legal risks associated with business operations.

This checklist consists of yes/no questions on compliance by category of legal risk. For non-compliance identified through the questions, employees can check the reason

and work on improvement measures using the list. The results of self-assessment are updated with risk categories once a year.

The compliance officer ensures that employees voluntarily check their compliance status using the checklist on an annual basis. The officer monitors self-assessment results to decide whether to further investigate compliance.

Training and information sharing activities

To raise awareness of compliance, the compliance officer ensures that themed training is provided to employees and information on revised laws and regulations and government policy is shared among the related teams. In 2017, 20 sessions of compliance training were offered and information sharing activities were conducted 10 times.

| | Topics |
|---|--|
| Compliance training | Fair Trade Act, Subcontracting Act, Agency Act, Electrical Construction Business Act, State Contract Act, contract terms on industry-academia R&D and development service, and information sharing meetings on strategic trade |
| Sharing information on revised laws and regulations | Product Liability Act (revised), Agency Act (revised), General Data Protection Regulation (GDPR), and measures to prevent serious industrial accidents |

Integrated Risk Management

Internal control of financial reporting

To manage the processes related to the calculation of financial statements, an internal control system was built in 2005 based on the COSO* Framework and was put into operation in 2006. The internal accounting manager reports the operational status of the system to the BOD and the Audit Committee, and the Audit Committee reports its evaluation results to the BOD.

* COSO : Committee of Sponsoring Organizations of the Treadway Commission

| | | | |
|------------------------------|----------------------------|---------------------------|----------------------|
| Internal verification system | Internal accounting system | Statement of work | Enterprise level |
| | | Statement of control | Work level |
| | | Capital SRM control | Account balance test |
| | | Ad hoc disclosure control | |

Risk management categories

A total of 104 risks have been defined and grouped by category, division, and section. Among them, 26 key risk items were selected based on the quality of their management and evaluation by worksites and the teams in charge.

The pool of risks at the corporate level

| Category | External environment risk | Strategic risk | Financial risk | Compliance risk | Operational risk |
|-------------------|--|--|--|---|---|
| Division | <ul style="list-style-type: none"> • Economy • Country/Politics/Society/Environment • Market condition • Accident/Disaster | <ul style="list-style-type: none"> • Business plans • Growth • PR/Communication | <ul style="list-style-type: none"> • Market • Capital balance • Asset impairment • Financial statements | <ul style="list-style-type: none"> • Contract/Lawsuit/Trade • Laws/Regulations • Ethics/Misconduct | <ul style="list-style-type: none"> • Project • Support process • Key process |
| Section | <ul style="list-style-type: none"> • Economy • Country • Politics • Competitors • Customers • Procurement/Suppliers • External stakeholders • Natural disaster | <ul style="list-style-type: none"> • Business plans • M&A • Business portfolio • Social contribution • Development and investment in new businesses • Brand/Reputation • Public relations/Communication • Investor relations | <ul style="list-style-type: none"> • Credit rating • Raw materials prices • Exchange rate • Liquidity • Trade receivables • Intangible assets • Tangible assets • Assets in stock • Investment assets • Asset impairment (common) • Tax • Financial statements • Accounting fraud | <ul style="list-style-type: none"> • Contract • Fair trade (anti-trust policy) • Other laws • HR/Labor • IP/Privacy protection • Overseas/Export • Environment/Safety • Irregularities • Corruption • Ethics/Compliance | <ul style="list-style-type: none"> • Project cost • Purchasing/Procurement • Design/Manufacturing • Bidding/Winning contracts • Project management • Corporation management • HR • Environment/Safety • Purchasing/Procurement • Logistics • Production/Quality • Sales/Marketing |
| No. of risk items | 13 | 16 | 22 | 19 | 34 |

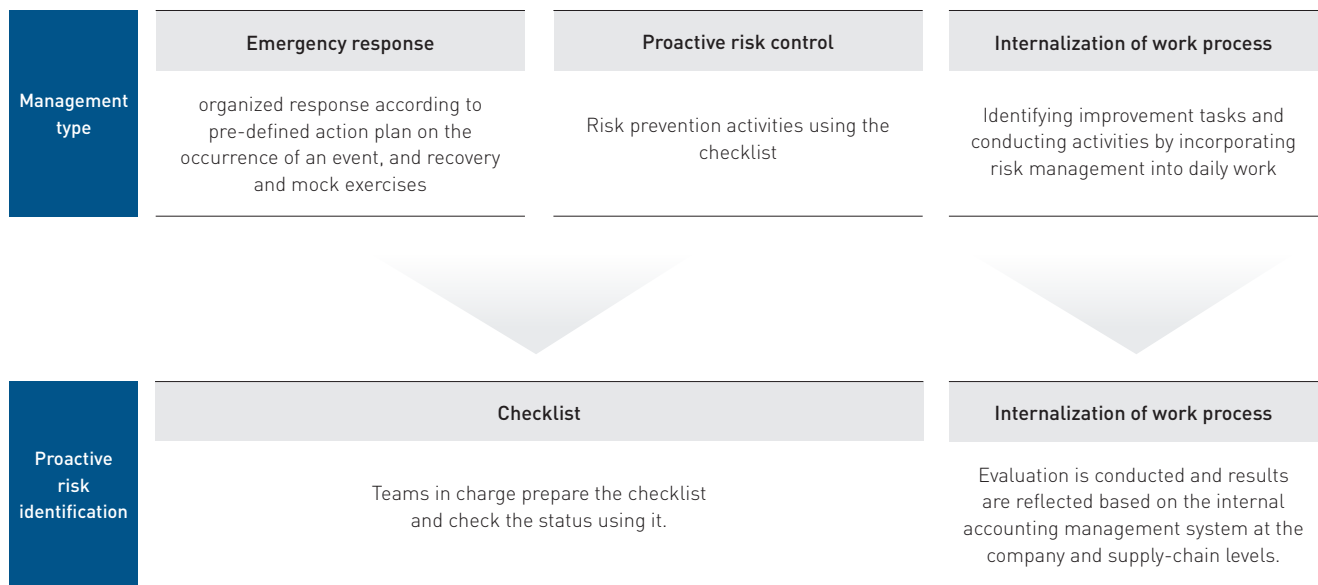
Selecting key risk items

From the pool of risks at the corporate level, 26 key risk items have been selected based on the quality of their management and evaluation by plants and teams in charge.

Proactive risk Identification

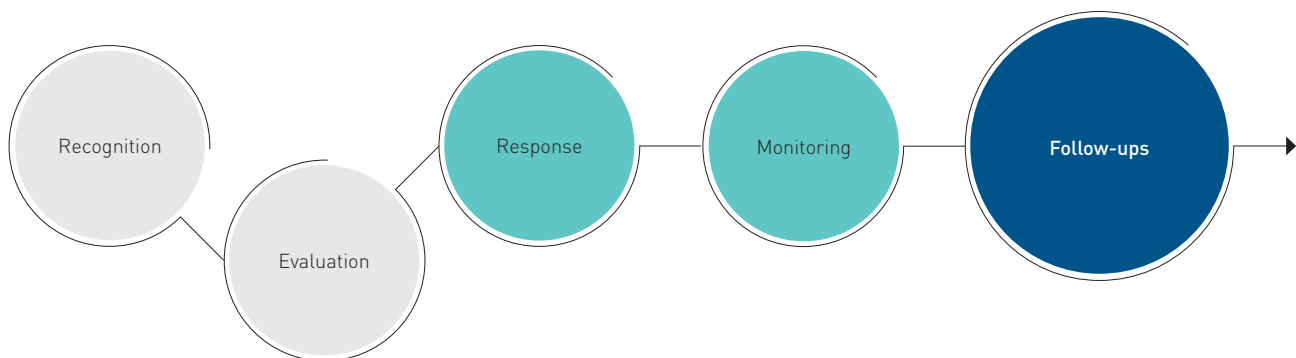
Corporate risks are categorized by management type, such as emergency response, proactive risk control, and internaliza-

tion of work processes. In 2016, an approach for proactively identifying and managing risks was devised and applied to key risk items in order to establish an efficient response system. The scope of this approach will be expanded to all 104 defined risks along with detailed pertinent guidelines. In addition, areas requiring improvement and the degree of related management risk will be monitored through efforts such as utilizing the checklist for risk prevention and quantifying risk volatility.



Risk management process

Risks identified using the proactive approach are evaluated, quantified, and then managed. When a risk exceeds the pre-defined limit, the Emergency Response Committee is convened to monitor conditions and respond at the company level. Through this management process, risks are continuously reviewed and follow-up measures are taken for mitigation.



CUSTOMER SATISFACTION MANAGEMENT



Byoung-Soo Koo
/ Marketing Team Leader, Industrial
Automation Business Group



Sang-Won Hwang
/ Marketing Team Leader,
Power Solution Business Group



Jang-Cheol Seo
/ Director of Technology Strategy
Team, Research &
Development Group

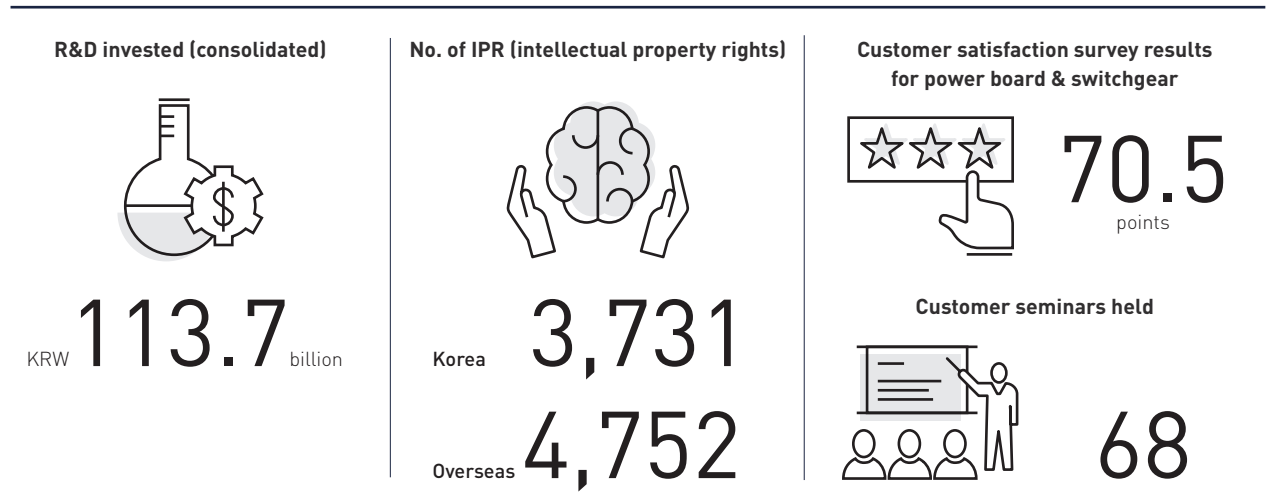
COMMITMENT

In 2017, all sorts of efforts were made to expand opportunities to communicate with customers and provide solutions best suited to a specific environment by participating in exhibitions and seminars, visiting industrial sites and universities, and providing technology training programs. Going forward, we plan to work even harder to communicate with more customers and provide optimal products and solutions.

The product development capability of LSIS is one of the key elements that enables us to achieve sustainability management. In 2017, the development process was changed in order to ensure higher quality, and activities to accelerate R&D were conducted to promptly reflect customer requirements. In 2018, we will make fuller use of digital technologies to allow a more efficient operational process and craft new product and solution models to maximize customer satisfaction.

LSIS is creating new value for customers through innovative products and technologies and working towards the goals of sustainability management by providing the highest possible product quality and reliability ideally suited to customer needs. In 2017, there was a paradigm shift to pursue preventive management as a means to enhance product quality and reliability. At the same time, the development and verification process has been strengthened to achieve an even higher level of quality. To adapt to fast-changing customer needs, we are proactively communicating with customers based on diverse approaches.

KPI in 2017



Key performance and targets

| | |
|-----------------------------------|---|
| <p>Targets for 2017</p> | <ul style="list-style-type: none"> • Shift the paradigm to pursue preventive quality management • Optimize processes for product development and reliability • Hold more exhibitions and seminars • Raise awareness on information security |
| <p>Performance in 2017</p> | <ul style="list-style-type: none"> • Shifted the paradigm to pursue preventive quality management • Strengthened the foundation for verifying quality in advance • Accelerated R&D efforts • Promoted and diversified exhibition and seminar activities • Provided the company-wide training on information protection |
| <p>Targets for 2018</p> | <ul style="list-style-type: none"> • Advance the system for developing and verifying products • Strengthen customer-oriented diagnosis and evaluation • Foster talent in quality and proprietary technologies • Innovate R&D methodologies • Further promote exhibition and seminar activities at home and abroad |

To fulfill our mission of being 'Great Company prospering for 100 years with quality that creates customer satisfaction', quality is the top priority of LSIS.

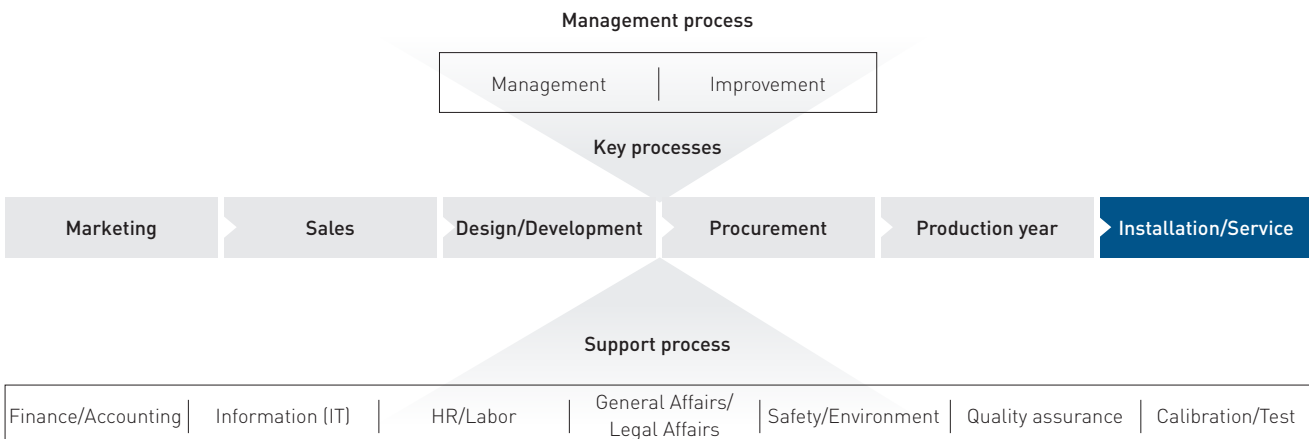
Mission and vision for quality management and its focus



Quality management system

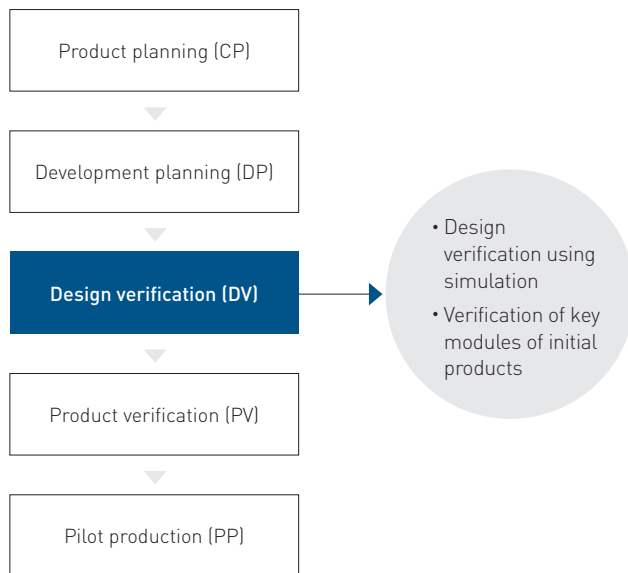
The quality management system of LSIS was established by incorporating the requirements of ISO 9001(1993-), ISO 14001(1996-), K-OHSMS(2008-), and TS16949(2010-), related laws and regulations, customer and market demands, and requirements identified in business operations. Product planning, development, manufacturing, and services have

all been identified as key processes for delivering value to customers. Infrastructure such as IT systems and facilities as well as management and support processes have also been added to the system to ensure efficient operations. This system has been applied to all domestic and overseas worksites to improve performance.



Product quality management

LSIS has strengthened the verification of product design within the R&D process to ensure pre-launch quality. The level of execution at each development phase is evaluated to guarantee product quality. In particular, verification of key features and environments has been reinforced at the design stage. In 2018, greater focus will be placed on nurturing talent for quality proprietary technologies to enhance quality management.



Power Testing & Technology Institute

Established in 2000 in order to improve product performance and reliability, the Power Testing & Technology (PT&T) Institute is the first private-sector facility equipped with a capacity of 2,000 MVA to test short circuits, high voltage, and reliability. The institute has also become globally recognized by signing MRAs (Mutual Recognition Arrangement) with UL (US), CE (EU), KEMA (Netherlands), and CESI (Italy). Since its launch, the testing period has been reduced by approximately 30%, resulting in annual cost savings of KRW 4.5 billion. Above all, it allows us to manage testing schedules to ensure product quality and reliability at an early stage and enhance product performance.



Front view of PT&T



High voltage short-circuit transformer



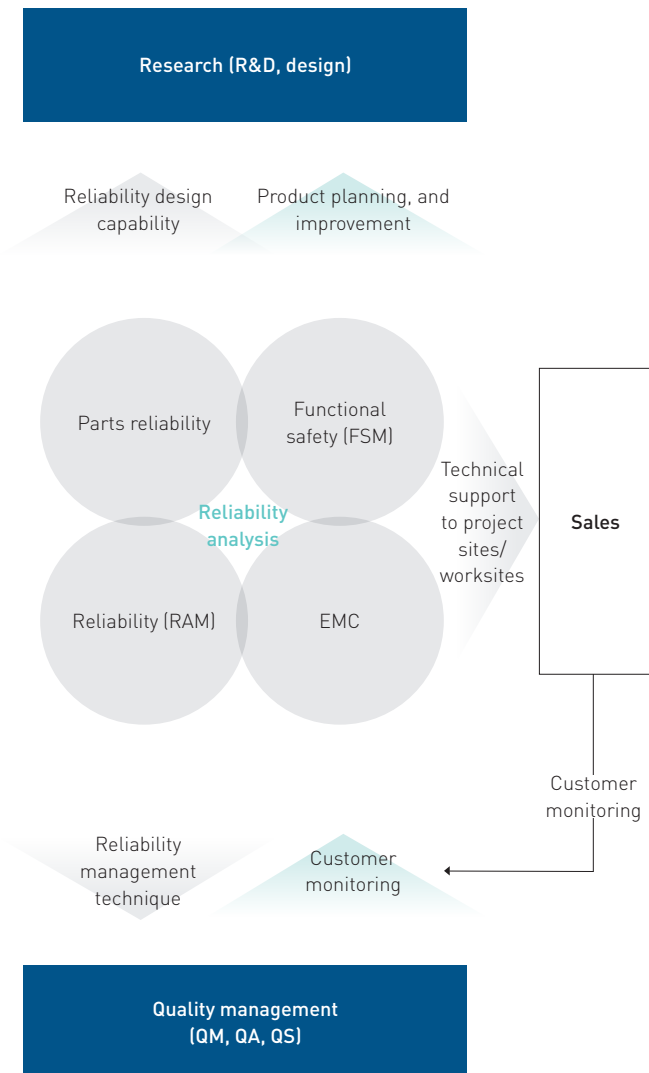
Radiated RF-electromagnetic field immunity test

Reinforcing product reliability

As part of the company’s systematic efforts to heighten product quality and reliability, the LSIS-700-based development process has been implemented since 2017.

These efforts include conducting product design activities using reliability-oriented robust design guidelines and interpretations from the perspective of front loading, promoting working-level reliability technologies, and providing customized training.

Structure for improving reliability



Complaint handling process

Customer complaints are managed according to the company’s guidelines and a pre-defined process utilizing QIS (Quality Information System). Complaints received by the customer service center are immediately transferred to the responsible teams for prompt resolution.

Since 2012, the Q-Post Tour has been operated to respond to potential customer complaints. Customer needs identified through a Q-Post Tour are reflected for improvement of the designs of new and existing products, and the results are announced to customers. This also allows sales and service divisions and plants to establish a more cooperative process, ensuring business continuity and improved efficiency.

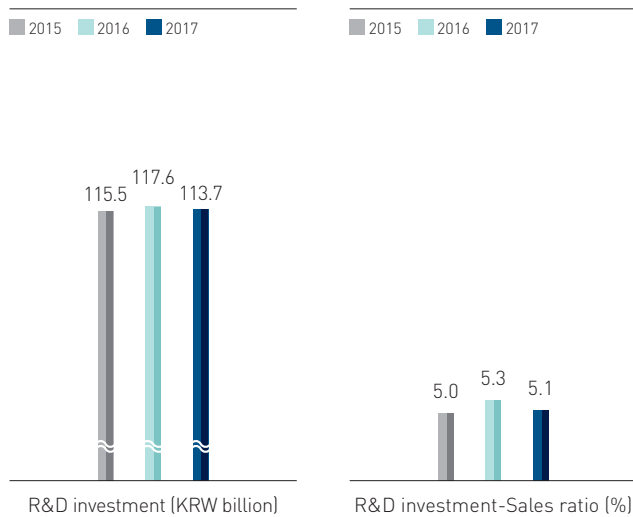
| Category | 2015 | 2016 | 2017 |
|----------------------|------|------|------|
| VOC improvement rate | 86.2 | 86.1 | 89.4 |

R&D activities

As a total solution provider for smart power and automation, LSIS has been striving to further promote core businesses and secure next-generation growth engines. In particular, we are concentrating resources on R&D in order to proactively respond to rapidly-evolving digital transformations and provide leadership in the smart energy and factory markets. To this end, a system to enhance R&D productivity has been established, maximizing business performance and efficiency. LSIS maintains R&D centers in Anyang, Cheongju, and Cheonan, Korea, and well as an additional R&D center in the plant in Wuxi, China that creates synergies between research and production.

R&D investment

Since LSIS is fully aware that R&D is the key to corporate competitiveness, five percent of sales is invested in R&D activities to develop next-generation products, new businesses, and core technologies.



Securing R&D capabilities

Advanced development system | LSIS is working on innovating its R&D methodologies by establishing an advanced development system. This reliability-based system will allow us to secure the platform, common core modules, and parts required for product development through prior development activities and consequently significantly improve development lead time. In addition, efforts are being made to reinforce key platform technologies, including their reliability, to promote R&D efficiency.

Enhance technological expertise through Tech Map | Based on data-driven R&D management, Tech Map is applied as a tool to check pertinent levels of technology and human resources and develop and manage them to meet business goals. It aims to provide an enterprise-wide communication channel and serve as a means for accelerating the efforts to achieve our vision.

Tech Scouting | The Tech Scouting program is dedicated to identifying and securing technologies related to the company's R&D strategies for mid-/long-term future businesses. To increase R&D productivity and efficiency and secure external technologies, it is pursuing technological cooperation with domestic and international partners.

R&D support | LSIS maintains rewards programs to motivate employees to focus on R&D activities and promote a performance-driven corporate culture. Every year, the Best R&D Award is given to outstanding R&D projects. The project winning first prize is submitted to the Tech Fair organized by LS Group so that the performance can be shared and celebrated. Meanwhile, LSIS R&D Campus boasts cutting-edge infrastructure that helps researchers enhance their technological expertise.



Creative Zone

Key R&D performance in 2017

ESS Modular Scalable PCS

ESS G1 Platform PCS, a new platform designed in order to secure a competitive edge in the ESS market, was honored by winning the Power Electronics Manufacture of the Year Award from the Korean Institute of Power Electronics. During its creation, part sharing and software development systems were established and external organizations were involved in product development and verification in order to ensure reliability. As the ESS market for renewable energy and for utilities to stabilize systems is expected to grow with the government's plans to promote energy, it will significantly contribute to boosting LSIS's ESS business.



Expanding the line-up of LVDC products (up to 1,500V)

Due to the growing role of renewable energy, there has been an increase in DC load to help improve energy efficiency and facilitate connection to distributed power systems. In response, LSIS is developing new DC products based on our established AC technologies. The product line-up has been expanded up to 1,500V to lead the LVDC

market. In addition, our DC platform technologies are in line with the ESS/PV market trend towards higher voltage and larger capacity and are helping us gain a competitive market advantage and prepare for the future.



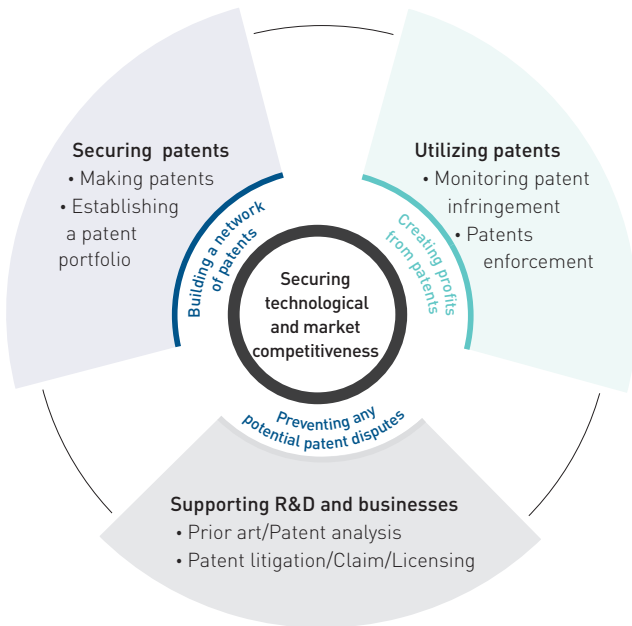
Big data and AI-based technologies

To keep pace with the fourth industrial revolution's new industrial platforms using digital technologies, LSIS has been working to lay a foundation for smart and specialized solutions with an IoT and cloud computing platform for power and automation systems. In particular, the study of energy efficiency and productivity using big data analysis has confirmed the possibility of enhancing productivity and quality while saving process energy. Based on the results, a range of studies are being conducted to devise a new business model for smart energy, smart factories, and diagnosis.

Intellectual Property strategy

The strong portfolio of intellectual properties at LSIS allows us to create both tangible and intangible profits, strengthening our competitiveness in global businesses. In an effort to hone technological competitiveness in the midst of the fourth industrial revolution, we have been securing IPs in the fields of IoT, big data, and ICT convergence and integration technology. Furthermore, cross-functional IP analysis between R&D and IP teams is being conducted to prevent any potential disputes with competitors.

Notably, in 2016 LSIS was ranked for the first time among the Top 100 Patent Applicant Companies by the European Patent Office as a result of strengthening our international IP portfolio in alignment with our global business strategies. Our IP is regularly evaluated in order to explore its full utilization. We also take part in efforts for shared growth by transferring IP to SMEs for free. A variety of training programs are provided to nurture IP experts, and LS-IP Forum consisting of IP departments from LS Group subsidiaries is operated to enhance IP competitiveness at the Group level.



IP portfolio

As LSIS products are gaining market recognition for their globally competitive technology, IP disputes and copy-cat products are on the rise. In this regard, strategic IP activities to strengthen global competitiveness are being conducted for the products and technologies identified as future growth engines.

(as of the end of 2017) (Unit: case)

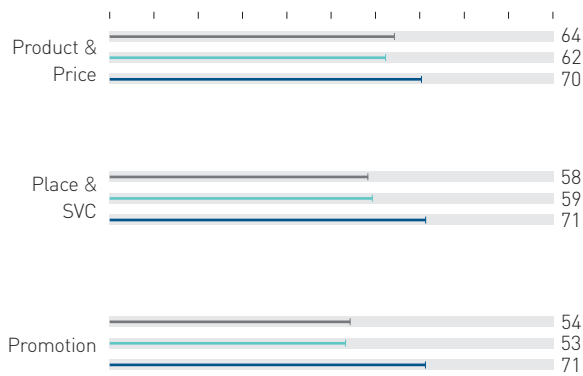
| Category | Rights | Registration | Application | Total |
|---------------|--------|--------------|--------------|--------------|
| Domestic | Patent | 2,112 | 1,464 | 3,576 |
| | Design | 154 | 1 | 155 |
| Total | | 2,266 | 1,465 | 3,731 |
| International | Patent | 2,755 | 1,795 | 4,550 |
| | Design | 191 | 11 | 202 |
| Total | | 2,946 | 1,806 | 4,752 |

Customer satisfaction survey

LSIS has been conducting an annual customer satisfaction survey on its primary products. In the 2017 survey, 200 customers at home and abroad were asked about their satisfaction with switchgears. LSIS scored 70.5 points on average (70 points for product and price, and 71 for logistics and service), higher than its competitors. In addition, the survey on product quality and reliability for PLC and drivers and customer interviews both indicate that satisfaction is higher than in 2015 for reliability, quality, robustness, miniaturization, and service handling.

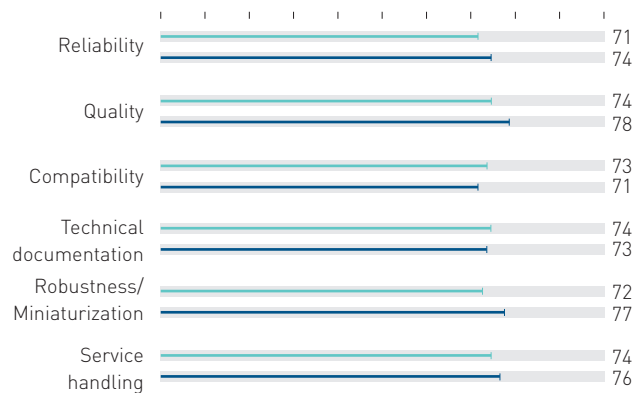
Customer satisfaction survey results on switchgears (Unit: point)

■ Company A ■ Company B ■ LSIS



Customer satisfaction on industrial automation (Unit: point)

■ 2015 ■ 2017



EXHIBITIONS AND SEMINARS

LSIS strives to create additional opportunities to meet with customers by regularly participating in domestic and international exhibitions and seminars to improve customer communications.

JANUARY

→ 2017 AHR Expo (Las Vegas, US)

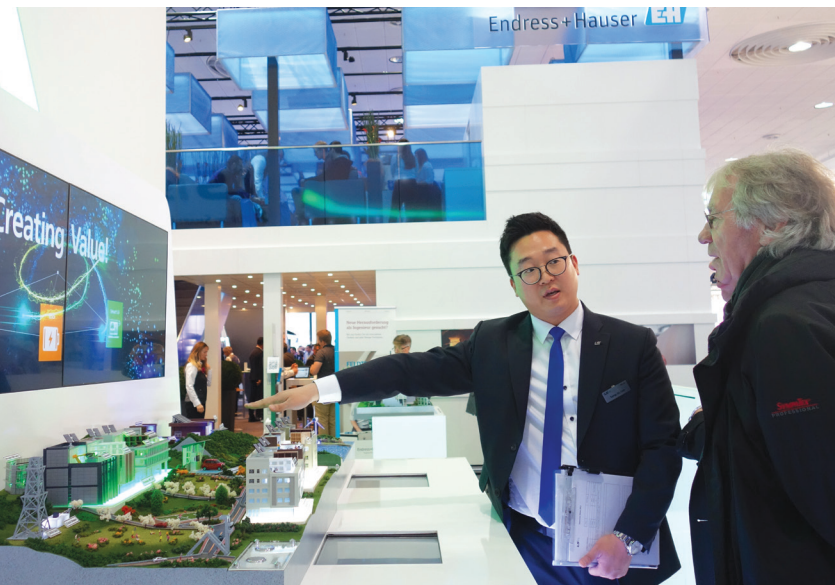
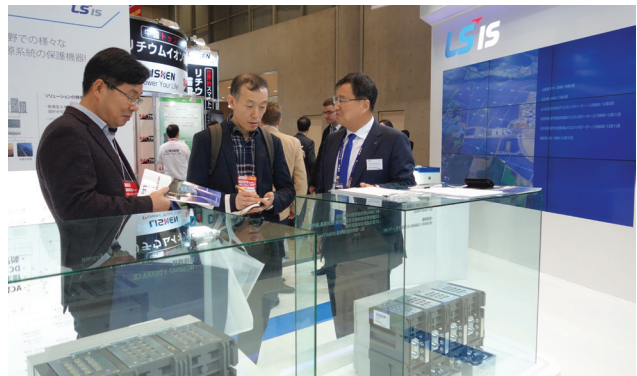
The largest HVAC exhibition is organized by ASHRAE. It is held every year in major cities in the US to share industry trends and announce new technologies. LSIS joined this exhibition as part of its strategy of targeting the North American market and presented products and solutions dedicated to automation and power.



FEBRUARY

→ INT'L Smart Grid EXPO (Tokyo, Japan)

As part of World Smart Energy Week, the largest energy exhibition in Asia, the International Smart Grid EXPO 2017 was held. LSIS demonstrated its performance in projects conducted in Japan, promoting its image as a company with EPC competence for supporting PV+ESS power production.



APRIL

← HANNOVER MESSE 2017 (Hanover, Germany)

At this expo held on the theme of Integrated Industry-Creating Value, LSIS introduced integrated solutions spanning all of its businesses and promoted its brand among participants as a global smart energy company.



SEPTEMBER - OCTOBER

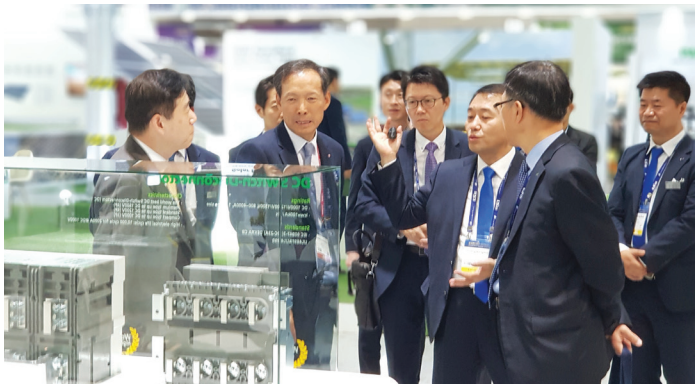
← Roadshow utilizing a five-ton wing body truck (Southern part of Korea)

LSIS visited plants, industrial complexes, and government offices around the southern part of Korea to introduce new products, provide consulting services, and host seminars. For these activities, a customized five-ton wing body truck was used. Seminars were also held in 16 plants and eight universities.

OCTOBER

→ Korea Smart Grid Week (COEX, Seoul)

At Korea Smart Grid Week, the world's largest smart grid exhibition, LSIS promoted its advanced business models alongside its smart energy and technical competence as a total solution provider for the global market.



NOVEMBER

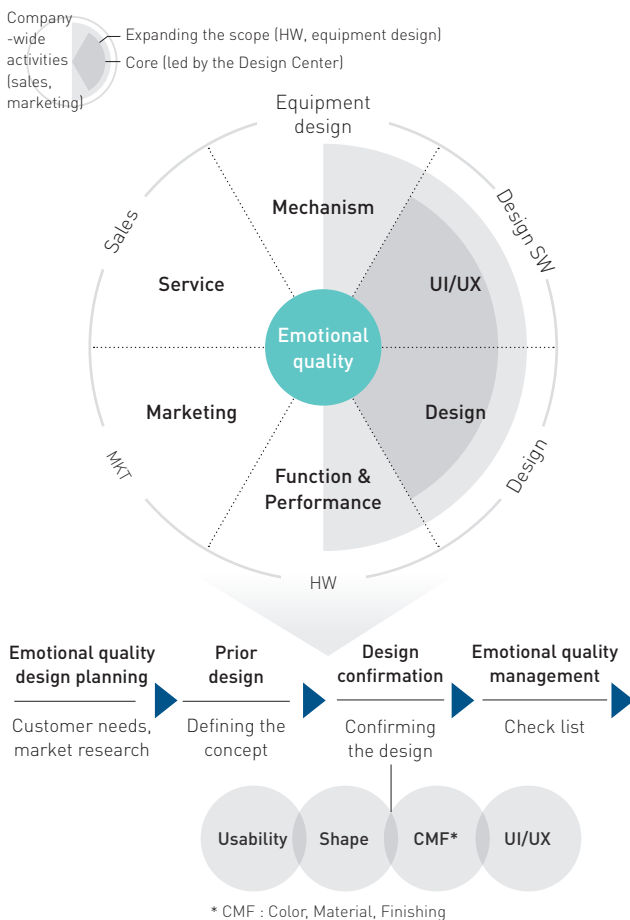
← BIXPO 2017 (Kimdaejung Convention Center, Gwangju)

At the BIXPO, a venue for global power-sector technology exchanges organized by KEPCO, LSIS promoted its technical prowess with ESS modular scalable PCS, floating photovoltaics, PV+ESS package solutions, Digital IPP, DC solutions, PDPS, and smart MV solutions.

Design management

Established in 2015, LSIS Design Center is the Korean industrial equipment manufacturing industry's first design center. It embodies our efforts to introduce customer-oriented design in a manufacturer-oriented industry where speedily reflecting customer needs can be a challenge. The center is operated under the direct control of the CTO in order to swiftly react to specific and sophisticated customer needs. Its efforts to actualize the company's technical prowess and devise with customer-focused designs have enhanced design quality, contributing to strengthening product competitiveness and enhancing our corporate image. The center ultimately aims to achieve sustainable designs taking into consideration the preferences of customers and the user experience. Going forward, more efforts at sustainable design will be made for customer communication and value creation.

Activities for emotional quality



2017 GOOD DESIGN AWARD

GIPAM 3000

GIPAM 3000 is a digital power monitoring device that provides a comprehensive monitoring of switchgears in the electrical room of buildings with high power consumption. The design for the drawable handle utilizing the principle of levers allows engineers to conduct maintenance without opening the switchgear door where high voltage current is flowing. Moreover, a disconnecting action simultaneously is triggered to physically block the current, significantly increasing usability and safety. The front sheet is made using the UV molding technique which has a sophisticated hairline texture. It is highly resistant to pollutants and scratching.



Gridsol MG

Gridsol MG, established through a national project by the Ministry of Trade, Industry, and Energy is the first connected microgrid operations system implemented at an educational institution in Korea (Seoul National University). In its UI/UX, the flow of energy and the operational status are displayed in an animated graphic, and the consistent arrangement of colors with no spurious frills helps operators intuitively understand the data. In addition, dark colors are mostly used in order to minimize eye fatigue.



Customer information protection

To protect data, including customer information, from hacking and viruses, security solutions are implemented and pertinent training is provided on a regular basis. Database encryption and access control solutions are in place to prevent any leakage of personal information, and the systems are monitored 24/7 by a private security company. Employees of LSIS and its suppliers must periodically submit a security pledge and undergo awareness-raising training. In 2018, consultations are under way to expand the scope of protection for customers' information.

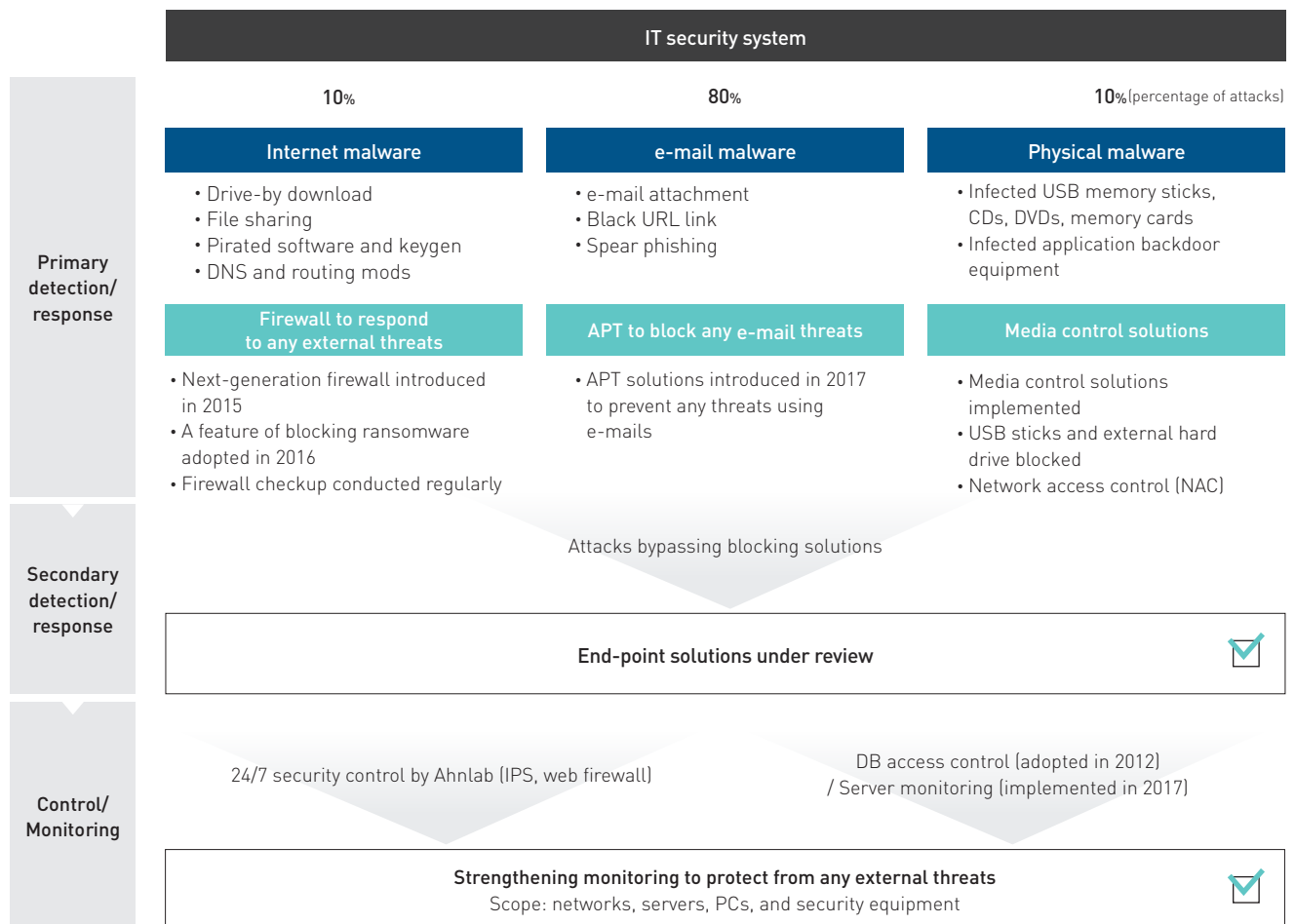
Security training

Security training is provided for all employees, including R&D, sales, and production team members, at least once per year. Topics such as software compliance, ransomware protection, and privacy protection are all covered during this one-hour training.

Employees who handle personal information, including sub-contractors, are required to take part in the training twice per year, and an inspection is conducted at least once in accordance with the Personal Information Protection Act.

Related promotional materials are uploaded regularly on the company intranet and security posters are hung in public areas at all LSIS plants to expand awareness.

Information protection process



SAFETY AND ENVIRONMENT MANAGEMENT



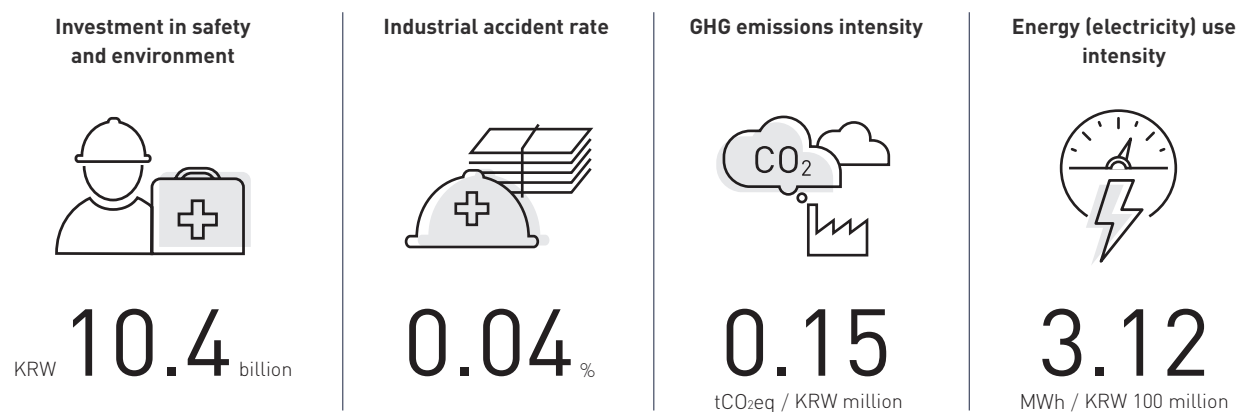
Gi-Seon Kim /
Safety & Environment Team
Leader, Plant Supporting Group

COMMITMENT

Assuming corporate responsibility for safety and the environment is key in business management today and essential for sustainability management. LSIS has been working to establish an environmentally-friendly and safe process throughout the value chain all the way from product development to manufacturing. The importance of safety management has grown with the industrial accidents that have occurred at a number of sites in recent years in Korea. In this regard, intensive safety training, campaigns, and worksite improvement activities are being conducted at LSIS plants and suppliers. To fulfill our responsibilities, we will keep working to strengthen the foundation for safety and environmental protection.

A number of industrial accidents have occurred recently in Korea, mainly at construction sites. LSIS has strengthened its safety management at both its plants and project sites. In 2017, the Cooperation for Coexistence Program was implemented to expand the scope of these efforts to suppliers. We will continue to fulfill our corporate responsibility for safety and the environment by establishing a standard for green products, prohibiting harmful materials, and investing in product development.

KPI in 2017



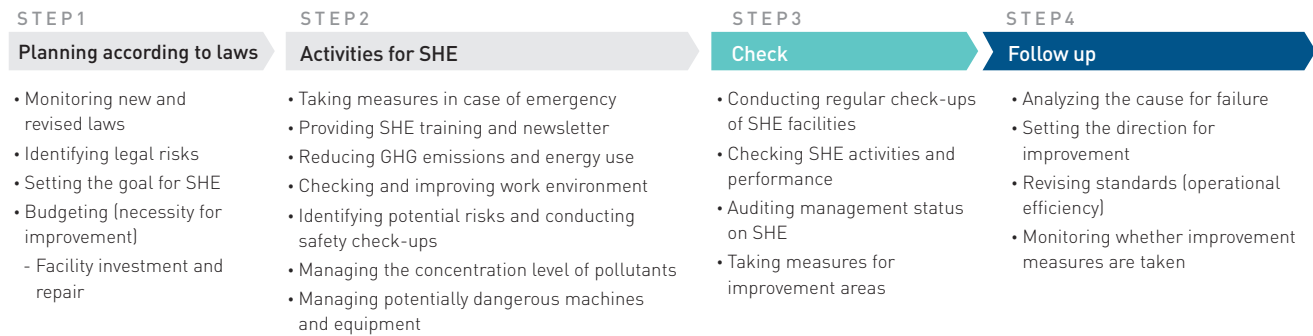
Key performance and targets

| | |
|----------------------------|---|
| Targets for 2017 | <ul style="list-style-type: none"> • Strengthen safety management at project sites • Identify safety risk factors and conduct inspections by theme • Reinforce management on harmful substances and potentially dangerous equipment |
| Performance in 2017 | <ul style="list-style-type: none"> • Promoted safety management at project sites • Provided safety and environmental support to suppliers (Cooperation for Coexistence Program) • Conducted a company-wide safety/health/environment diagnosis (SHE Control Tower) • Improved fire-fighting equipment in vulnerable areas (fire compartment in utility pipe conduit at plants) • Reinforced safety management in handling deadweight cargo using a crane |
| Targets for 2018 | <ul style="list-style-type: none"> • Implement a safety management grade system by production line • Improve processes that safety risks exist • Operate eco-friendly plants • Support suppliers in acquiring the certification for the risk evaluation system • Strengthen emergency response measures |

Safety and environment management

LSIS is committed to achieving the vision of G3 (Global, Green and Great) SHE (Safety, Health, and Environment) Company by establishing an accident- and pollution-free workplace. To this end, we make our utmost efforts to strengthen environment and safety management and enhance operational efficiency.

Safety and environment management



Strategy and vision

To respond to the tightening of domestic and international regulations, LSIS is operating a system for safety, health and environment in order to ensure plants free from accidents, pollution, and loss.

Declaration on safety, health and environment management

LSIS will proactively implement the followings to establish an environmentally-friendly, safe and healthy workplace as a foundation for acting on our management philosophy of Greater Value Together.

SHE Management policy

Promoting green plants

- Minimize environmental impacts on the whole process from product design to disposal to fundamentally prevent pollution.
- Apply green production technologies to conserve resources and energy.
- Comply with related international conventions, laws, corporate standards, and requirements.
- Conduct environmental assessment regularly to analyze performance and improve environment management system.
- Provide employees with awareness-raising training and encourage them to be actively engaged in environmental conservation efforts.

Creating a safe and healthy workplace

- Consider the impact on safety and health first in regards to products, work areas, equipment, processes and technologies
- Set the management standards higher than international conventions, laws, regulations, and requirements and act on them for continuous improvement.
- Use appropriate resources to improve safety and health and train employees to encourage them to join the efforts.
- Identify potential risks, make action plans to minimize them, and implement the plans for improvement.
- Conduct activities to promote health and prevent accidents thereby enhancing productivity

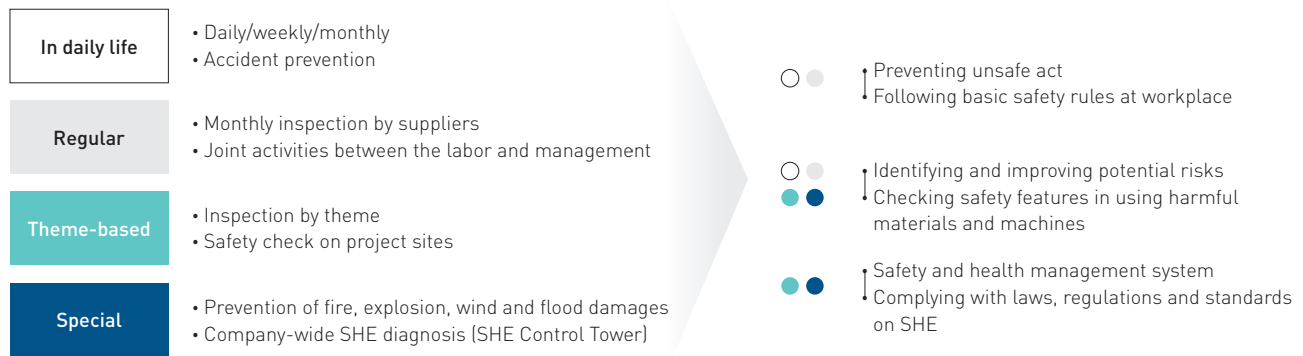
SHE management system

| | |
|--------------------|---|
| Safety | Accident-free plants and pleasant work environment |
| Health | Health promotion and management |
| Environment | Green company, and eco-friendly products and services |

SHE inspection activities

To ensure accident-free plants, all LSIS employees voluntarily conduct safety inspections to create a safe and pleasant work environment. The activities for identifying and minimizing risks are periodic, non-periodic and theme-based. In 2017, an inspection of deadweight cargo handling was conducted on the High Voltage Switchgear Production Team at the Cheongju plant in cooperation with the Korea Industrial Safety Association to eliminate potential risks and devise a secure safety upgrade.

Safety inspection on plants

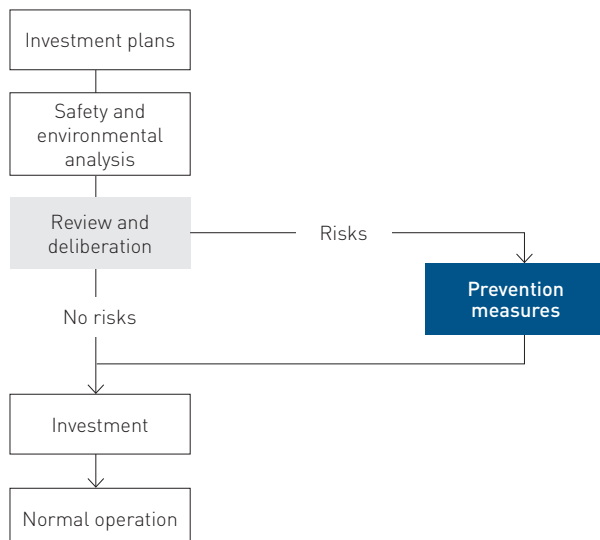


Preliminary SHE inspection

In order to comply with laws and regulations on new equipment, pollutant discharge, hazard risk prevention planning, and KC (Korea Certification), a preliminary SHE inspection is conducted.

Investment in environment and health

LSIS endeavors to minimize the impacts on environment, safety, and health in the entire product life cycle from production to disposal by developing green products and enhancing processes. To this end, continuous investment is made to conserve energy and eliminate environment and safety risks.



Response to climate change

Climate change strategy

In response to international climate change regulations, LSIS is taking part in a variety of activities. We announced a company strategy to manage GHG emissions by joining the CDP in 2011. From 2014, when the Cheongju plant was subjected to the Energy Target Management System by the government, activities have been conducted based on GHG reduction and energy savings plans.

Verification of GHG emissions

GHG emissions and their sources are being monitored based on LSIS's calculation guidelines and inventories. Since the Cheongju plant falls under the government's Energy Target Management System, third-party verification is conducted at the plant.

(Unit: tCO₂e)

| Category | | 2015 | 2016 | 2017 |
|---------------------------|---------|---------|---------|---------|
| GHG emissions (by source) | Scope 1 | 226,975 | 186,792 | 250,704 |
| | Scope 2 | 25,706 | 26,646 | 25,553 |
| | Total | 252,681 | 213,438 | 276,257 |

* GHG emissions in 2017 has increased year on year due to a rise in production of GIS using insulating materials.

Energy conservation and GHG emissions reduction

Electric power and LNG are used in production processes, heating, and air-conditioning. There were concerns over an increase in electric power consumption due to the investment in production facilities and air-conditioning and heating systems. However, steady conservation efforts at plants has helped maintain a similar level compared to the previous year. On the other hand, LNG use rose due to cooling and air-conditioning facilities and the manufacturing process at the Busan plant.

| Category | Unit | 2015 | 2016 | 2017 |
|--------------------|--|--------|--------|---------------|
| Energy Electricity | MWh | 55,252 | 57,150 | 57,153 |
| | MWh/KRW 100 million (generation cost) | 3.09 | 3.30 | 3.12 |
| LNG | km ³ | 2,189 | 2,136 | 2,337 |
| | km ³ /KRW 100 million (generation cost) | 0.12 | 0.12 | 0.10 |

Photovoltaic power generation system and ESS | To maximize energy efficiency using renewable energy at the Busan plant, a 910 kW photovoltaic power generation system has been installed on the roof of the production factories and utility buildings. The system is expected to generate 1,140 MWh of electricity and reduce 900 tCO₂eq of GHG. In addition, 2.7 MW ESS has been implemented to efficiently manage the remaining power.

High-efficiency lighting installation | Lighting facilities (metal/halogen) in existing production buildings are being replaced with highly efficient LED lights. Old utility equipment will also be replaced to conserve energy.

Pollutant management

Air pollutants | Air pollution prevention facilities are being operated for pollutants generated by the production process. Air pollutants are tested on a regular basis to ensure that the emissions level remains below 50 percent of the legal limit. Optimal prevention technologies will be introduced and applied to older facilities according to the medium-/long-term plan.

Water use and wastewater disposal | Water required for the manufacturing process, human needs, and fire suppression is

supplied by the respective local governments. Wastewater is stored in separate water collection systems and disposed of by third-party contractors. In addition, sewage flows to the pertinent treatment plant are being monitored to check their environmental impact.

Waste management | Wastes generated in the production process are sorted for recycling based on their characteristics and disposal methods and then treated by third-party contractors. In 2017, more than 80% of wastes were recycled.

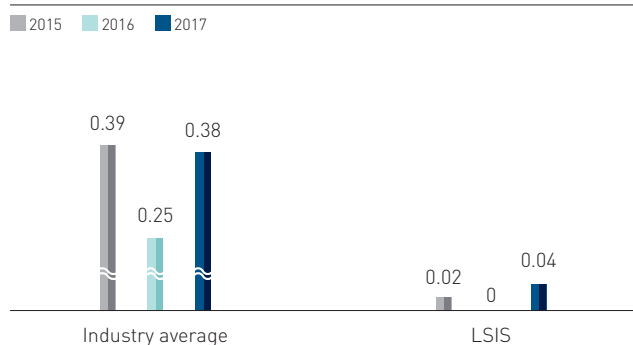
Chemical substances | For the chemical substances used in LSIS plants, an inventory has been established to manage Material Safety Data Sheets (MSDS). Training is also provided for those who handle chemicals in order to educate them on the risks posed by these substances and help them swiftly respond to any potential leakage accidents.

Workplace safety management

Accident-free plants

Safety is the top priority at industrial sites. In order to establish an accident-free workplace, LSIS introduced a company-wide safety and health management system in 2008 and has conducted risk evaluations and improvement activities based on redefining roles and responsibilities. Employees at the plants take part in activities designed to minimize potential risks, and training is provided by position level in an effort to create a safe and healthy workplace.

Average industrial accident rate (Unit : %)



* The 2017 average above is based on LSIS calculation criteria. The government agency in charge is currently working on the average.

Safety awareness activities

To promote safety awareness among LSIS employees, a safety evaluation system has been incorporated into the company-wide target management system (MIP) for teams and departments. At the same time, a safety training performance evaluation is being applied to enhance the quality of the training. Managers and supervisors are required to complete online training courses so that they can manage worksites based on specialized safety knowledge. Moreover, a variety of promotional activities, including safety campaigns, suggestions, and prizes, are conducted as part of the efforts to encourage each employee to take the initiative in safety compliance.

Supporting suppliers

Employees from in-house suppliers appointed as persons in charge of safety are trained and cooperate with LSIS in efforts such as joint safety and health measures and theme-based inspections to prevent industrial accidents. An emergency reporting system has also been implemented to minimize damage by responding at an early stage. LSIS is providing support for evaluations to better eliminate potential risks of accidents at worksites. For external suppliers, an annual Safety, Health, and Environment (SHE) consultation is provided to help them promote health and safety at worksites. Support activities also include safety inspections and certification of potentially dangerous machines and equipment on lease.

Safety and health training

To raise safety awareness and promote a culture of safety at LSIS plants, intensive training is offered by position level. Monthly regular training and annual training for managers and supervisors are provided online and offline. Employees



Safety and health campaign

using cranes and forklifts at worksites are required to have a license for operation issued and receive the pertinent training.

| Category | Details | Frequency | Note |
|--------------|-----------------------------|--------------------------|---|
| Basic | Introductory course | Year-round | New employees |
| | Regular training | Monthly (offline/online) | All employees |
| | Manager/Supervisor training | Annual (offline/online) | Managers/Supervisors |
| | Special training | Year-round | Employees handling potentially dangerous machines |
| Professional | Crane operator training | Year-round | License issuance for operation |
| | Forklift operator training | Year-round | License issuance for operation |

Safety Council in the Plant Supporting Group

The Safety Council is held monthly with the aim of strengthening safety at worksites. In the council led by the head of the Plant Supporting Group, plant managers and heads of teams and departments share their safety inspection results, identified risks and best practices to further promote safety at all LSIS plants.

Safety and health campaigns

We have been conducting campaigns to raise awareness on safety. In 2017, LSIS declared ten basic rules for safety and health and has promoted them to all employees.

Ten basic rules for safety and health

Safety & Environment Team, LSIS

1. Check whether the equipment has completely stopped and then take measures to correct errors.
2. Strictly control and prohibit access to areas where cargo is being lifted.
3. Install safety handrails and bars and wear safety gear for work involving heights.
4. Double-check whether power has been switched off before performing electrical work.
5. Comply with the speed limit of 10 km/h when operating forklifts and loading vehicles.
6. Apply a safety cover and ground any charging unit.
7. Attach a protective cover to areas with a risk of crushing or jamming.
8. Wear the safety gear required for each specific task
9. Apply locking devices and attach safety warnings to any part under repair.
10. Keep worksites clean and well organized and secure the space needed for safe passage.



Seeing the risks is the starting point for ensuring safety.

Improving the work environment

To create a pleasant working environment, strict criteria are applied to each plant based on the principles of compliance management. LSIS has been commissioning external institutions to biannually measure harmful elements in the working environment. Improvements are made based on the results, including replacing tools, developing technologies, and investing in facilities.

Promoting employee health

For the purpose of improving employee health, a variety of programs are being operated. Comprehensive medical check-ups are provided for employees and their spouses. Depending on the results, medical expenses of up to KRW 10 million are subsidized for treatment and consultation on healthcare. Support is provided for those who are diagnosed as falling into a high-risk group for four major diseases (including high blood pressure and diabetes), such as medical treatment, exercise programs, and work adjustment. Moreover, diverse healthcare programs have been put in place for smoking cessation, losing weight, and preventing cardiovascular diseases. CPR training is provided to all employees in order to help them quickly respond to emergency situations. In addition, healthcare centers equipped with a body composition analyzer, ultrasonic treatment equipment, and blood analyzer are being operated at all LSIS plants to help employees detect health issues early and receive appropriate treatment.



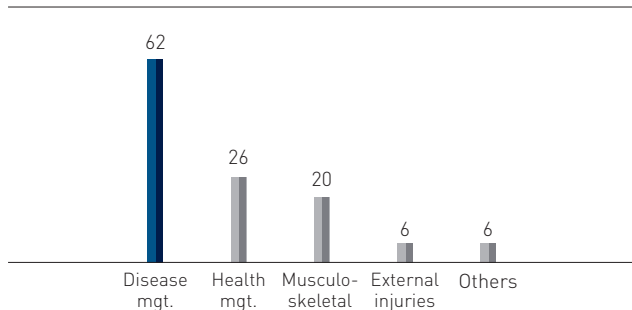
Enhancing the work environment



AED training

| Category | Handling harmful factors | | Others |
|-----------------------------|---|-----------------------------|-----------------------------|
| | Yes | No | |
| Employees and their spouses | Comprehensive check-ups (annually conducted for employees aged 35 or older) | | |
| | Comprehensive check-ups (biannually conducted for their spouses) | | |
| Regular check-ups | General examination | General examination | General examination |
| | Special examination | Applicants | - |
| New employment | Check-ups for new employees | Check-ups for new employees | Check-ups for new employees |
| Job assignment | Check-ups for employees assigned to new positions | - | - |
| Symptoms | Whenever necessary | - | - |

Health care center visit (Unit: %)



Safety management at project sites

With the aim of strengthening prevention by identifying safety, health, and legal risks at project sites, regular inspections and safety patrols are provided by the Safety and Environment Team. In addition, construction managers and suppliers at project sites are subject to annual safety training, and regular safety training is provided to all employees at the site to promote a culture of safety.

Management on the use of harmful materials

LSIS manages the use of harmful materials by tracking annual usage by material and determining the applicability of new materials through reviews. For their own safety, employees handling materials are informed of their potential for harm through special training and MSDS. In addition, working environment measurements and special examinations are conducted in parallel to ensure a pleasant and healthy environment for employees.

Safety management at company research centers

In accordance with the revision of the Act on the Establishment of Safe Laboratories in July 2015, dedicated lab safety managers have been appointed and safety management regulations have been established to prevent potential accidents. The appointment of a safety manager and person in charge for each research lab encourages researchers to join the efforts to promote safety.

Fire prevention system

LSIS has created a map of zones vulnerable to fire and explosions in order to take a systematic approach to managing the related risks in all its plants. It has been working to meet fire safety levels set by insurers based on the NFPA* safety standards. Furthermore, a Smart Management System has been implemented to effectively manage the fire protection system and prepare for emergencies at plants.

* National Fire Protection Association

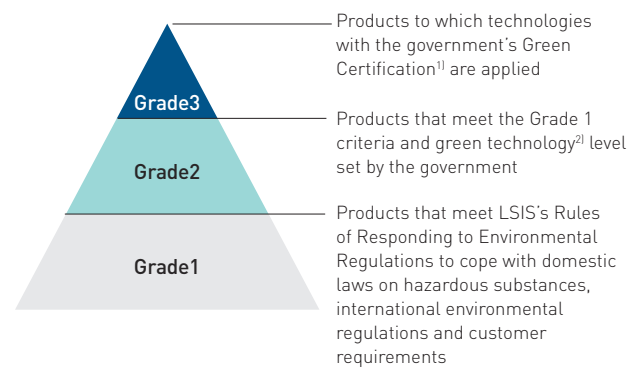
Emergency response procedures

Based on scenarios created for specific accident types as preparation for emergency situations at all LSIS plants, training on emergency evacuations and response measures are periodically provided. Through this training, employees learn how to respond swiftly and safely to emergency situations and how to do CPR. Fire drills are also conducted regularly to promote safety awareness.

| | |
|--------------------------------|--|
| Accident occurrence | <ul style="list-style-type: none"> Disseminating information on the situation Identifying the accident type and analyzing severity |
| Emergency measures | <ul style="list-style-type: none"> Convening the Crisis Management Council Evacuating and taking emergency measures |
| Accident investigation | <ul style="list-style-type: none"> Analyzing the cause Conducting activities to prevent additional accidents |
| Recovery activities | <ul style="list-style-type: none"> Establishing and applying a recovery plan Implementing a plan for business continuity |
| Reoccurrence prevention | <ul style="list-style-type: none"> Making a reoccurrence prevention plan Reviewing the effectiveness of the accident response system |

Green product standards

To enhance its position as a green energy company Futuring Smart Energy and to actualize sustainability management, LSIS has defined its Green Product Grade Model based on which eco-friendly products are categorized by grade. All LSIS product models are evaluated and classified as either Grade 1, 2, or 3 based on the level of eco-friendliness. This approach will facilitate the development of customer-oriented green products.



- Green Certification** : This is a governmental accreditation system to specify green technologies and businesses according to the Framework Act on Low Carbon Green Growth with the aim of expanding the participation of the private sector in the green industry and promoting the growth of technology markets and industries.
- Green Technology** : This includes technologies for GHG mitigation, effective energy use, clean manufacturing, clean energy, resource recycling, and eco-friendliness that help conserve and efficiently use energy and resources in the entire process of social and economic activities thereby minimizing GHG emissions and pollutants.

Eco-friendly product development process

LSIS is operating an R&D process to develop additional green products. During the planning stages, an R&D plan should be created that considers any environmental implications. Existing and new parts and components are tested for environmentally harmful substances, and those that fail cannot be applied to products. In the development stages, a design review is held at which department heads of and working-level employees check the qualitative and quantitative performance of the green plan. In the final report, whether or not the products developed qualify for the company's green product grade is determined by considering RoHS, Green Technology, and Green Certification.

SHARED GROWTH WITH SUPPLIERS

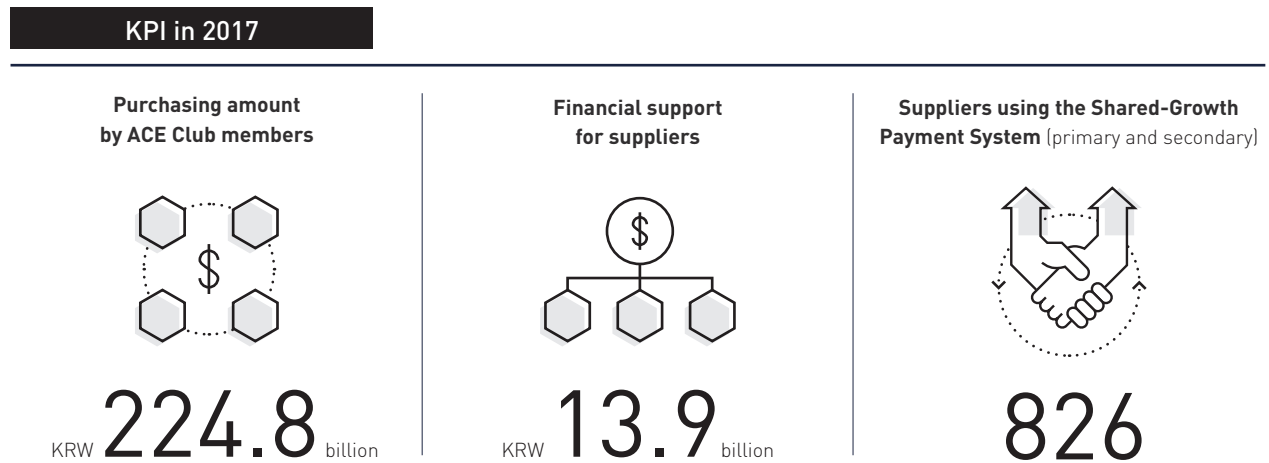


Gi-Seok Yun /
CEO, Hangil EST

COMMITMENT

To meet the high quality standards at LSIS, Hangil EST has been cooperating with its purchasing, design, and production technology teams. This has helped us raise our competitiveness in terms of quality. In 2017, new products were developed through a variety of LSIS support activities, resulting in improved technology development for Hangil EST and price competitiveness for LSIS. I firmly believe that LSIS's proactive communication efforts with its suppliers that behind this success lies. I hope this relationship based on steady and flexible communication efforts will serve as a basis for shared growth.

Thinking of its suppliers as partners in achieving shared growth, LSIS is supporting them in increasing their competitiveness in the global market. In 2017, activities such as ACE Club Innovation Exchanges for working-level employees and ACE Club Reflection were launched, diversifying communication channels, and expanding the scope of such activities.



| Key performance and targets | |
|-----------------------------|---|
| Targets for 2017 | <ul style="list-style-type: none"> • Conduct activities to comply with fair trade and related laws • Support suppliers to increase global competitiveness • Facilitate channels for communication and information-sharing • Respond to conflict minerals regulations |
| Performance in 2017 | <ul style="list-style-type: none"> • Organized activities for legal compliance • Qualified for the Excellent grade in the share-growth index • Expanded the scope of communication and diversified channels • Established a response process and system for conflict minerals |
| Targets for 2018 | <ul style="list-style-type: none"> • Strengthen activities to comply with the Fair Trade Act and Subcontracting Act • Support suppliers to gain competitiveness • Promote a culture of shared growth |

Establishing a culture of fair trade

Signing and fulfilling a contract

In compliance with the Fair Trade Act and Subcontracting Act, LSIS has been signing a Basic Subcontracting Contract and Subcontracting Fair Trade Agreement with suppliers on an annual basis. In 2017, we concluded this essential contract with 549 subcontractors. The contract is based on the Standard Subcontracting Agreement as recommended by the Korea Fair Trade Commission, reflecting in particular the article for promoting suppliers' right to fair trade. In addition, the pledge to implement ethical management is included as part of the contract for their compliance. Meanwhile, the Subcontracting Fair Trade Agreement was signed with 337 suppliers as a reflection of our commitment to shared growth.

Activities to prevent violations and promote compliance

Four action plans for shared growth | The plans consist of: signing contracts through a fair process; ensuring a fair supplier selection process; operating an internal subcontracting audit committee; and issuing and archiving documents. These are reflected in company standards such as the rules on domestic procurement management and supplier management. In addition, to prevent any violations of subcontracting laws, a monthly internal audit committee is convened by the CPO to review the risks of delayed payment to suppliers, examine the evaluation of newly-registered suppliers, and check the appropriateness of the supplier transaction cancellation process.



Internal audit committee on subcontracting

Dispute resolution mechanism | LSIS maintains a mechanism for the swift resolution of disputes between the company and its suppliers in regards to non-payment or delayed payment, as well as unfair receipt of goods, returns, price decisions, and reductions. Disputes occurring within three years after the completion of a transaction can be subject to the resolution mechanism. In addition, complaints from suppliers are collected on a quarterly basis and transferred to the pertinent departments or teams for resolution. TOPS, an internet portal for shared growth, features the Subcontracting Dispute Resolution, Bulletin Board for Communication, and Cyber Reporting Channel functions.

Training on the Subcontracting Act | To comply with the Subcontracting Act and promote a culture of fair trade, annual training is provided for employees of LSIS and its suppliers. In 2017, employees in charge of procurement and design who work closely with suppliers took part in training organized by the Legal Affairs Team. The scope of employees receiving training will be further expanded in the future. In addition, case-based training on compliance and ethical management is offered at the Procurement Build-up meeting in order to raise awareness. We will continue these efforts to prevent unfair business transactions.

Post-hoc analysis of the legality of subcontracting deals | For self-monitoring of compliance with related laws, LSIS biannually reviews business transactions with suppliers who have signed the Subcontracting Fair Trade Agreement. According to the monitoring for 2017, LS concluded the Subcontracting Basic Contract with 337 suppliers and there was no case of an unfair price decision or addition of unjust special provisions. In cases of changes in design and raw materials prices, prices were adjusted accordingly while a technological information request was issued upon prior agreement with suppliers. Apart from honoring the payment within 60 days of receipt, LSIS set the expiration date for alternative payment of bills to be within 60 days of receipt and abided by it for all trades.

Supporting suppliers in securing competitiveness

ACE Club

Member selection and support | The ACE Club was launched in 2008 as a program to select suppliers based on three areas: taking swift action (Activity); pushing the envelope (Challenge); and achieving high performance as superior partners (Excellence). LSIS provides guidance on quality, production, and overall business management based on its existing expertise in order to cooperate with suppliers as partners for shared growth. A comprehensive evaluation is conducted for membership, considering product quality, on-time delivery, cost competitiveness, and advocacy of shared growth.

ACE Club members benefit from preferential payment conditions and activities for productivity improvement and benchmarking. As a result, LSIS was awarded a citation from the Minister of SMEs and Startups at the 2017 Corporate Partnership Week organized by the KCCP in recognition of its contribution to promoting supplier associations as a communication channel.

| Category | 2015 | 2016 | 2017 |
|--|-------|-------|-------|
| ACE Club membership | 19 | 20 | 19 |
| Purchasing amount (KRW billion) | 214.4 | 222.5 | 224.8 |
| Average purchasing amount per member (KRW billion) | 11.2 | 11.1 | 11.8 |
| Companies with purchasing amount of over KRW 10 billion | 9 | 9 | 9 |

CEO seminars | LSIS has held seminars on business strategy, finance, marketing, leadership, and economics for the



CEO seminar

CEOs of ACE Club member companies. At these seminars, experts are invited as special lecturers and LSIS executives join in as speakers to share and discuss key management issues. In April 2017, a special lecture was provided on the theme of Tax Management for SME CEOs. It focused on examples related to tax affairs and laws and regulations. This program provides an opportunity to promote management expertise and leadership among SME CEOs.

Benchmarking activities for innovation | LSIS is offering programs through which suppliers make benchmarking visits to leading manufacturers at home and abroad to offer them opportunities to heighten their innovation and global competitiveness. From 2008 to 2016, a total of 288 supplier employees had a chance to observe the rapidly changing market environment and learn best practices for quality and production management by visiting 28 companies in ten countries, three international exhibitions, and five domestic companies. In 2017, these activities were conducted twice. In April, suppliers visited leading smart factories in Korea to enhance their awareness of manufacturing innovation and review the effectiveness of smart factories. In November, they traveled to Vietnam and the Philippines to study the Southeast Asian market environment and benchmark cases of Korean SMEs that have successfully entered this market. In particular, the November program reflected the needs of ACE Club members who consider global expansion an important avenue for overcoming difficulties in the domestic management environment. We will continue to support our suppliers through these activities that help them discover future industry trends and broaden their views on business management.



Benchmarking for innovation

ACE Club Innovation Exchanges | In 2017, innovation activities led by CEOs have been directed to programs focusing on working-level employees under the ACE Club Innovation Exchanges. These aim to spread best practices and conduct execution-oriented innovation activities that create synergies.

Annual targets were set by suppliers at the kick-off meeting in March, followed by quarterly exchange meetings featuring activities such as benchmarking best practices, establishing action plans, and holding discussions. In April, members paid a visit to the LSIS subsidiary in Wuxi, China and its Chinese suppliers. In July they took part in a Love Volunteering event as a social contribution program. The activities at the Innovation Exchanges have increased the satisfaction of working-level employees and CEOs as well. Going forward, more focus will be on activities led by working-level employees to help them produce more tangible results.

ACE Club Reflection | The ACE Club Reflection program was launched in 2017 to explore possible improvements to the ACE Club by conducting an annual review of its activities and draw lessons. The activities conducted include CEO seminars, benchmarking at home and abroad, Innovation Exchanges for capacity-building, CEO communication events, and partnership-building CSR activities. At the Reflection held in December, members were able to reflect on their activities over the year and discussed areas for improvement and ways to hone their competitiveness. LSIS will continue to work on measures to promote the ACE Club by motivating and supporting the members to enhance their competitiveness.

CSR activities with suppliers | LSIS has conducted Love Volunteering activities together with its suppliers since 2015 as a way to contribute to local communities and act upon its philosophy of sustainable management. In September 2017, 30 volunteers from LSIS and the ACE Club visited Yes-im House (a vocational facility for the disabled in Cheongju) for a sharing event. There, they played yut nori, a Korean traditional board game and had a tea time with physically challenged workers. Products made by the workers were

purchased and donated to the vulnerable in the surrounding area.

The scope of participants in the efforts was expanded in 2017 to include working-level employees from the ACE Club. These activities allow LSIS and the ACE Club to work together with local communities toward shared growth while implementing sustainability management.



CSR activities with suppliers

Increasing support to suppliers

Financial support and Shared-Growth Payment System

Financial support | LSIS raises funds through a number of avenues to help suppliers finance equipment investment, including expanding manufacturing facilities for enhanced productivity by providing them low interest rate loan support. In 2017, KRW 13.9 billion out of the total of 23.8 billion raised was used to support 68 primary and secondary suppliers, improving their cash flow and financial stability. Besides loan support for primary and secondary suppliers, efforts are being made to enhance the cash payment rate and the payment conditions for sub-contractors.

Suppliers with loan support and the amount (Unit : KRW billion)

| Category | 2015 | | 2016 | | 2017 | |
|----------|-----------|--------|-----------|--------|-----------|--------|
| | Suppliers | Amount | Suppliers | Amount | Suppliers | Amount |
| Direct | 2.2 | 2.7 | 2.5 | 3.0 | 2.6 | 2.8 |
| Combined | 2.1 | 5.1 | 2.5 | 7.2 | 2.6 | 8.1 |
| Special | 1.4 | 2.6 | 2.7 | 4.2 | 1.6 | 2.9 |
| Total | 5.7 | 10.4 | 7.7 | 14.4 | 6.8 | 13.9 |

Shared-Growth Payment System | LSIS became the industry's first company to introduce a Shared-Growth Payment System in August 2013 with the aim of improving payment conditions for its suppliers. The system allows primary, secondary, and tertiary suppliers to access account receivable collateral loans using the credit of LSIS. As of 2017, a total of 826 suppliers have joined the system and received payments worth KRW 718.2 billion. The number of primary suppliers accessing the system has increased twelve-fold since 2014, and the number of secondary and tertiary suppliers benefiting from it has risen ten-fold. As a result of our efforts with the system, LSIS supplier Hangil EST was selected as one of the model companies utilizing the system. We will continue to support the system to ensure that suppliers can steadily collect payments and relieve concerns over nonpayment of bills, thereby supporting a sound supply chain network.

Performance of the Share-Growth Payment System 2015-2017

(Unit : KRW billion)

| Category | 2015 | 2016 | 2017 |
|--|-------|-------|-------|
| Payment from LSIS to primary suppliers | 210.8 | 527.5 | 667.5 |
| Payment from primary to second/ tertiary suppliers | 32.8 | 38.9 | 50.6 |

(Unit : company)

| Category | 2015 | 2016 | 2017 |
|---|------|------|------|
| Primary suppliers utilizing the system | 173 | 527 | 669 |
| Secondary and tertiary suppliers benefiting from the system | 109 | 115 | 157 |



Selected as one of the best companies utilizing the system

Response to conflict minerals regulations | With the conflict mineral regulations that started in the US expanding to countries in Europe and beyond, LSIS developed a system in 2017 to respond to these regulations and prevent risks that could be faced by suppliers. The process of determining whether or not conflict minerals* are being used in parts and materials from suppliers is the key to managing this issue. In this regard, two presentation and training sessions were conducted to help suppliers understand the importance of data integrity regarding conflict minerals. We will work on advancing the system for compliance with regulations in cooperation with our suppliers to ultimately achieve the goals of sustainability management. * Tin, tungsten, tantalum, and gold

Support for suppliers' FTA origin management system |

FTAs are accelerating the pace of change in the export environment. LSIS has been supporting its suppliers since 2016 as they work to establish an origin management system and secure the integrity of origin certificates and minimize post-verification risk. In 2016, support activities were conducted with 36 suppliers for system establishment, management process consulting, training employees in charge of FTA issues, and information on origin management. In 2017, the number of supported suppliers increased by twelve. As a result, tariff benefits totaling KRW 4 billion (0.4 billion for exports and 3.6 billion for imports) have been achieved as of 2017. In addition, the system helps suppliers to effectively manage FTA origin issues and the system of connections between LSIS and its suppliers allows multi-directional communication.

Support for the production management system (NAMOS ERP) |

LSIS has provided suppliers with its free-of-charge NAMOS ERP production management system linked to its ordering information system. It was implemented by 34 suppliers from 2015 to 2016, and in 2017, support activities were conducted for stable system operation. Professional resources from LSIS were dispatched to suppliers to help them assess and diagnose their use of systems and address identified vulnerable areas, and also to provide training for efficient production management. The results include enhanced productivity, stabilized quality, reduced inventory costs, and higher on-time delivery rates.

Training support | LSIS has been operating training and educational programs for its suppliers since 2007 in an effort to enhance their competitiveness. Programs provided in association with the Korea Standards Association focus on job training. In particular, in 2017 LSIS employees with expertise in FTAs and NAMOS participated as lecturers. In 2017, a total of 196 employees from 172 suppliers attended programs on quality, production, costs, and business management (11 courses, 14 sessions). In addition, the satisfaction level of participants with the training has gradually increased from 4.4 out of 5.0 points in 2016 to 4.5 in 2017.

Technological support (technology development and protection) | **Technology development (New Product Development on the Condition of Purchase Project)** : LSIS has joined forces with suppliers in the government's New Product Development on the Condition of Purchase Project since 2012, contributing to enhancing technological capacity and increasing the sales of suppliers. LSIS has been working on a project with its subsidiary EKOS since 2017 with a plan to complete development by 2019. These activities will be promoted as our key R&D businesses for shared growth with the aim of motivating suppliers to focus on development, promote the localization of parts supply, and ultimately enhance national competitiveness.

Technology Protection : As damage due to the leakage of the trade secrets of SMEs is increasing, LSIS introduced the Certification of Original Documents on Trade Secrets in 2015 to safeguard suppliers' technologies and trade secrets. Certification by the Korea Institute of Patent Information serves as a means to confirm the ownership of proprietary technologies and business information by SMEs, helping them protect themselves against theft and leakage of technology and information. In 2017, we assisted five suppliers in certifying 11 technology and trade secret cases.

Purchasing (investment) support | When suppliers require facilities investment, LSIS can support them with its expertise in the purchasing process from the selection of vendors to price analysis so that they can make a purchase under competitive conditions.

Communicating with suppliers and promoting shared growth

Renewal of TOPS

With the aim of building a communications channel with suppliers and strengthening cooperation, the internet portal for shared growth named TOPS (<http://tops.lsis.com>) was renewed and reopened in January 2017. It provides information such as support programs for suppliers and monthly news and announcements on activities for shared growth, allowing suppliers to actively use it as a communication channel. In addition, LSIS's four action plans for shared growth are disclosed to suppliers via the site. Going forward, we plan to expand the scope of TOPS users to secondary and tertiary suppliers to promote communications throughout the supply chain.

New Year's Greeting Gathering and Performance Sharing Meeting

We host the New Year's Greeting Gathering at the beginning of the year and the Performance Sharing Meeting in the first half of the year. These serve as venues for communication to build a consensus on partnership by sharing LSIS's business direction, purchasing policy, and the achievements made with suppliers. In January, 2017, a total of 148 companies attended the gathering to exchange New Year's greetings and renew their commitment to innovation. At the July meeting featuring participation by 131 companies, there were discussions led by respective plant managers, the introduction of LSIS's support system for shared growth, and sharing of best practices on innovation.



Launch of the renewed TOPS



New Year's Greeting Gathering and Performance Sharing Meeting



Meals for Communication

Communication activities (Walking Together / Meals for Communication)

To discuss pending business issues and devise pathways for mutual cooperation through communication between LSIS and its suppliers, Walking Together, a program for CEOs organized by the head of the Strategic Purchasing Team, was operated three times. Participants actively engaged in a discussion on the challenges faced by suppliers. The program provides a communications channel confirming that cooperation is essential for the resolution of issues.

Due to the growing importance of promoting shared growth in the supply chain, communications activities with LSIS and primary and secondary suppliers have been conducted since 2013. Recently, a new approach called Meals for Communication has been applied to increase the flexibility of the activities. In 2017, employees from LSIS, four primary suppliers, and eight secondary suppliers shared a meal together to create a chance to discuss their difficulties with one another and deepen mutual understanding. LSIS will take diverse approaches in communicating with its suppliers and take the initiative in promoting shared growth.

NEWS

LSIS spearheading efforts for shared growth

At the SMART GRID EXPO held in September 2017, LSIS operated the LSpairtnership Zone where supplier outreach activities were presented to participants and purchasing consultations were provided to SMEs. This received a highly positive response. In addition, HYEIN Electric and Hangil EST, prominent members of the ACE Club, took part in introducing LSIS programs for shared growth, their benefits, and the club's activities. The participation of suppliers made the event even more meaningful. LSIS will expand the scope of these activities in the future to further promote a culture of shared growth.



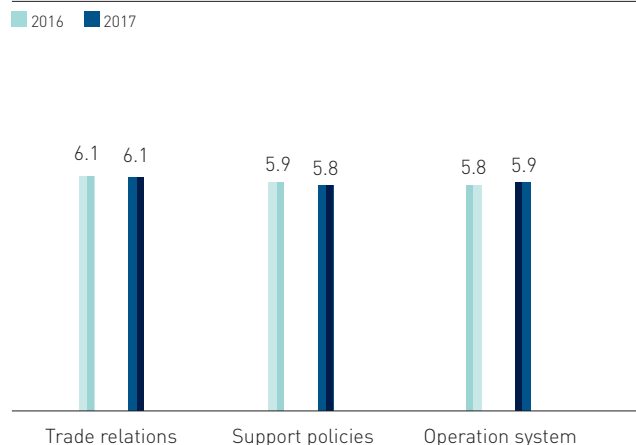
Shared-Growth Innovation Meeting

As an activity to support suppliers and ensure part quality, the Shared-Growth Innovation Meeting has been held every month since 2014. At this monthly meeting organized by the head of the Strategic Purchasing Group, suppliers reviewed quality status and shared issues and improvement cases regarding subcontracting. The topic of the meeting, which mainly focused on issues surrounding quality, was expanded in 2017 to include partnerships, such as enhanced trade relations, purchasing policies, and shared growth. The meeting will continue to serve as a venue where LSIS and its suppliers can freely exchange their views.

Survey results on shared growth activities

LSIS has been conducting a survey on the level of satisfaction of suppliers with shared growth activities since 2015 on the categories of trade relations, support policies, and the operation system. In the 2017 survey of 32 major suppliers, 6.1 out of 7 points were scored for trade relations, 5.8 for support policies, and 5.9 for the operation system. In detail, the satisfaction level was high in terms of fair trade, ethical management, training and financial support, and communications activities. On the other hand, payment adjustment for delivered goods and technical support were identified as areas for improvement. The survey results will be carefully considered and reflected when setting the direction for future shared growth activities.

Satisfaction level on shared growth activities (out of 7.0 points)



EMPLOYEES



Sang-tae Park / HR Team Leader, HR/
Management Support Division

COMMITMENT

Based on our policy that human resources provide the core competitiveness of the company, LSIS is striving to secure and nurture talent. To this end, a variety of programs such as educational support for graduate school and special training by job and position are provided to help employees further develop themselves and gain additional expertise. In addition, to create an environment in which employees can reach their full potential, considerable effort is made to strengthen communication between management and labor and promote employee welfare. We will continue to work resolutely on behalf of the wellbeing and growth of our employees.

Our human resources and sound corporate culture make up the foundation of our sustainable growth. LSIS is giving its all to ensure a positive working environment and nurture talent. In 2018, we plan to refine the systems and activities for promoting our employees' work-life balance and continue to develop a variety of capacity-building programs.

KPI in 2017

New employees in 2017
(permanent position)



41

Training expense per employee



KRW 1.65 million

Labor union membership rate



32.1%

Key performance and targets

Targets for 2017

- Strengthen global competitiveness of employees
- Create a good place to work
- Build a solid labor-management partnership

Performance in 2017

- Secured a pool of talent by focusing on global competitiveness of employees
- Reviewed system improvement according to changes in the work environment.

Targets for 2018

- Balance work and life
- Further promote communication with employees
- Improve the system for HR innovation

Work-life balance

Recently, work-life balance has emerged as one of key social issues in Korea. To help bolster their quality of life, LSIS provides its employees with Vacation Weeks, programs and events for employees' families, and daycare centers.

Vacation Weeks

Vacation Weeks is a system that allows employees to take a three- to five-day vacation in addition to a summer vacation within the limits of their paid leaves in accordance with related laws and collective bargaining agreements. Employees are currently taking advantage of it to refresh themselves after long-term projects or to enjoy personal events.

Family programs

Families are key to quality of life. Under the motto of 'happy families mean happy employees', LSIS is operating a variety of programs for employees and their families.

Family Happiness Camp | The Family Happiness Camp program is designed to encourage communication among family members by providing an opportunity for them to contemplate what makes a family happy. They learn how to communicate with each other, express themselves, and discuss what they can do for family happiness.

Dream Camp | Our Dream Camp aims to help children think about their ambitions and how to make them come true. This camp for children of LSIS employees features programs to help them reflect on their good and bad habits and explore ways to realize their dreams.

Go Camp | This annual camp held in July is for elementary/middle school children of employees. It aims to develop emotional stability and logical thinking. A variety of activities besides playing go are conducted to help them further develop strategic thinking and teamwork.

Family events

LSIS holds events for employees and their families to provide chances for open communication and to encourage employees to develop a sense of pride in the company.

Smart Working, Happy Life! | "Smart Working, Happy Life!" is an annual event for celebrating employees promoted to managerial positions. It includes the participation of family members and LSIS executives. The event started in 2011 and has become a venue where executives ask new managers to live up to their responsibilities, express their gratitude to family members for their support, and share the company vision.

Family Fun Event on Children's Day | This Children's Day celebration serves as an opportunity for the children of employees to better understand the importance of family and develop a sense of pride in their parents' company.



Family programs



Dream Camp



Go Camp



Family Fun Event on Children's Day

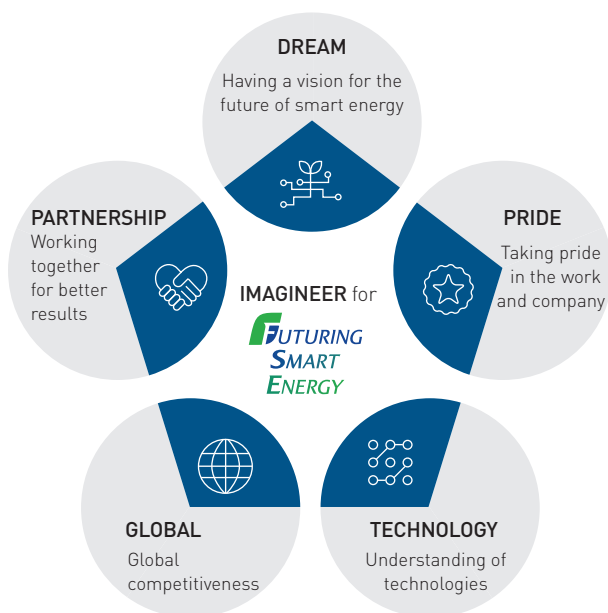
Daycare centers

LSIS operates daycare centers at worksites to promote employees' work-life balance. An LS daycare center was opened in Anyang in March 2015 for employees at LSIS headquarters and the Anyang R&D Campus. LSIS joined a consortium to construct a daycare center in the Cheongju industrial complex. It has been in operation since March 2014. Expert daycare institutions are commissioned to operate the centers to ensure that children of employees remain well taken care of in a secure environment.

Securing and nurturing talent

HR philosophy

To proactively respond to shifting business paradigms and achieve our G365 vision, LSIS proclaimed Imagineers for the Future of Smart Energy as an HR philosophy in 2016. Imagineer, a word coined by blending 'imagine' with 'engineer', describes people who take pride in their work and company (Pride), have a vision for the future of smart energy (Vision) based on advanced technology (Technology) and a global outlook (Global Outlook), and work together for better results (Partnership). LSIS employees are dedicating themselves as imagineers to achieve this corporate mission.

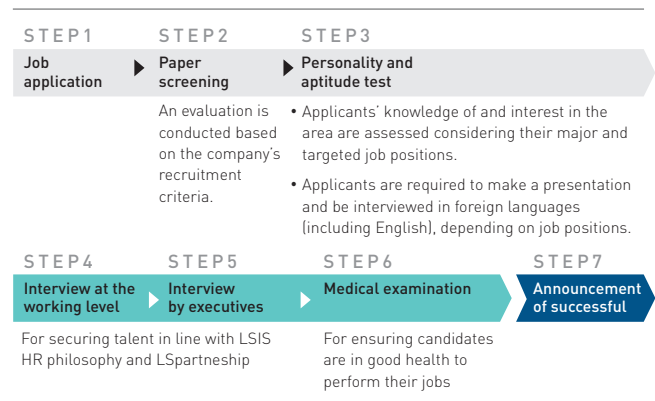


Recruitment channels and processes

LSIS strives to secure human resources through a variety of channels, including biannual open recruitment of career and non-career track employees and a global recruitment program that targets Korean college graduates in North America and China along with people from other countries with R&D expertise. Moreover, a year-round recruitment program is being operated to attract researchers in new business areas. Widespread efforts are made to discover needed resources through on-campus recruitment, employee recommendations, and professional search firms. In 2017, 41 non-career employees joined LSIS.

Applicants' basic skills, growth potential, and interest in and passion for work are the key elements LSIS examines in recruitment. In order to ensure the objectivity and consistency of evaluation criteria, the value assigned to job-competency and English-aptitude test results in the paper screening has been increased and the interview process has been standardized through related training provided to interviewers.

Recruitment process



Career development programs for prospective employees

| Program | Description |
|-------------------------------|---|
| Corporate funded scholarships | It provides support to excellent students throughout their master's or doctorate courses, allowing them build expertise before joining LSIS |
| Lab Tour | LSIS pays a visit to outstanding university labs in electronics to promote communication with schools. |
| Summer internship program | It allows future employees to experience LSIS and understand its vision by conducting tasks and working with its employees. |
| LS Job Fair | Job seekers are invited to LSIS to participate in the company overview presentation, mock interviews, and lunch with LSIS employees |

Programs to help new hires adjust to the company

A variety of programs are currently in place to help new hires adjust to the company. On the day of the announcement of successful applicants, they receive a congratulatory message and a flower basket from the CEO. They are also provided a chance to tour the Jeju HVDC Smart Center before starting work. Group-wide and company-wide introductory training programs are provided so they can learn the basics required of LSIS employees. Mentoring programs and on-the-job training also help them to strengthen their job competencies. In addition, the Future Camp program is offered after completing the

| Point of time | Program | Period |
|-----------------------|----------------------|--|
| Before job assignment | Before start working | Jeju HVDC Smart Center tour 3 days |
| | to Feb | • Group-wide introductory training • Company-wide introductory training 3 weeks 1 week |
| After job assignment | Jul. | • Mentoring • On boarding Package 4 months 1 week |
| | One year | Future Camp 3 days |

first year of work at LSIS. This allows them to reflect on the past year and think about their future with the company.

Development of human resources

LSIS has been providing superb facilities and well-organized training programs to enhance employees' competitiveness. In 2005 the LSIS Training Center won the President's Award as an exemplary vocational training institution. It obtained a grade of A in a governmental review program for four years in a row from 2012 to 2015. Based on the belief that continuous individual and organizational growth will set the course for the future of the company, training programs are operated in international skills, organizational development, and job training categories. In 2017, per-employee average spending reached KRW 1.652 million. In addition, as the global competitiveness of employees has become increasingly important, a Global Lounge where employees can learn foreign languages and about different cultures was launched at headquarters and at the Cheongju plant. Meanwhile, LSIS also provides programs ranging from product user training to in-depth training on power solutions and automation for customers and students.

Training system

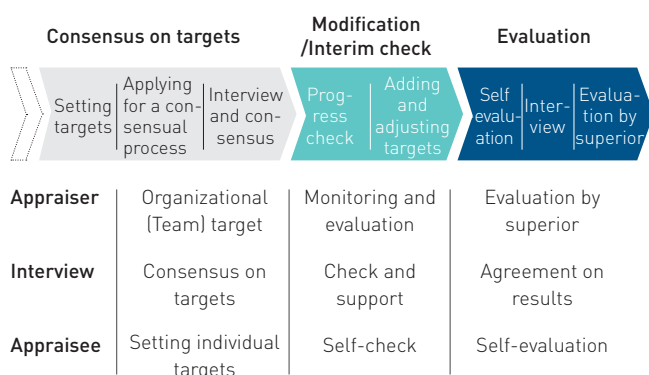
| | Global | Position level | Organizational development | Job | | |
|-------------------------------|--|--|---|--|--|---|
| Executive | Foreign languages Global Lounge Program | New executives Executive seminars | | Purchasing | | |
| General manager | Global Lounge Program - GBT - On the Job English - 1:1 English Coaching - In Company English - Daily News Briefing - Intensive (English/Chinese) Global communication Second foreign language speaking (US/China/Middle East/Vietnam) Understanding different cultures Overseas dispatch UT-Austin China Biz Academy/On-boarding for employees returning from overseas subsidiaries External language support based targets set through a consensual process | Team leader capacity-building New team leaders New team leader WR | Intervention - Assimilation W/S, PI, Organizational diagnosis Strengthening team's capability to act | R&D SW (17 programs) HW (5 programs) Design (13 programs) Common | | |
| Senior manager | | Solution Leader Program - Promoted to general managers - New senior managers - Promoted to senior managers - New managers - Promoted to managers - New assistant managers - Promoted to assistant managers | | Introductory program for career employees (LSIS/Group) / Plant on-boarding [Leadership Challenge Prtg.] LCP LS MBA, LS T-MBA Coaching Strengthening innovation capability for office workers Mentoring | Production | |
| Manager | | LS Future Camp | | | Quality Reliability (7 programs) SPC (3 programs) QMS (6 programs) FMEA (2 programs) | |
| Assistant manager | | Introductory program for non-career employees (LSIS) Introductory program for non-career employees (LS Group) | | | | Support (8 programs) Sales (5 programs) |
| Rank-and-file employee | | Production supervisor capacity-building Production worker capacity-building | | | | Strengthening innovation capability for factory workers |

* LSIS also provides 32 training programs for customers and suppliers.

Evaluation and compensation

LSIS believes that fair evaluation and compensation are the foundation of sustainable development. In our performance evaluation system, targets are set at the group, division, team, and employee level in order to achieve the company's management goals. At the beginning of the year, targets are established through a consensual process. Progress is monitored via daily/interim checks, and preventive measures are taken to guarantee that targets are met. The causes of any failure are identified for future improvement. In each evaluation process, appraisers interview the appraisees. The evaluation results are explained to appraisees in order to ensure transparency and they are reflected in setting future targets and in plans for employee capacity-building. Teams' ratings based on the evaluation results are linked to individual ratings, and the results are used for determining bonuses, salaries, promotions, and career development.

Operational process



Respecting human rights and guaranteeing basic labor rights

LSIS maintains a system to prevent any and all discrimination with regard to gender, race, religion, or place of origin. To this end, policies to promote diversity are being implemented to foster an environment in which employees are given equal opportunities to reach their full potentials. We have completely forbidden any form of child or coerced labor, and we strictly abide by any related domestic and international laws. There has never been a case of violations related to these issues. We will remain committed to improving this system for respecting

human rights.

In addition, annual negotiations over wage and collective agreements are conducted between the management and labor representatives in order to improve working conditions. Freedom of association is guaranteed in order to ensure that employees are never disadvantaged due to labor union activities.

Labor-management partnership for shared growth

Since the labor union for LSIS was established as the Goldstar Industrial System on July 27, 1987, labor-management relations have been based on partnership for shared growth. In order to bridge any gaps through mutual trust, a working-level taskforce team addresses pending issues. In addition, to create an environment beneficial to shared growth, quarterly labor-management meetings are held at the company level and at plants to discuss working conditions and welfare benefits as well as HR matters and corporate development strategies. Notably, management regularly holds an information session for executive officers with the labor union regarding management performance at plants in order to promote management transparency. Meanwhile, representatives from management and labor visit overseas subsidiaries together to observe the global management environment and share a sense of urgency. Besides the labor union, diverse channels such as LinkerS, Smart Board, and Ace Board are operated to promote communication within the plant and position levels. Through these means, we can continue to improve the working environment for employees.

Labor union membership (as of the end of 2017)

According to the collective agreements and labor rules, 100% of production workers have joined the labor union, and 1,021 or 32.1% of LSIS employees are union members.

| Category | Job group | 2015 | 2016 | 2017 |
|---------------------------|----------------------------|-------|-------|-------|
| Non-union member (person) | Office worker | 2,258 | 2,233 | 2,081 |
| | Production advisor/ Others | 83 | 79 | 78 |
| Union member (person) | Production worker Male | 867 | 849 | 854 |
| | Female | 168 | 167 | 167 |
| Union membership rate (%) | | 30.6 | 30.5 | 32.1 |

* The union participation rate is the ratio of unionized workers to total employees.

LOCAL COMMUNITY CONTRIBUTION



Jee-hee Byeon /
Anyang Senior Welfare Service Center

COMMITMENT

Korean society is rapidly aging, and issues such as poverty among the elderly living alone are real concerns. LSIS's efforts and contributions for supporting senior citizens in need have become a model for others. We will continue to cooperate with LSIS in its social contribution activities by communicating with social welfare centers that benefit the vulnerable and underprivileged.



Min-woo Lee /
Anyang Suri Welfare Center for the Disabled

Many disabled people living at home suffer from both physical and financial struggles, and their opportunities to enjoy culture and the arts are limited. In this regard, LSIS's programs for 2017 provide a chance for them to actively participate in society and recharge their rehabilitation. I hope LSIS will continue to devise and implement a variety of activities to support people with disabilities.

LSIS has been faithfully conducting activities that help us contribute to forging a better society. Based on the three principles of Partnership, Initiative and Continuity, community-based and seasonal support programs including donations to low-income households are in place. In 2018, we will create diverse programs to help employees more easily participate in practicing the philosophy of sharing in their daily lives as we fulfill our corporate social responsibility.

KPI in 2017

Employees participating in volunteer activities



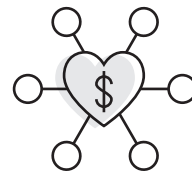
1,590

Total amount of annual donation



KRW 493.8 million

Social contribution activity cost



KRW 50.1 million

Key performance and targets

Targets for 2017

- Establish a communication channel to listen to stakeholders, including social welfare workers, experts, citizens and the government
- Strengthen cooperation between LSIS plants and local organizations
- Continue to implement seasonal support programs for the vulnerable
- Promote a culture of sharing to employees

Performance in 2017

- Strengthened cooperation with local welfare centers for the elderly and disabled
- Launched new programs, including 'Let's Make It Green with LSIS'
- Increased seasonal support for the underprivileged

Targets for 2018

- Expand the scope of contribution activities
- Devise activities that meet the needs of local communities
- Encourage employees to practice the philosophy of sharing in their daily lives

Social contribution activities

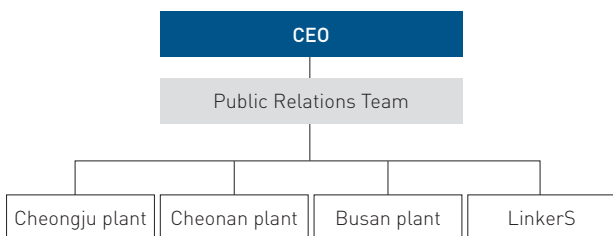
Philosophy

LSIS's social contribution activities are conducted at the LS Group level based on its management philosophy of LSpartnership. This effort aimed at creating greater value together as trustworthy partners reflects the LS Group's philosophy of providing a reliable partner to support the underprivileged and future generations. In accordance with this philosophy, its subsidiaries are conducting social contribution activities at home and abroad focusing on creating greater value through cooperation and sharing.

| | |
|--|--|
| LS Group's philosophy of social contribution | <p>A reliable partner to support the underprivileged and future generation</p> <ul style="list-style-type: none"> • Create greater value through sharing and cooperating based on the philosophy of LSpartnership • Devise and run programs in line with the LS Group's philosophy to create synergies |
| LSIS's philosophy of social contribution | <p>Providing support to ease social conflicts and help the vulnerable</p> <ul style="list-style-type: none"> • Partnership: Participation to ease social conflicts and help the vulnerable • Initiative: Sincere and voluntary activities • Continuity: Continuous social contribution activities |

Implementation structure

LSIS has been developing and operating its own programs rather than simply following those being pursued at the Group level. Our Public Relations Team leads these company-wide activities. At the plant level, the HR Support (Support Innovation) Team and LinkerS (a representative body for office workers) are conducting activities tailored to specific regional needs.



* LinkerS: It is a representative body for office workers at LSIS to lead the efforts for open culture and social contribution. It is comprised of 17 employees.

Activities at the LS Group level

LS Dream Science Class

The LS Dream Science Class is an LS Group program that was initiated in 2013 to support elementary school students in cooperation with the Child Fund and the National Academy of Engineering of Korea. Science classes are provided to around 400 fifth and sixth graders from elementary schools in nine regions where plants of LS Group subsidiaries are located. The program provides them with opportunities to learn scientific principles in an easy and fun way, fueling their interest in science and in school in general. Volunteer LSIS employees and college students majoring in science and engineering provide science lessons as teachers and mentors after undergoing related training. LSIS employees at the Cheongju, Anyang, and Busan plants also participate in the program as one-day lecturers or as guides for plant tours.

LS Dream Village:

Overseas volunteer group / LS Dream School

The LS overseas volunteer group is composed of 20 college students selected through an open application process, employees of LS Group subsidiaries, and experts from the NGOs cohosting the program. Participants undergo training and prepare for their volunteer activities for two months before departure.

LS Group has been operating this program biannually since 2007 with the aim of providing support for children in developing countries and improving their educational environment. From 2013, the LS Dream School project has been implemented in association with overseas volunteer activities. Under this project, the construction of two schools was completed in 2013. By 2018, a total of ten schools will be built.



LS Dream Science Class



LS overseas volunteer group

LS Dream Orchestra

LS Dream Orchestra was launched in June 2012 for children and young people from underprivileged families. It is modeled after El Sistema, a Venezuelan program for social uplift through classical music. Along with offering them hope and dreams for the future, the program aims to change society through music by providing free education on classical music. To this end, it provides opportunities such as lessons on musical instruments, music camps, attending concerts, and hosting concerts and recitals. It is being operated in Daejeon, Cheonan, Ulsan, and Pohang. In May 2017, a concert was held on the island of Dokdo, and a children's traditional Korean music orchestra was formed in Wanju-gu, Jeollabuk-do Province. In October, the fifth regular LS Dream Orchestra concert was held. LSIS will continue to support the orchestra and help its members reach their full potentials, develop their passion for music, and build their spirit of teamwork.

Community-based social contribution activities

LSIS has been faithfully conducting activities that help us contribute to forging a better society. Based on the three principles of Partnership, Initiative and Continuity, community-based and seasonal support programs including donations to low-income households are in place in Anyang, Cheongju, Cheonan, Busan where LSIS plants are located.

Seasonal support

From 2014, we have donated winter clothes to low-income households in winter, lunchboxes during the Chuseok holi-

days, and cooling equipment in summer. For the Lunar New Year, a *ddeokkuk* (a traditional holiday dish) sharing event is held for the elderly living alone in cooperation with local senior welfare service centers. In 2017, the program of outings and cultural events for the disabled living at home that began in Anyang will be expanded to other worksites.

Environmental cleanup programs

'Let's Make It Green with LSIS' is a campaign to preserve ecosystems in cities and protect the environment in cooperation with local communities and civic groups. As part of these efforts, a volunteer group of 30 LSIS employees, International Environmental Action Association members, and local residents held a Making a Clean Anyang Stream event in June 2017. They infused EM (effective microorganisms) soil balls into the stream, cleaned away garbage, and removed invasive plants disturbing the ecosystem. Similar environment cleanup activities are being conducted regularly at other worksites as well.

Programs open to suggestions

LSIS performs an annual satisfaction survey for our social contribution activities. We target local government officials, employees at welfare service centers, volunteers, and experts. The results are reflected in the next year's activities. The satisfaction level has been high overall (over 90 points out of 100). We will continue to improve programs and develop new ones based on the survey results.



LS Dream Orchestra



Seasonal support program



Environmental cleanup program

REGIONAL CONTRIBUTION ACTIVITIES



← Anyang

In Anyang, where the LSIS headquarters and R&D Campus are located, a variety of activities are performed in cooperation with the Anyang Senior Welfare Service Center and Suri Welfare Center for the Disabled. Since 2014, winter clothes have been donated to low-income senior citizens in winter, and a watermelon-sharing event is held in summer for the elderly living alone. In addition, activities such as a lunchbox gift for the Chuseok holidays and sponsorship of sports events are conducted in cooperation with the Anyang Senior Welfare Service Center.

Major activities: a ddeokkuk (holiday dish) sharing event for the Lunar New Year; donation of winter clothes for the elderly living alone; a watermelon-sharing event in summer; support of disabled people living at home in their outings; and cleanup of an Anyang stream

Cheongju →

Employees at the Cheongju plant take part in efforts to communicate with local communities for sharing. Activities include the Green & Clean Day, protection of local cultural assets such as Sangdang Fortress, and a cleanup on Bumo Mountain. Jandihoe, an employee volunteer group formed at the plant in 1998, has conducted a variety of activities including a kimchi-sharing event, and employees regularly visit Yesim House and Cheongju Senior Care Center for volunteering.



In order to strengthen communication with the local community, the Cheongju plant focuses not only on volunteer activities together with local social welfare centers, but also on programs for protecting cultural properties and the environment.

Major activities: The LS Dream Science; volunteer activities at Gomduri Gymnasium and Yesim House; support for selling agricultural products under One Company One Village sisterhood; fortress keepers: Green & Clean Day; removing invasive plants disturbing the ecosystem in a Miho stream; and activities by Jandihoe



← Cheonan

The Cheonan plant conducts diverse sharing activities in an effort to promote interaction with the local community. In coordination with the Cheonan Hope Sharing Volunteer Center, LSIS distributes free meals monthly to the homeless and others in need. This volunteer project focuses on solving pressing problems, but it also provides ongoing support to vulnerable and low-income households. Apart from these regular activities, various sharing events are being planned to improve the livelihoods of the underprivileged. In addition, the Green & Clean Day for environmental cleanup and blood donation events are organized on a regular basis.

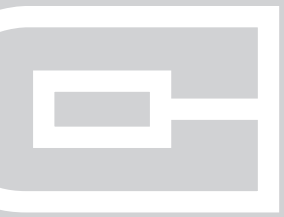
Major activities: Free meal events at the Cheonan Hope Sharing Volunteer Center; rice purchase from a local village under a 1 Company 1 Village program; blood donation events; and coin collection campaigns

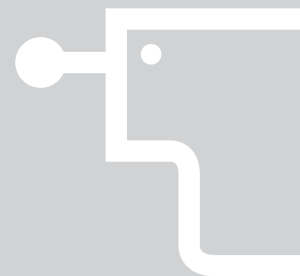
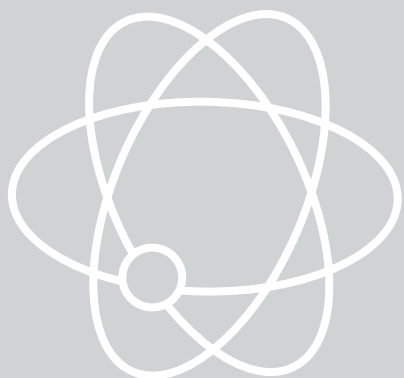


Busan

The Busan plant has been conducting various activities by identifying tasks for implementation based on LSIS's CSR model, including volunteer work, social contributions, and donations. Group volunteer work at senior centers and welfare facilities and meal giveaways are provided as part of the efforts to contribute to local communities. The plant is also managing environmental cleanup programs such as a Green & Clean Day and its One Company One Stream campaign, along with free plant tours for students and local residents.

Major activities: Meal giveaways; group volunteer work at senior centers and welfare facilities; and the One Company One Stream campaign





Appendix

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| Third-party's Assurance Statement | 84 |

Economy

Consolidated

Summarized statement of financial position (unit: KRW million)

| Item | 2015 | 2016 | 2017 |
|--|-----------|-----------|-----------|
| Assets | 2,251,674 | 2,261,806 | 2,255,821 |
| Current assets | 1,394,335 | 1,417,503 | 1,416,121 |
| Non-current asset | 857,339 | 844,302 | 839,700 |
| Liabilities | 1,236,975 | 1,195,739 | 1,107,681 |
| Current liabilities | 618,075 | 680,590 | 649,818 |
| Non-current liabilities | 618,900 | 515,150 | 457,864 |
| Equity | 1,014,699 | 1,066,066 | 1,148,140 |
| Total equity attributable to stockholders of the company | 1,013,260 | 1,064,582 | 1,145,723 |
| Non-controlling interest | 1,439 | 1,485 | 2,417 |
| Total liabilities and equity | 2,251,674 | 2,261,806 | 2,255,821 |

Summarized statement of comprehensive income (unit: KRW million)

| Item | 2015 | 2016 | 2017 |
|--|-----------|-----------|-----------|
| Sales | 2,201,676 | 2,213,616 | 2,343,745 |
| Operating income | 154,402 | 124,424 | 158,442 |
| Income from continuing operations before tax | 113,642 | 101,984 | 138,489 |
| Net income | 70,554 | 80,748 | 106,005 |

Summarized statement of cash flows (unit: KRW million)

| Item | 2015 | 2016 | 2017 |
|--|----------|-----------|-----------|
| Cash flows from operating activities | 100,301 | 242,227 | 144,598 |
| Cash flows from investing activities | (95,890) | (101,968) | (163,772) |
| Cash flows from financing activities | (50,599) | (87,330) | (54,074) |
| Net increase/decrease in cash and cash equivalents | (46,188) | 52,930 | (73,247) |
| Cash and cash equivalents at the beginning of the year | 332,334 | 286,081 | 340,137 |
| Effect of exchange rate changes on cash and cash equivalents | (65) | 1,125 | (5,383) |
| Cash and cash equivalents at the end of the year | 286,081 | 340,137 | 261,507 |

Government subsidies (unit: KRW million)

| Item | 2015 | 2016 | 2017 |
|------------------|-------|-------|-------|
| Machinery | 112 | 11 | 7 |
| Office equipment | 6 | 4 | 41 |
| Building | 267 | 246 | 225 |
| Development cost | 2,120 | 1,873 | 1,678 |

Safety and Environment

Safety and environment index

| Sector | Item | Unit | 2015 | 2016 | 2017 | |
|--------------------------------------|--|----------------------------------|---------------------|-------------|---------------|----------------|
| Investment in safety and environment | Green product development | KRW million | 5,342 | 3,118 | 9,052 | |
| | Investment in environmental and safety facilities | KRW million | 616 | 566 | 822 | |
| | Maintenance of environmental and safety facilities | KRW million | 319 | 219 | 488 | |
| Green purchasing | Purchasing of green products | KRW million | 180 | 381 | 399 | |
| Environment | Dust emissions | kg | 1,015 | 1,076 | 824 | |
| | Water consumption | km ³ | 243 | 233 | 212 | |
| | Wastewater discharge | m ³ | 214 | 172 | 45 | |
| | Waste discharge | General | ton | 3,730 | 3,671 | 4,251 |
| | | Designated | ton | 70 | 92 | 99 |
| | Waste recycling rate | ton | 247 | 259 | 278 | |
| | GHG emissions ¹⁾ (by source) | Scope 1 | tCO ₂ eq | 226,975 | 186,792 | 250,704 |
| | | Scope 2 | tCO ₂ eq | 25,706 | 26,646 | 25,553 |
| | | subtotal | tCO ₂ eq | 252,681 | 213,438 | 276,257 |
| GHG intensity | tCO ₂ eq/KRW million | 0.14 | 0.12 | 0.15 | | |
| Energy | Electricity consumption | MWh | 55,252 | 57,150 | 57,153 | |
| | | toe | 12,708 | 13,145 | 13,135 | |
| | Electricity intensity | MWh/KRW 100 million | 3.09 | 3.30 | 3.12 | |
| | LNG consumption | km ³ | 2,189 | 2,136 | 2,337 | |
| | | toe | 2,283 | 2,227 | 2,432 | |
| | LNG intensity | km ³ /KRW 100 million | 0.12 | 0.12 | 0.10 | |
| Safety | Industrial accident rate ²⁾ | % | 0.02 | 0 | 0.04 | |
| | Training hours (cumulative) | hour | 78,034 | 92,468 | 90,446 | |
| | Trainees (cumulative) | person | 33,899 | 37,439 | 19,027 | |
| Raw materials | Steel | ton | 18,155 | 11,277 | 12,181 | |
| | Nonferrous metal | ton | 4,530 | 3,566 | 3,884 | |
| | Resin | ton | 4,812 | 587 | 700 | |
| Production cost | | KRW 100 million | 17,906 | 17,325 | 18,320 | |

* LSIS is operating the Occupational Safety and Health Committee where the labor and management discuss or deliberate on safety and health issues of employees working at the plants to build a safe and pleasant working environment.

1) GHG emission data may differ from the national statistics due to differences in aggregate range.

2) The 2017 average accident rate is based on LSIS calculation criteria. The government agency in charge is currently working on the average.

Employees

HR index (as of the end of 2017)

| Index | Category | Unit | 2015 | 2016 | 2017 | Note |
|--|-----------------------|--------|-------|-------|---|------------------------------|
| Total employees | Executive | Person | 22 | 20 | 20 | |
| | Permanent employee | Person | 3,351 | 3,292 | 3,168 | |
| | Temporary employee | Person | 243 | 243 | 214 | Temporary employees included |
| | Total | Person | 3,616 | 3,555 | 3,402 | |
| Employees by region | Anyang | Person | 1,176 | 1,135 | 1,030 | |
| | Cheongju | Person | 1,581 | 1,537 | 1,525 | |
| | Cheonan | Person | 557 | 550 | 509 | |
| | Busan | Person | 193 | 187 | 182 | |
| | Others | Person | 109 | 146 | 156 | |
| | Total | Person | 3,616 | 3,555 | 3,402 | |
| Employees by age (permanent employees) | 20s | Person | 421 | 357 | 272 | |
| | 30s | Person | 1,165 | 1,112 | 1,027 | |
| | 40s | Person | 1,166 | 1,216 | 1,179 | |
| | 50s and older | Person | 599 | 607 | 690 | |
| | Total | Person | 3,351 | 3,292 | 3,168 | |
| Newly hired (permanent) | Person | 105 | 101 | 41 | | |
| Retirement rate (permanent) | % | 2.97 | 2.69 | 3.25 | | |
| Female employees (permanent) | Person | 419 | 454 | 418 | | |
| Percentage of female employees (permanent and temporary) | % | 11.6 | 12.8 | 10.4 | | |
| Female managers | Person | 33 | 33 | 36 | Manager level and higher | |
| Percentage of female managers | % | 1.0 | 1.0 | 1.1 | | |
| Employees with disabilities | Person | 45 | 45 | 50 | Permanent employee | |
| Percentage of employees with disabilities | % | 1.3 | 1.4 | 1.6 | | |
| Foreign employees (permanent and temporary) | Person | 18 | 15 | 12 | Foreign employees working at domestic sites | |
| Training expenses | KRW 1,000/ person | 2,106 | 2,109 | 1,652 | | |
| Training hours | PD/person | 10 | 10 | 7 | 1PD: eight hours of offline group training; and one month for online training | |
| Welfare benefit expenses | KRW million/person | 13.7 | 14.1 | 16.5 | | |
| Employees who used childbirth leave | Person | 17 | 19 | 13 | | |
| Employees who used parental leave | Person | 17 | 19 | 14 | Employees returned from parental leave | |
| Rate of return to work after parental leave | % | 100 | 100 | 100 | | |

Retirement pension program

| Index | Category | Unit | 2015 | 2016 | 2017 | Note |
|---------------------------|-------------|-------------|---------|---------|---------|------|
| Defined benefit (DB) | Amount* | KRW million | 152,441 | 182,152 | 183,184 | |
| | Subscribers | Person | 3,317 | 3,293 | 3,252 | |
| Defined contribution (DC) | Amount | KRW million | - | - | - | |
| | Subscribers | Person | 1 | 6 | 92 | |

* The amount is based on the balance of the retirement pension fund management company at the end of 2017.

Shared Growth and Social Contribution

Shared growth

| Index | Category | Unit | 2015 | 2016 | 2017 | Note |
|--|----------------------------------|-----------------|-------|-------|-------|---|
| Ethics index of suppliers | | Point | 4.24 | 4.19 | 4.23 | |
| Ethics index of distributors | | Point | 3.98 | 4.01 | 4.08 | |
| Supplier training on the subcontracting laws | Sessions | Session | 3 | 1 | - | |
| Signing of the Shared Growth Agreement | Agreements | Case | 388 | 350 | 337 | |
| Financial support to suppliers | Fund raised | KRW 100 million | 218 | 238 | 238 | |
| | Fund provided | KRW 100 million | 104 | 144 | 139 | |
| | Suppliers supported | Company | 57 | 77 | 68 | |
| Shared-Growth Payment System | Total amount of credit issued | KRW 100 million | 2,436 | 5,644 | 7,182 | |
| Supplier training support | Participants | Person | 612 | 424 | 196 | |
| Technology sharing for suppliers | Suppliers benefitted | Company | - | 15 | - | Offering patent rights for free |
| Technology protection for suppliers | Support cases | Case | 39 | 44 | 11 | Certification of Original Document of Trade Secrets |
| Technology development support for suppliers | New product development projects | Case | 2 | 1 | 1 | |
| | Technological cooperation tasks | Case | 74 | 66 | - | |
| | | KRW 100 million | 33 | 44 | - | |
| ACE CLUB (Supplier Association) | Membership | Company | 19 | 20 | 19 | |
| ACE CLUB innovation capacity support | Suppliers supported | Company | 19 | 20 | 19 | 2015: Leadership Innovation Program for CEOs |
| | Employees supported | Person | 19 | 20 | 19 | 2016: Innovation Competition 2017: Innovation Exchanges |
| Performance sharing meetings with suppliers | Participating suppliers | Company | 600 | 470 | 279 | |
| Communication activities for suppliers | | Session | 2 | 3 | 3 | 2015: CPO Talk Concert 2016: CLO Talk Concert 2017: Programs for CEOs |

Purchase by region (unit: %)

| Index | 2015 | 2016 | 2017 | Note |
|----------------------------------|------|------|------|---|
| Asia (excluding the Middle East) | 95 | 94 | 70 | |
| Europe | 4 | 5 | 23 | |
| Americas | 1 | 1 | 5 | |
| Middle East | 0 | 1 | 1 | |
| Total | - | - | 0.02 | |
| Total | 100 | 100 | 100 | Materials supplied from 31 countries (2017) |

Social contribution activities

| Index | Unit | 2015 | 2016 | 2017 | Note |
|---------------|-------------|------|-------|-------|-------------------|
| Donation | KRW million | 672 | 958 | 494 | Accounting amount |
| Cost | KRW million | 51 | 43 | 50 | |
| Activities | Case | 161 | 156 | 119 | |
| Participants* | Person | 955 | 1,385 | 1,590 | |

* The number of people involved in social contribution activities is counted as the number of volunteers, which is different from the data of existing reports.

Membership and Awards

Membership

| Domestic | Overseas |
|--|---|
| Korea Chamber of Commerce, Korea International Trade Association, Federation of Korean Industries, Korea Electrical Manufacturers Association, Korea Smart Grid Association, Korea Standards Association, Korea Electric Association, Korean Institute of Electrical Engineers, Korea Electrical Contractors Association, International Contractors Association of Korea, Korea Engineering & Consulting Association, Korea New&Renewable Energy Association, Korea Fire Safety Association, Korea Customs Association, Korea Invention Promotion Association, Korea Atomic Industrial Forum, Korea Device Net Association, Korea Industrial Technology Association, Korea Association of ESCO, Korea Information and Communication Contractors Association, Korea Railway Association, Korea Railway Signal Engineering Association | UN Global Compact, Mechatro Link, Ether CAT Tenchnology Group, CIREC, CAN in Automation |

Awards

| Category | Date | Title | Organized/Hosted by | Award |
|------------|----------|--|--|---------------------------|
| Company | 2017.01. | Top 100 Global Innovators | Clarivate Analytics | Top 100 Global Innovators |
| Company | 2017.06. | Korea's Best Enterprise (power and cable sector) | Korea CEO Association | Grand prize |
| Company | 2017.09. | Citation in Strategic Trade CP | Ministry of Industry, Trade, and Energy | Minister's Citation |
| Individual | 2017.09. | Award of Merit at the World Environment Day (Ryu Gi-Hyeon, Manager) | Ministry of Environment | Minister's Citation |
| Individual | 2017.09. | Award of Merit for the Smart Grid Industry (Son Chang-Hee, General manager) | Ministry of Industry, Trade, and Energy | Minister's Citation |
| Individual | 2017.11. | Award of Merit for Parts and Material Technology Development (Cho Wook-Dong, Head of the Center) | Ministry of Industry, Trade, and Energy | Minister's Citation |
| Company | 2017.11. | Citation in the supplier association category | Ministry of SMEs and Startups (Korea Commission for Corporate Partnership) | Minister's Citation |
| Individual | 2017.11. | Korea Energy Efficiency Award (Ahn Sang-Ho, General manger) | Ministry of Industry, Trade, and Energy (Korea Energy Agency) | Prime Minister's Citation |
| Individual | 2017.12. | Contribution to improving technology regulation issues (Park Woo-Hyun, Manager) | Ministry of Industry, Trade, and Energy (Korean Standards Association) | Minister's Citation |
| Individual | 2017.12. | Contribution to land and transport affairs (Kim Mi-Kyung, Manager) | Ministry of Land, Infrastructure and Transport (Korea Railway Association) | Minister's Citation |

UN Global Compact COP

| The Ten Principles of the UN Global Compact | | Page | LSIS policies |
|---|---|---|---|
| Human rights | 1. Businesses should support and respect the protection of internationally proclaimed human rights. | Ethical management p.28-31 Employee p.67 | LSIS Code of Ethics and Conduct for Employees |
| | 2. Businesses should ensure they are not complicit in human rights abuses. | | |
| Labor | 3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining. | | |
| | 4. Businesses should uphold the elimination of all forms of forced and compulsory labor. | | |
| | 5. Businesses should uphold the effective abolition of child labor. | | |
| | 6. Businesses should uphold the elimination of discrimination in respect of employment and occupation. | | |
| Environment | 7. Businesses should support a precautionary approach to environmental challenges. | Environment p.46-53 | LSIS Environmental policies |
| | 8. Businesses should undertake initiatives to promote greater environmental responsibility. | | |
| | 9. Businesses should encourage the development and diffusion of environmentally friendly technologies. | | |
| Anti-corruption | 10. Businesses should work against corruption in all its forms, including extortion and bribery. | Ethical management p.28-31 | LSIS Code of Ethics and Conduct for Employees |

GRI Standard (Core) Index

| Topic | Disclosure | Page | Omission/Comments | |
|------------------------|------------|--|-------------------|---|
| Organizational profile | 102-1 | Name of the organization | 10 | |
| | 102-2 | Primary brands, products, and services | 18-21 | |
| | 102-3 | Location of the organization's headquarters | 10, 16 | |
| | 102-4 | Location of worksites | 16-17 | |
| | 102-5 | Nature of ownership and legal form | 12-13 | |
| | 102-6 | Markets served | 16-17 | |
| | 102-7 | Scale of the organization | 12-13 | |
| | 102-8 | Employee Information | 78 | |
| | 102-9 | Supply chain | 14-17 | |
| | 102-10 | Significant changes in the organization and supply chain | 10, 14-17 | Establishment of an overseas branch in Thailand (18.03) |
| | 102-11 | Principles and approaches in preventive measures | 32-33 | |
| | 102-12 | External initiatives | 25, 80 | |
| | 102-13 | Membership | 80 | |
| Strategy | 102-14 | Statement by the top decision-maker | 7 | |
| Ethics and integrity | 102-16 | Value, principles, standards, and code | 28-31 | |
| Governance | 102-18 | Governance | 12-13 | |
| Stakeholder engagement | 102-40 | A list of stakeholder groups | 14-15 | |
| | 102-41 | Collective bargaining agreement | 67 | |
| | 102-42 | Basis for identification and selection of stakeholders | 14-15 | |
| | 102-43 | The organization's approach to stakeholder engagement | 14-15 | |
| | 102-44 | Key topics and concerns that have been raised through stakeholder engagement | 26-27 | |
| Report profile | 102-45 | Companies included in the organization's consolidated financial statement | 16-17 | |
| | 102-46 | Report details and the scope of topics | 26-27 | |
| | 102-47 | A list of key topics | 26-27 | |
| | 102-48 | Restatement of information | - | No modification |
| | 102-49 | Changes in the report | - | No modification |
| | 102-50 | Reporting period | 2 | |
| | 102-51 | Date of the latest report | 2 | |
| | 102-52 | Reporting period | 2 | |
| | 102-53 | Contact information | 2 | |
| | 102-54 | Reporting in line with GRI Standards GRI Index | 2 | |
| | 102-55 | GRI Index | 81-83 | |
| | 102-56 | Third-party assurance | 84-85 | |

| Topic | Disclosure | | Page | Omission/Comments |
|-----------------------|------------|---|--------------------|--|
| Management approach | 103 | Management approach | 35, 47, 55, 63, 69 | |
| Economy | | | | |
| Economic performance | 201-1 | Direct economic value generated and distributed | 14-15 | |
| | 201-3 | Coverage of the organization's defined benefit plan obligations | 78 | |
| | 201-4 | Financial assistance received from government | 76 | |
| Purchasing procedures | 204-1 | Proportion of spending on local suppliers at significant locations of operation | 14-15, 79 | |
| Anti-corruption | 205-1 | Total number and percentage of operations assessed for risks related to corruption and the significant risks identified | 28-31 | |
| | 205-2 | Communication and training on anti-corruption policies and procedures | 28-31 | |
| | 205-3 | Confirmed incidents of corruption and actions taken | - | No anti-corruption cases substances during the reporting period |
| Environment | | | | |
| Raw material | 301-1 | Materials used by weight or volume | 77 | |
| | 301-2 | Percentage of materials used that are recycled input materials | - | No use of recycled raw materials |
| Energy | 302-3 | Energy intensity | 77 | |
| | 302-4 | Reduction of energy consumption | 50 | |
| | 302-5 | Reductions in energy requirements of products and services | 50 | |
| Water | 303-1 | Total water withdrawal by source | 77 | Water supply |
| | 303-2 | Water resources significantly affected by withdrawal of water | 50 | Water supplied from the local governments |
| Emission | 305-1 | Direct GHG emissions (Scope 1) | 49, 77 | |
| | 305-2 | Indirect GHG emissions (Scope 2) | 49, 77 | |
| | 305-4 | GHG emissions intensity | 77 | |
| | 305-5 | Reduction of GHG emissions intensity | 50 | |
| | 305-7 | NOx, SOx and other significant air emissions | 49, 77 | |
| Waste water and waste | 306-1 | Total water discharge by quality and destination | 50, 77 | |
| | 306-2 | Total weight of waste by type and disposal method | 50, 77 | |
| | 306-3 | Total number and volume of significant spills | - | No spill of hazardous substances during the reporting period |
| | 306-4 | Transportation of wasted deem hazardous | - | Entirely disposed of by third-party contractors |
| | 306-5 | Water bodies significantly affected by the organization's discharge of water and runoff | - | Entirely disposed of by third-party contractors |
| Compliance | 307-1 | Sanctions for non-compliance with environmental laws and regulations | - | No violation to environmental laws and regulations during the reporting period |

| Topic | Disclosure | Page | Omission/Comments | |
|--|------------|--|-------------------|---|
| Society | | | | |
| Employment | 401-1 | Total number and rates of new employee hires and employee turnover by age group, gender and region | 78 | |
| | 401-3 | Return to work and retention rates after parental leave, by gender | 78 | |
| Labor/Management relations | 402-1 | Minimum notice periods regarding operational changes | 67 | |
| Occupational health and safety | 403-1 | Percentage of workers in the management-worker health and safety committee | 77 | |
| | 403-2 | Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and gender | 50, 77 | |
| | 403-3 | Workers with high incidence of high risk of diseases related to their occupation | 50-52 | |
| | 403-4 | Health and safety topics covered in formal agreements with trade unions | 50-52 | |
| Training and education | 404-1 | Average hours of training per year per employee (by gender, and by employee category) | 78 | |
| | 404-2 | Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career ending | 66 | |
| | 404-3 | Percentage of employees receiving regular performance and career development reviews, by gender and by employee category | 66 | |
| Diversity and equal opportunity | 405-1 | Composition of governance bodies and breakdown of employees | 78 | |
| Freedom of association and collective bargaining | 407-1 | Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights | - | No cases of infringement |
| Child labor | 408-1 | Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor | 56, 67 | |
| Forced or compulsory labor | 409-1 | Operations and suppliers identified as having significant risk for incidents or forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor | 56, 67 | |
| Investment | 412-2 | Total number of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained | 67 | |
| Local communities | 413-1 | Percentage of operations with implemented local community engagement, impact assessments, and development programs | 72-73 | |
| Public policy | 415-1 | Total value of political contributions | - | None |
| Customer health and safety | 416-1 | Percentage of significant products and services categories for which health and safety impacts are assessed for improvement | 53 | |
| | 416-2 | Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes (by case result) | - | None |
| Marketing and labeling | 417-3 | Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes | - | None |
| Customer privacy | 418-1 | Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data | - | None |
| Compliance | 419-1 | The number of cases of and monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services | - | No cases of violation during the reporting period |

Third Party's Assurance Statement

To the Readers of LSIS 2017-2018 Sustainability Report:

Foreword

Korea Management Registrar Inc.(hereinafter "KMR") has been requested by of LSIS Co., Ltd. (hereinafter "LSIS") to verify the contents of its 2017-2018 Sustainability Report (hereinafter "the Report"). LSIS 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

LSIS 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 Standard indices as below, where professional judgment of the team was exercised as materiality criteria.

- GRI Reporting Principles
- Universal Standards
- Topic Specific Standards
 - Management approach of Topic Specific Standards
 - Economic Performance: 201-1, 201-3, 201-4
 - Procurement Practices: 204-1
 - Anti-Corruption: 205-1, 205-2, 205-3
 - Materials: 301-1, 301-2
 - Energy: 302-3, 302-4, 302-5
 - Water: 303-1, 303-2
 - Emissions: 305-1, 305-2, 305-4, 305-5, 305-7
 - Effluents and Waste: 306-1, 306-2, 306-3, 306-4, 306-5
 - Environmental Compliance: 307-1
 - Employment: 401-1, 401-3
 - Labor/Management Relations: 402-1
 - Occupational Health and Safety: 403-1, 403-2, 403-3, 404-4
 - Training and Education: 404-1, 404-2, 404-3
 - Diversity and Equal Opportunity: 405-1

- Freedom of Association and Collective Bargaining: 407-1
- Child Labor: 408-1
- Forced or Compulsory Labor: 409-1
- Human Rights Assessment: 412-2
- Local Communities: 413-1
- Public Policy: 415-1
- Customer Health and Safety: 416-1, 416-2
- Marketing and Labeling: 417-3
- Customer Privacy: 418-1
- Socioeconomic Compliance: 419-1

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

Our approach

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

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

Our conclusion

Based on the results we have obtained from material reviews and interviews, we had several discussions with LSIS 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.

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

- LSIS 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 LSIS left out during this procedure.

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

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

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

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

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

Recommendation for improvement

We hope the Report is actively used as a communication tool for stakeholders and recommendation for improvements

- Quantitative emphasis report: When a report is reported as quantitative rather than qualitative data, it will increase the trust of stakeholders. It is recommended to focus on quantitative data to improve the quality of future reports.
- Stakeholder diversity: It is important for stakeholders of different types and levels to participate in the process of developing and achieving strategic responses to sustainability management. It is recommended that future reports include channels for stakeholder engagement and reflect stakeholder expectations and concerns.

Our independence

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

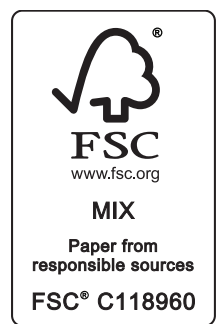
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