

Link the World Think the Future



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Sustainability Management

We have realized and formed a consensus on why sustainability management is important to our organization and what we want to achieve through it. However, we are still searching for the best way to implement, management methodologies. We report on our management activities for finding a better way to achieve sustainability, here.

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This illustrates our efforts and activities for sustainability management in 2012. We try to provide full and in-depth accounts of our approach and achievement focusing on the issues considered most important in our 7 sustainability topics, so that our performance can be easily understood.

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2012 in Figures

How likely are you to recommend our products to others?

Net Promoter Score (NPS)

Ethics Article Posting

49 times

Non Compliance with Law

 $\mathbf{0}$ cases

Customer Complaints

Improved by 68%

Greenhouse Gas Emissions

Reduced by **16.5**% 2012 - 192,000 tonCO2eq 2011 - 230,000 tonCO2eq

Energy Use (in terms of heats)

Increased by 0.6% 2012 - 3,102,391 GJ 2011 - 3,083,557 GJ

Ratio of Eco-friendly Products

 $$63\%\$ (of the total number of the product)

No. of Employees

2,447 persons

Female in Workforce

9.5%

Female in Management Role* *female member in the manager or higher position

2.4%

Sales

USD 3,810,435 thousand

Operating Profit

USD 67,082 thousand

R&D Investments

USD 34,217 thousand

Countries We Exported to

104 countries

6 Sigma Projects Conducted

100 projects

Financial Support for Suppliers

USD 40,146

Cash Equivalent Payments

100%

Donations

usd 139,115

Donation from Salary Rounded Down

USD 57,485

Occupational Accident Rate

0.23%

Average Training Hours

101.1 hours per capita

About This Report

Link the World, Think the Future

- ■線[s∧n] meaning wire, line, connection : We ensure the stable transmission of energy and information through high quality and eco-friendly cables.
- 先[sʌn] meaning first, prior, in advance : Through a ceaseless innovation, we desire to connect our society to the more stable future by providing power and communication infrastructures which are the bases of the future.
- 善[s^n] meaning good, right: We aim at connecting humans to humans, humans to societies and the present to the future with philanthropic activities.

With these 3[s/n]s, we want to contribute to creating a community of coexistence and a better future.

LS Cable & System 2012 Sustainability Report

Purpose of our Reporting :

Performance improvement and transparent reporting

- We continue to make progress toward long-term sustainability by reviewing our efforts and performance for increasing economic, social and environmental values. This report contains both financial and non-financial performance for balanced overview of the progress and activities for improvement.
- This report aims to provide information on our key activities and achievements with high level of transparency.

Reporting Scope :

Management activities and performance of higher importance

- This report outlines our performance and future plan of the issues that internal and external stakeholders consider important for corporate sustainable growth.

Reporting Period :

January 1, 2012 to December 31, 2012

- If deemed to deserve reference, activities carried out before 2012 and in the first half of 2013 are included and specified with the points of time.
- To keep track of trends in quantitative performance, three year's data (from 2009 to 2011) has been provided.
- We have published a sustainability report in June on an annual basis since 2011.

Boundaries :

Head office, plants in Korea (Anyang, Gumi, Indong, and Donghae), and research institutes

- There are changes in the subsidiaries (See page 18), but entities covered in this report has not changed, as it set the same boundaries as the previous reports.

Data Collection :

- Data was collected and processed from the Management Information System by Seven Sustainability Working Committees and the teams of performance review.
- The data of 2010 and 2011 were reused because there was no change in data calculation methods.
- All financial figures are presented in Korean Won (KRW) in the Korean version of the report and in US Dollars (USD) in the English version. (The data is based on the exchange rate as of December 31, 2012, 1071.1)

Assurance :

The information contained herein is subject to internal reviews and third party verification.

- For the 3rd party assurance report, please see page 90~91.

Reporting Guidelines :

GRI G3.1, AA1000AS, ISO26000

- This report is aligned with Global Reporting Initiative (GRI)'s G3.1 Guidelines and self-assessed our application of the Guidelines at level A+
- This report also serves as our Communication on Progress (COP) for the ten principles of the UN Global Compact at the 'advanced level'



2012 Material Issues

For us, sustainability management is a means of securing long-term growth engines by actively managing economic, social and environmental risks as well as of fulfilling social responsibilities by meeting the expectancy and demands of stakeholders. To promote sustainability management more effectively, we identify the most material issues in terms of corporate strategy and stakeholder's concerns and manage the issues based on the improvement plans which consider the relative importance of issues.

Materiality Mapping Process



Media analysis

15 Most Significant Issues and 3 New Issues

to focus on and meet better stakeholder's expectations.

High

nal

vith





Prioritizing the issues on urgency and importance in terms of social / cultural norms, stakeholder interests, business environment, and strategy implementations



Finalizing 'Most Significant' issues to report on through internal & external review and verification on the selected issues

Issues with internal importance

High

Chairman Message

First of all, thank you very much to all of you, customers and stakeholders for your constant interest and support of us, LS Cable & System.

This sustainability report, as our third report, contains the activities we conducted last year to create economic and social value. We are pleased to greet you through this report.

According to the economic outlook of experts, both the global and the domestic economies are expected to face slow growth this year, similarly to last year and the increase in uncertainty has been much greater. This seems to be a burden to business activities. Under these conditions, the importance of sustainable management can not be emphasized too much.

When looking back our history in celebration of the 50th anniversary in 2012, we have been in this position after going through several times of growth and crisis in period of times which is not too short. With each great challenge, we have led growth, and with patience wisdom we have overcome the crisis and accumulated competence.

Through these experience, we have learned that we need to have unique sustainable competence and consistently grow with our customers, suppliers and stakeholders as well as our community for sustainable growth. These competence and corporation would ensure our existence and perpetuity. Accordingly, we have actively practiced corporate philosophy of LSpartnership with our outside stakeholders, which was recognized as the internal principle of behavior. ⁶⁶ For sustainable growth, we need to have unique sustainable competence and we must consistently grow with our customers, suppliers and stakeholders as well as our community.

We promise that we will more actively participate in efforts to make a sustainable future and create greater value for our stakeholders. To further intensify our efforts, we are going to introduce our attitudes toward sustainable management, as shown below.

The first is to keep the basic principles.

The basis of all management activities is 'ethics', which requires for abiding by principles and basics and keeping everything transparent and reasonable. We will make all efforts to do right even though we move a little slowly by putting the value on fairness rather than on fastness.

The second is to accept changes provocatively and creatively.

The corporate environment surrounding us will change in a faster and more unexpected way. Without rejecting or neglecting such changes, we will positively accept the challenge and take it as an opportunity for growth. To this ends, we will strengthen business competence and effectiveness through more flexible and more creative thinking.

The third is to make all efforts to communicate with stakeholders.

We will listen carefully to the opinions of our stakeholders such as customers, communities, employees, suppliers, shareholders and investors and complete our mission to 'make a better society without any estrangement from information and energy' taking it as a chance for improvement. We will keep our promise with stakeholders.

All of you, stakeholders, we will make all efforts to be your best partner that helps you to realize your dream by bringing successful results even in the future. Thank you very much for your supports again.

2 24 14

Chairman Cha-Yub Koc

CEO Message

2012 is the year of the 50th anniversary of LS Cable & System. What do you think LS Cable & System's mindset would be to achieve sustainable growth over the next 50 years?

We celebrated our 50th anniversary in 2012. To compare to human beings, we are at the age of looking back on ourselves and prepare for another future, rather than just go forward. That is, it is the age of assuming responsibility for our own looks and becoming enlightened about Province, after going through adolescence when we were willing to take a bold move. To achieve sustainable growth and become a respected and loved company for the next 50 years, we think deeply our strengths and weaknesses and prepare for the future with a modest attitude in 2013.

How do you evaluate the management performance in 2012?

In terms of business performance, we made progress compared to 2011, but with some setbacks. In 2012, global economic recession was apparent as fiscal tightening in advanced countries was prevalent due to continuing fiscal crisis and as slow economic growth was exhibited in developing countries, as well. In response, we coped with the sluggish economic growth by focusing on our core business-such as extra high voltage cables—and by expanding meaningful overseas contracts in new business such as submarine cables. Such efforts helped our separated earnings successfully return to black balance, but due to the reduced income and unexpected non-recurring losses of domestic and overseas subsidiaries, we failed to achieve the same outcome in the consolidated income statement. In order to create economic value as the fundamental of sustainable management, all of our employees will do their best by implementing crisis management for overcoming the current hostile business conditions.

For future business, I think we laid the foundation for the company's future growth with meaningful performances including large scale submarine cable projects and new power cable manufacturing facilities in the U.S., China, and India. In particular, the power cable manufacturing facility newly constructed in China may produce up to 500kV class products. We believe this will be an opportunity to upgrade our ability to provide product with high quality and high technologies to customers in China as well as in the rest of the world.

We found the power of LSpartnership in the corporate partnership with suppliers and plan to continuously strengthen this win-win growth relationship. We've provided strategic supporting programs of finance, payment terms, R&D, training and 2nd tier supplier assistance with management of dedicated tem. In 2012, we succeed in 11 joint development projects with suppliers. Through these corporative activities for win-win growth, we will provide greater value not only for ourselves and suppliers but also for all communities.

In environment management, I would like to say that we have firmly established our green management system and have expanded implementations. In 2012, greenhouse gas emissions were reduced in both total amount and intensity for three consecutive years, and eco-friendly products reached 63 % of the number of the products. In particular, in line with the approach to expand our efforts to preserve environmental value to the supply networks, we strongly support suppliers to respond to climate change. We conducted an energy diagnosis of the supplier's worksites and supported the development of eco-friendly products. Among them, 10 suppliers established their GHG inventory system.

However, there is a challenge that further improvement is needed. We want to drastically increase the level of green management as our future business to lead the global green business. For this, we plan to expand development of green technology and products.

⁶⁶ We will create a new history over the next 50 years full of creative energy with unassuming attitude through profit model innovation, global competitiveness and responsible management. To achieve this, we are going to listen to your advice. 99

Please explain the management policy for 2013.

Unfortunately, the global economic outlook for 2013 does not seem bright. Global economic recession will likely last for a while. Therefore the competition among companies for survival seems to be fiercer as well. Even though we are facing a difficult business environment, we established the following management policies to overcome this challenge and achieve the business objectives.

First, we will innovate profit model.

We will intensify our efforts to achieve better results in our new businesses including submarine cable business, while maintaining profitability in the main businesses such as extra high voltage cable business. We will also be committed to maximizing the performance of our subsidiaries and realizing investment performance earlier.

Second, we will strengthen global competitiveness.

We will secure competitiveness by satisfying our customers with high quality, competitive price and on-time delivery. We must ensure that the already established business model lead will lead to actual performance. By fully utilizing our global bases, we need to identify customers' needs and realize them in entire product life cycle.

Third and lastly, we will realize responsible management.

All of us will complete our jobs, focusing on execution. To give more value back to stakeholders, we will strive to achieve our goals, incorporating this attitude into our corporate culture. We also will become a trustworthy company to shareholders, customers, employees, and local communities through fair competition and strengthened risk management.

We will create a new history over the next 50 years, driven by creative energy by strengthening our ability in the current crisis.

We look forward to your advice and supports.

The Sen Km

President & CEO Ja-Eun Koo

Who we are

We are a global leading company that develop, manufacture and provide various kinds of cable systems used for energy delivery and telecommunications. In electricity and telecommunication area, a cable refers to wires to carry electric currents or signals. Since the cable delivers energy and information to society, it can be considered the "blood vessels and nerves of society". We are committed to the better circulation of energy and information by creating healthy blood vessels through constant technological developments and product innovation.

LS Cable & System, Vehicle of Energy and Information

A cable industry as a national key industry performs the role of delivering energy and information throughout industry and society by providing **energy cables** used to supply power for home appliances and industrial use, **communications cables** used to send and receive data, audio and video, and **industrial cables** to supply, communicate, and control power in electric and electronic devices. We are responding to global cabling-related projects with 9,028 employees in 25 countries around the world, with manufacturing facilities and high technology that are able to supply various products, and partnerships with stakeholders.

Company Name	LS Cable & System	Assets (thousand, USD)	3,312,947	Employees	2,474 persons (9,028 including domestic and overseas subsidiaries)
Headquarters	Anyang, Korea	Sales (thousand, USD)	3,810,435		Energy cable, Telecommunication cable,
CEO	Ja-Eun Koo	Operating Profits (thousand, USD)	67,082	Business Area	Materials, Integrated module
Founded in	1962	EBITDA (thousand, USD)	118,602	Number of Subsidiaries*	20 (6 domestic and 14 overseas companies)
			,	Jubsiciaries	

*Subsidiaries that LS Cable & System holds a majority of voting rights

Our Response

Industry Characteristics

,					
Large Scale Facility Investment	Quality, reliability and technology is critical as a cable is used in large scale projects, such as infrastructure investment. Accordingly, it is important to have large scale manufacturing facilities and long-term R&D abilities.	 Build large-scale manufacturing complexes through cooperation with local communities Improve efficiency in facility management 			
Multi-kinds & Multi-standards	As a cable has more than 100,000 varieties in types, it is important to develop and supply a variety of kinds of products to meet customers' needs. In particular, it is essential to have product developing ability, which requires high technology.	 Identify market & customer needs through communication Foster new technology and products development ability 			
Huge Impact of Raw Materials	A raw material accounts for more than 70% of manufacturing costs. Given highly fluctuating international commodity price, risk control is important for business management.	 Ensure stable supply of raw materials through vertical integration Build a company-wide management system for mitigating raw material and exchange rate risks management system Reduce resource use through resource recycling 			
Importance of Reliability & Quality	As a cable is industrial materials used in the infrastructure, its reliability, durability, and quality are critical. In these days, safety and eco-friendliness have been increasingly important.	 Secure platform technology through R&D Build a company-wide quality management & assurance system Expand development of eco-friendly products 			



Our Activities and Impacts

Our activities include reducing negative impacts from business activities and increasing values of such as customers, suppliers, shareholders, employees, and local communities influenced by our activities, not only manufacturing and selling. In the entire life cycle ranging from securing raw materials, manufacturing, utilizing, disposing of, to recycling, we carry out all efforts to build a sustainably prosperous society through our activities and products by closely analyzing the values provided to the community and the stakeholders.

Pro	cess	Raw Materials			
		We make a purchase of raw materials (non-ferrous such as copper for production of conductors, polyethylene as insulating materials, etc.) for manufacturing cables from suppliers and energy sources required for manufacturing activities.			
Our Bu Acti		- Transactions with about 1,000 suppliers - Costs of Materials : USD 2,691,019 thousand			
		• Raw materials used (ton) - Copper : 175,291 - Aluminum : 21,939 - Polyethylene : 26,893			
		• Purchasing prices - Linked to international prices of raw materials			
Imp	acts	Positive Effects Contribution to the suppliers' sales growth Contribution to the local community developments by local procurements Negative Effects Use of resources and energy			
Impact					
	Society	 Fair selection of suppliers Fair transactions with suppliers Supporting program for suppliers' competitiveness 			
Impact Management	Environment	 Reduction of greenhouse gas emission Purchases of green products 			
	Economy	• Exchange rate / raw material risk management			



Our Products

Energy Cable

Main Customers

Port corporations

Shipbuilders

Specialty Cable

with excellent

heat and flame

Marin &

Offshore Cable

for ships and offshore plants

resistance

Used to transmit power stably and effectively



FTTH^{Fiber} to the Home for providing unprecedented high-speed internet

Telecommunication Cable



Optical Fiber / network

communication

Optical Cable for

wired and wireless

access to homes

Leading edge Construction Technology such as Live-Line

Busduct System having advantage of distributing a large amounts of power with flexibility

and effectiveness in confined

spaces such as factories and

apartment, etc





Wind Power Cable vith a high durability of 15,000 and more spins for 20 years and *Monitoring* System for wind power generation

Eco-friendly Cable

that contain no

hazardous

substances



LS tall

Power Distribution Cable for supplying power stably to residential or commercial buildings

Extra-high Voltage

that transmit massive

quantities of electrical

Submarine Cable System

quantities of electric power

between land and islands

for transmitting large

& telecommunication

between islands and

Cable and Joints

power



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Integrated Module & Cable Materials Basic materials for industrial use Used to supply power, operate, communicate, control, and protect such as conductor and compound Main Customers Main Customers Automobile manufacturer Construction company Sales Ratio Sales Ratio Home appliance manufacturer Home appliance 46.1% 5.6% Companies in defense industry manufacturer Commutation equipment Automobile manufacturer Automotive Cable, **Connector & Harness** used to provide power to all devices required to drive vehicles High purity Copper Rods using only copper cathodes Military Cable used for sending signals and / or power to weaponry such as tanks, aircraft, naval vessels. A high-strength XTALeXtra Thermal Aluminum Alloy conductor for overhead transmission lines Industrial Cable & Module used to supply power and signals to electric / electronic devices and factories 0.016mm-wide A Magnet Wire used for converting MCX Micro Coaxial Cable electric energy to electromagnetic or modules with mechanical energy, and to convert compact size and mechanical energy to electric energy, excellent flexibility inside electrical or electronic devices

LS Cable & System in our Life

1 Power Transmission

sion

Our products transmit large quantities of electricity generated at power plants to where it is needed via extra-high voltage cables safely and with minimal electricity loss.

 Extra-high voltage submarine cable systems, Extra-high voltage cable systems, IT solution for transmission & operation, Overhead transmission line, Optical fiber overhead ground wire

2 Railways & Rolling Stocks

We provide a wide variety of power/telecommunications/ signaling systems used for rolling stocks, railways, and railroad stations. Also, we supply carpet for passenger cars and feeding systems for heavy Rails.

 Catenary wires, Messenger wire, Wired & wireless telecommunications system, Signaling system, Controlling cable, Feeding system, Flocked carpet, Dust-proof rubber tile

3 Airports 🎉

On top of providing a stable power supply and the telecommunications infrastructure necessary to build an ultra high-speed wired & wireless telecommunications environment to the airport, we provide optimal and customized solutions fit for special use of airports (runways, boarding bridges, baggage management system and airport railways, etc.)

Runway lighting systems, Airplane power supply cable, Baggage management system, Wired & wireless telecommunications system, Fire-alarm/CCTV/Lighting/Control system, Busduct system, Low/medium/high voltage cable system, Power/Control cable for boarding bridges, Flocked carpet, Rubber flooring, Heat shrinkable tube, LED lighting, Heating cable, Power/Telecommunications/ Control system for airport railways, Conductor rail



We support for convenient and safe modern cities by providing our U-City solution which includes : **U-Green** (weather and environmental pollution data, water & sewage leakage management, etc.), **U-Life Safety** (crime, disaster, accident prevention, etc.), **U-Traffic** (traffic signal control, bus arrival information guide, transfer guide, public parking lot management, etc.), **U-FMS** (public utilities maintenance, streetlight control, etc.), **U-Education** (remote learning, e-Book, etc.), **U-Portal** (mobile civil petition, wired & wireless portal, media board, etc.), **U-Street** (infrastructure for high-speed wireless telecommunications, etc.), **U-Gallery** (information on exhibitions/conventions and visitors), and other solutions such as the EV Electric Vehicle charging infrastructure.

Power distribution cable system, IPTV solution, WiFi solution, HFC solution, Antenna for base stations, Next generation broadband wired & wireless network system, EV charging infrastructure

5 Telecommunication Network



► Optical fiber, Optical fiber cable, LAN cable system, Coaxial cable, FTTH solution

6 | Automotives

We ensure safety and convenience by providing cables, harnesses and components used in fossil fuel-powered vehicles and EVs.

Aluminum PFC tubes for heat exchangers, Magnet wire for motors, Heating wires for seats, GPS, Hi-pass terminal, Cable for power supplying/signaling/controlling/telecommunications, Heat shrinkable tube, High voltage components for hybrid & EVs, Aluminum panels, etc.



We supply cable systems that deliver electricity generated at power plants (hydroelectric, wind, thermoelectric, solar or nuclear power, etc.) and a wide range of cable systems for telecommunications, control, and monitoring, as well.

Superconducting cable systems, Extra-high voltage cable systems, Industrial specialty cable, Wired/wireless telecommunications network solution, Sensor cable, Wind power generation solution, Photovoltaic power generation, CTC for transformers, Fire/ Earthquake/Outskirt monitoring system, Fireproof sealant, Magnet wire for motors, Heat shrinkable tube, Flooring, Lighting system, Water quality/weather information management system



We provide safer packages that include electric power/controlling cable system for special equipments used for mining, as well as integrated cabling/transmission & distribution system for the safety and efficient management of workers and resources.

 Excavators, Portable transformers, Specialty cable for conveyor belts, Wired & wireless telecommunications cable system, Power distribution cable system



We contribute to enhancing production efficiency by providing busduct Systems that enable easier power supply in accordance with changes in the factory layout, as well as factory automation and telecommunications/control cable systems.

 Power distribution cable system, Busduct system, FA cable, Wired & wireless telecommunications system, Oil leak/fire/facilities surveillance system, Heat shrinkable tube, Flooring/Carpet/Lighting system



We provide solutions that control, monitor and operate the systems to supply power and telecommunication networks for buildings so to enable a safer and more efficient building management.

Fire surveillance system, Wired & wireless telecommunications solution, Busduct system, Low & medium voltage cable system, CCTV, Entrance/parking management system, Building information system, Video conference system, In-building broadcasting system, Building control center system, Data center



We ensure a more prosperous way of life through our products used in home appliances such as TVs, refrigerators, and cell phones, as well as through our security system, fire surveillance system, FTTH system, power distribution system, soundproof materials for floors, and U-Home (home care, remote medical treatment, etc.).

 MCX cable harness, FTTH, LAN system, Magnet cable for motors, Wire for backlight units, CCTV, Fire surveillance system, Medium & low voltage power distribution system, Soundproof materials for floors



Our power distribution networks supply massively transmitted power to the distribution line of factories, buildings, and households from substations.

►Low and medium voltage cable, Industrial specialty cable, Busduct system, CTC for transformers



We provide a wide variety of cables and cable accessories used for yard/marine cranes, which solve the issue of transhipment capacity needed to respond to increasing global trade.

 Reel cable, Festoon cable, Special (Spreader, Lift, Chain, Remote) cable, Connectors, Control system

14 | Ship, Vessel, and Offshore Plant

We provide a wide range of wired and wireless solutions that supply power to ships, vessels, and offshore plants, control various equipment and enable telecommunications. Used in isolated spaces in special environments, these systems features fire, heat, cold, earthquake, mud, frost resistance.

 Industrial specialty cable system, Busduct system, Submarine cable system, Wired & wireless network solution, Fireproof sealant, Umbilical cable, Flocking carpet

Go Beyond! Opportunity, Challenge, and Our Response

As the infrastructure for power transmission were completed in many advanced economies at the 1980s, and the IT boom subsided early in 2000, the cable industry was considered to be at the mature stage when a growth slowed down. However, thanks to the increase of worldwide energy demand and advancements of information and communication service, the industry has been provided with new opportunities for growth. There are risks present by climate change, demographic change, global economic recession and rising commodity price, however we strengthen resistance to risks by pursuing product/market diversification, ethical management, and environment management through communication and cooperation with stakeholders.

Mega Trends



New Business Environment

	Оррон	rtunity		Threat
• Development of Information & Networks hig • Increasing Demand for High- efficiency & High-quality products por		Increasing replacement necessity of worn out electric grids in developed countries and expanding power grids in emerging countries	• Slow Economic Growth	A delay of infrastructure investment, and slowdown of backward linked markets due to economic recession, and the consequent fiercer competition
		Needs for building next generation, high speed, intelligent IT networks	Stricter Global Regulations	Reinforced regulations on international trade, tax, competition, and environment etc.
		Growing interests in highly efficient power grids including extra high voltage cables	• Fluctuation in the Commodity Price and Exchange Rates	Increasing fluctuation in prices of raw materials such a copper and foreign exchange rates
Our Response	global manager • Developing and	mized services in response to global cable c ment I innovating highly efficient and high qualit technology, quality, and price competition tl	ty products	Compliance and ethical management Strengthening risk management system Building eco-friendly worksites and developing eco- friendly products

Trend Report - Extra High Voltage Transmission

Our Quests for products which are more Effective and more Eco-friendly and contributes to making human lives more comfortable

About 15% loss of power is estimated to occur around the world as it is transmitted from power plants to the end-user. While line losses in Korea are less than 4%, some countries lost its power to line losses up to 50%. It's a pity that a large amount of power at 50% is lost in the course of delivery, although it is produced with lots of resources and efforts. To help transmit electric power energy for valuable resources of mankind to be substantially intact, we take the lead in supplying extra high voltage cable systems.

How to reduce GHG emissions during transmission and distribution?

It could reduce 1.2 trillion metric tons of CO₂ in Line Losses

IEA*'s World Energy Outlook forecasts that the global temperature will rise by 3.6°C by 2030, if energy consumption continues at its current level. While greenhouse gas emission reduction is a global challenge, it is expected to reduce 1.2 trillion metric tons of CO₂ if 1.4 trillion kWh energy lost in transmission line is saved.**

How to contribute to solve longer distances transmission of renewable energy?

It could improve transmission efficiency of renewable energy, projected to grow up to 31%

Unlike thermal power generation, renewable energy has a long transmission distance, because many places that are good for making renewable energy -water affluent or sunny areas- are likely to remote away from places where power is consumed. While renewable energy is expected to increase to 31% of global power generation by 2030, power transmission at higher voltage is required to carry electricity over long distance. How to contribute to alleviate global power shortage?

It could seize more electric power without building additional power plants

As world growth of electricity production has been lower than real economic growth rates since the mid 1990s, a lot of countries around the globe face electricity shortages. Large-scale blackouts occur in many countries, and the electric power reserve rate of Korea remains 7%. To grapple with power shortages, large-scale power grid across countries is actively discussed. A wide area transmission network may be built through extra high voltage cables that carry high volumes of electricity across great distances.

* International Energy Agency, ** www.greentchmidea.com, an article on Jun. 20, 2012

Why transmission at high voltage is more efficient?

Let's suppose that a pitcher throws a baseball and a basketball. When the balls reach the batter's bat, the speed of the baseball is much faster than that of the basketball. In case of the baseball, it starts at 150 km/h and travels at 148 km/h when it reaches its target, slowing down by 2 km/h. By comparison, the basketball loses its speed by 30 km/h by starting at 60 km/h but ending at 30 km/h. To apply this example to electricity transmissions, the size of the ball is electric currents, and the air resistance is electric resistance in transmission line. Because power lost is inversely related to the square of the voltage, the higher the voltage is, the less current is needed. Also, electricity lost is less where less current flows.

We are supplying 500kV and higher voltage of XLPE insulation cables and extra high voltage submarine cables, which are our key products, by improving voltage grades and technology and by successfully developing related devices and joints since our first delivery in 1983. Furthermore, we have carried out a research on transmission by superconducting cables and are almost close to its commercialization. This rapid growth is achieved by customer oriented approach to fulfill customer's needs. The customers have also very interested and invested in efficient power transmission systems.

- **Superconducting Cable :** A cable which may carry large quantities of energy by using a super conductor whose electric resistance is reduced to zero at below certain temperature
- Submarine Cable : A cable that transmits energy through sea beds. It can be categorized into a DC (Direct Current)cable system for long distance transmissions and a AC (alternating current) cable system for coastal projects including wind power generation.
- **Underground Power Cable :** Buried underground, a cable includes a XLPE cable using PE insulation, an OF cable using oil impregnation insulation paper, and an optical fiber combined cable.
- **Monitoring System for Transmission Lines :** A system for monitoring cable operation
- Joint Material & Accessory : A joint material to connect cables due to the limitations of cable transportation and manufacturing



Where we operate



We operate 37 plants, 64 sales and marketing branch/offices, and 6 R&D centers in 25 countries.

■ Sales Branches ■ R&D Center

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Vision & Strategy

We are willing to deliver energy and information in the most efficient way to every corner of our society for our present and future generations. To perform this role, we are committed to achieving our vision of being 'Your No. 1 Creative Partner' by building partnerships with our stakeholders and providing the greatest value through innovation and best services, based on our philosophy of 'LSpartnership'.

Your No. 1 Creative Partner

Our vision is to build partnerships with stakeholders by providing the best service for current and future stakeholders through creative methods that nobody else can imitate. This is based on our beliefs on network corporations that has been inherited over the past 50 years, power of innovation and creativity, and passion to practice these beliefs. By keeping our spirit of challenge and passion and upholding our tradition of partnership, we will be a trustworthy partner for stakeholders including our customers for the next 50 years.











For internal and external stakeholders in present and future

Provide "Unique and Best" products, services, and values

By creative and innovate ways for providing best solutions



LSpartnership

LS is... faithful and reliable partner

great success though collaborations

IS people lead

LSpartnership for Greater Value

For sustainable growth and development in an era of uncertainty and change, we share and practice the value of 'partnership'. LSpartnership is an attitude and direction that realizes this vision. It entails internally achieving great performance through mutual respect, care, and trust by talented employees that are armed with a sense of ownership,

while externally cooperating with open-mindedness and growing together with stakeholders. We will prove our authenticity of LSpartnership by growing with our partners, customers, employees, suppliers, shareholders, investors, and local communities.

- **Respect** To understand partners and their values, and cooperate with sincerity
- Care To provide a chance for partners to display their capabilities and help them succeed
- Trust To make all efforts in partnerships based on responsibility and expertise
- Integrity To comply with principles and basic rules based on morality and work in a transparent and reasonable manner



Strategic Initiatives

- products and services from the perspective of customer, which ensure convenience of customers.
- generated synergies among subsidiaries in global locations.
- waste elimination activities, as well.
- securitization and effective operating assets.

Sustainability Management

Since the cable industry has a great influence over our society and future generations as one of the axis of the industrial infrastructure, we fulfill our responsibility of realizing stakeholders' value over the long term and grow as a sustainable company. To achieve this, we established a sustainability management implementation roadmap in 2010, which contains plans for fulfilling stakeholder expectations and operating green business, not only improving financial performance. The Secretariat and the 7 sustainability working committees are two organizations for sustainability executions; the Sustainability Management coordination secretariat is responsible for the company's sustainability management and 7 working committees (Green Management, Customers, Social Contribution, Ethical Management, Risk Control, Employees, and Suppliers) are carrying out the specific strategies outlined in the roadmap. In 2011, we successfully completed Phase I, 'building the framework' and are carrying out Phase II with a goal of 'enhancing implementation process and promoting sustainability management throughout our subsidiaries at home and abroad'. The significant issues and performance related to our sustainability management are reported to the corporate highest decision making body, 'Executive Business Conference', to discuss action plans and monitor the progress. For a more effective expansion of sustainability management into domestic and overseas subsidiaries, we have a plan to carry out an optimized strategy reflecting business environment and characteristics of the local workplaces.

Sustainability Management System

PLAN
Goal
To build a global sustainability management system that aligned with the management process
Roadmap
Phase D 2010~2011 Framework Build-up - Establish enterprise-wide sustainability management organization - Implement a response system to ISO26000 standard
Phase II 2012~2013 Internalization & Expansion - Enhance a Plan-Do-See system - Expand to domestic and overseas subsidiaries
Phase III 2014~2015 Integration & Differentiation - Integrate sustainability management strategy & business strategy - Implement strategy at a global level

• To Strengthen Global Management Competency We will secure and strengthen our competencies to continuously provide values for stakeholders under the changing global environment. To achieve this, we focus on strengthening our core competencies : technological competitiveness through R&D, talent nurturing that implement business strategies, and organizational culture of 'creating greater value through cooperation'.

To Innovate a business model To provide greater value for customers and build long-term partnerships, we plan to restructure our business model with greater focus on customers. We will nurture future oriented products such as extra high voltage cables and submarine cable etc... which are expected to increase in customer demands. Also, we will perform customized and value-adding businesses by providing packages of

To Maximize Overseas Business Competitiveness To closely support the needs of global customers at local sites, we have established production and sales bases that connect 25 countries in 6 continents. Going beyond the phase of foundation build up and stabilization, we will focus on enhancing our overseas business competitiveness through (1) advanced business structure, (2) strengthened core competencies and (3)

To Improve Profitability We will make efforts for increasing profitability so to share values with stakeholders and sustain virtuous cycle of profit creation and investments. To this end, we are expanding profit base by (1) improving the performance in existing businesses area, (2) realizing desired outcomes from projects that have been fostering as our new growth engines, and (3) heightening operational efficiency through constant

To Improve Financial Structure It is true that our debt ratio has increased slightly due to our active investments aimed at securing a longterm growth engine. Nevertheless, we plan to enhance financial stability through the active financial structure improvements including asset



Effective Execution of Strategy

We are committed to enhancing performance by 'executing' our established vision and strategy. We have secured competencies throughout the entire value chain including R&D, production, sales, and building strategy, while our business has grown significantly in terms of external growth through continuous investments over the past 50 years. For the next 50 years, we will create full-fledged performance based on already secured competency and improve execution through responsibility and detailed management of goals and performance.

Process for Driving Execution

We have established ambitious goals and strengthened our internal capability to create a new growth engine until now, but we will put priority on achieving the established goal focusing on execution in the future. For this, we will reinforce a performance-driven culture to clarify compensation and responsibilities, while establishing reality-based detailed plans and sharing with employees.

Perfo	rmance	Competency		Execution
• Mid term Act	nieving annual goal nieving mid-term ategy	Technology, Facility, Organizational culture, Creative in	deas	Ceaseless execution and management to achieve goal
Establishment of Realistic Goals	Based on the ana guideline for direc execution of the s	ar and detailed goal reflecting external situation ysis on external environment and internal co ctors, teams and team members to set their trategy much more in the future, we will dra may be obstacles to achieve the goals under t	mpetencies, mid goals and perfo w up a realistic a	term strategy is built up and play a role as srmance index early each year. To improve nd detailed plans, and closely monitor and
Consensus & Sharing of Strategies and Goals	goals, we increase their organization evaluation is cond • We share the corp	employees to participate in the entire proce e understanding and responsibilities for strate al and individual goals linked to business plan ucted based on the CM. orate strategies and performance with all en ation announce business goals and implemen	egies. CEO, direc ns in the form of nployees. From 20	tors, team leader, and members agree on the Consensus Meeting (CM). A year-end 013 in particular, the CEO and head of the
Clear roles & responsibilities	clearly identify his • We also decide w for each tasks etc	ho is right person for the tasks and what is ., through a corporate level meeting in whic re plan to reinforce a responsible implement	the effective way ch the CEO and t	y to secure and train workforces qualified the heads of the organization participate.
Continuous Progress Review	At each worksho made by each or • We measure the only 'performanc	m strategy and discuss the plan for achieving p the attendees check whether the mid-a ganization maintain consistency and validity effectiveness and efficiency of executing or e' itself but the factors creating such perf icient performance and immediate responsi	nd long-term st ur strategy in mo ormance. In the	rategies, short-term goals, and progress onthly or quarterly basis. We analyze not
Support for Promoting Execution	execute or lag be the cause behind relevant organizat irregular internal c In 2012, to achiev	e the technical level and understanding of t nind the originally planned schedule, we pro the problems at first, we take corrective meas ions, external consulting, and training, consid liagnosis, we take actions to provide support e the goal of strengthening quality level in cor on on quality problem solving skills. Also, we mer response.	vide the supports sures such as mar ering the each ca at the right time rporate level, we	s to solve such problems. After identifying nagement feedbacks, supportive actions of ausal factor. Especially, through regular and by identifying the problem in advance. run 'Quality Innovation Academy' program

Governance

By establishing a robust and responsible management system, we would like to enhance our management performance and strengthen trust of stakeholders. We comply with Korea's commercial law, OECD's principles regarding the corporate governance, and the Articles of Incorporation which specifies a corporate decision-making process and roles of the operating body. Also, we have established a responsibility system of functional organization and developed it as a part of our culture.

Management Efficiency through the Holding Company

In 2008, the former LS Cable Co., Ltd. split into LS Cable & System for the cable business, LS Mtron for the machinery and electronic business and LS, a holding company. As a result, LS Cable & System became an affiliate of the LS Group. A holding company system helps us focus on our own business, so to specialize in it and create synergy among subsidiaries under the coordination of the holding company, as it separates investments and businesses. As of the end of 2012, LS holds 86.95% of the shares of LS Cable & System as the major shareholder.

Responsible Management by Board of Directors

Our Board of Directors (BOD) has comprehensive authorities regarding management and reviews and decides important business issues including corporate strategic directions and investments on behalf of the interest of stakeholders, such as the company, shareholders, and employees. Board members are appointed at the general shareholders' meeting and have limited voting rights in the resolution on agendas of special interest, to avoid conflicts of interest. As of April 2013, the BOD consists of three internal directors, and the chairman serves as the chairman of the board since cable industry requires extensive investments and rapid response to various risk factors that prevail at our overseas business sites.

The Board Meetings are held according to the pre-established annual plan, on a regular basis, and special meetings can be convened for immediate decision making. In 2012, 19 board meetings were held in total, in which 35 agendas were passed, including new investments, compliance program and evaluation results of internal accounting management system, etc. (Refer to 2012 Business Report, for details).

Qualification

First, the director should be honest and ethical and have a so sense of vocation. **Second**, the director should think of future of company and society in the long-term view, with sound judgm and driving force for performance. **Third**, the director should hexperience and expertise in the cable business.

Evaluation and Compensation

Remuneration to directors is provide based on their work performawithin the capped amounts approved by the general meeting shareholders. The evaluation is made in accordance with performaindicators linked to business goals and evaluation purposes, w includes financial performance as well as innovation, risk managem organizational culture, worksite safety, environment, and et management performance.

Management Transparency

For transparency and fairness, we carry out internal / external audits and internal diagnosis. In compliance with Korea's commercial law and internal rules, external audits by a third party accounting firm and internal audits by the auditor appointed through a general meeting of shareholders are conducted to verify appropriateness of our management and accounting. In addition, we review whether all business activities are implemented in a rational manner and employees perform their works in an ethical and effective way, through internal diagnosis. We regularly disclose the information that may significantly influence on stakeholders, including business performance, investments, and sustainability management performance, on the website and electronic disclosure system by the Financial Supervisory Service.



Name	Position	Gender	Responsibility	Transactior with Company
Cha-Yub Koo	Chairman	M	Chairman, Cable Business of LS Group (LS Cable & System, Gaon Cable, JS Cable)	None
Ja-Eun Koo	CEO	M	CEO	None
Roe-Hyun Myung	CFO	M	Director of Corporate Support Group	None

Stakeholder Engagement

Fulfilling social responsibility by meeting the expectations and demands of our stakeholders is our definition of sustainability management and the driving engine that allows a corporate sustainable growth. We listen to our key stakeholders-customers, employees, shareholders, and suppliers and carry out every effort for our managerial activities to increase corporate and stakeholder value together. Additionally, we receive stakeholder's feedback on our activities and make use of improving performance.

Communication with Stakeholders



Listening to Opinions of Our Stakeholders

Our sustainability management can be realized through communication and cooperation with stakeholders. To take one step closer to stakeholders and listen to opinions about what we are doing well and what we need to improve, we have conducted surveys of stakeholders since 2010. The result of the survey in 2012 showed that compliance, anti-corruption, product liability, worksite safety, and environmental management received positive assessment. On the contrary, stakeholders responded that we need to be more active in communication with customers, support for suppliers and organization culture improvement. While reflecting the precious opinions of stakeholders in our business activities, we strive for meeting their expectations by enhancing communications.

- Survey methods : E-mail, Fax, Intranet
- Period : November 21, 2012 to December 15, 2012
- Analysis: Consumer's response was evaluated on a 10-point scale and suppliers and employees' at 7-point scale.

Customers

company.

solving of complaints (85.3), and communication with customers (85.6).



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Suppliers

- on support for suppliers (80.0) and communication with suppliers (82.8).
- we supported overseas training and joint business with our overseas subsidiaries for helping suppliers' sales increase.
 - LS C&S thoroughly manages environment pollutants LS C&S strictly adheres to policies and regulations LS C&S 's payment system is reasonable

LS C&S strives to develop

LS C&S complies with

environment-friendly products

LS C&S makes efforts to prevent

occupational accidents at work sites

environmental rules and regulations

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Employees

- of female employee (70.5), work-life balance (73.7), and vibrant corporate culture (74.7).
- consist mainly of 119 campaign for making better each team's dinning culture and the refresh leave.



• Number of participants: 43 customers (29 overseas customers, 14 domestic customers), 18 suppliers, and 302 employees We convert survey results to the score on the basis of 100 points with the lowest score of 'very negative' as 40 points

• Customers' Opinions : Customers evaluated positively our compliance and anti-corruption (90.4), global management competency (90.0) and product satisfaction (91.3). They, however, asked for closer cooperation with customers by improving customer service (85.2), rapid

• Our Responses : To improve customer services, we offerd a training on responding customers for salesperson in 2012 and held a contest to praise excellent performance of cooperating with customers so to share how to communicate and respond to customers throughout the

LS C&S provides a greater customer service LS C&S strives to solve customer complaints LS C&S listens to customers' voices

	85.2
	85.3
	85.6

• Suppliers' Opinions : Positive assessments were given to environment pollutant management (90.0) and compliance and anti-corruption (90.0). In regards to performance for suppliers, suppliers evaluate our payment most highly (93.3). However, awareness was relatively low

• Our Response : To strengthen communication with suppliers, we plan to provide supporting programs reflecting supplier's needs. In 2012,

90.0 90.0 ZZ 93 3

LS C&S provides various supporting programs to suppliers LS C&S responds to suppliers' opinions actively LS C&S has a positive and vibran corporate culture



• Employees' Opinions : Employees responded that our environment performance is positive in overall , but there is room for improvement when it comes to our activities related to employees. In particular, the following issues was identified to be relatively low : career development

• Our Response : To improve the corporate culture and the work-life balance, we actively promoted the LSpartnership program which

86.5 87 0

LS C&S is active at developing female employees capabilities LS C&S strives to promote the culture of local communities LS C&S tires to support for work-life balance



What we did in 2012

Торіс	Material Issue (Aspects)	Mid/Long-Term Approach	Management Group	What we did in 2012	Progress	What we will do next?	Page
Finance & Creativity / Innovation	Economic Value Creation	Improve profitability by maintaining profitability in the main businesses and by creating better results in our new businesses	All division	 Sales (in million) : LS C&S-USD 3,810 (Consolidated 7,391) Operating Profit (in million) : LS C&S-USD 67.1 (Consolidated 103.6) 		 Sales (in million) : USD 4,000 or more Operating Profit Rate : 4.5% or more 	32~33
Links to	New Technology & Product Development	Aggressively develop new technologies & products by increasing R&D investments	Technology Development Group	 R&D investment : USD 35 million MOU of developing super-conducting cables (Joint development with KEPCO) Developed cables for Smart Grid Expanded into a high-value added market in North America, Europe, and Asia based on quality / cost competitiveness 	•	 Expand cross-selling in global network R&D investment : USD 30million Increase new product sales : 25% or more Strengthen superconducting cable business Expand a product line for smart grid 	34~35
Growth	Process Innovation	Achieve management objectives through business process innovation	All division	 Reformed organization to functional structure (Feb. 2013) Established the ERP system at worksite in India Carried out 6-sigma projects 	٠	 Stabilize organizational structure Expand the ERP system into overseas worksites Evaluate and review 6-sigma projects 	36
	Global Competitiveness Enhancement	 Strengthen business competitiveness and expand global presence through enhancement of business, profit structure innovation and global competency 	All division	 Completed production facility of power cable in India, U.S. and China Carried out submarine cable project in Qatar Won a contract for an extra high voltage cable project from EDF (Électricité de France) 	O	 Develop localized product portfolio Improve quality throughout global work sites 	37
Customers Links to	Quality & Service	Provide high quality products and services to meet customer expectations and requirements	Quality & Environment Management Dept.	 Improved customer complaints by 68% year on year Held Quality Meeting (12 times a year) & Corporate Quality Review Meeting Provided Quality Innovation Academy (32nd times of class, 840 trainees) Developed pre-assessment technology from customer perspective 	O	 Comply with quality management process and strengthen a quality control system for new products Keep the Quality Meeting & Quality Review Meeting in place Expand pre-assessment technology from customer perspective 	40~41
Customer Value Creation	Product Liability	Strengthen safety and reliability throughout all processes in an entire life cycle to ensure safe use of our products	Quality & Environment Management Dept.	 Carried out product reliability research Evaluation Technology development (10projects) Long-term Reliability Assessment and Research (5 projects) 	•	 Continue to improve Destructive Testing and Long-term Reliability testing by developing correlated variable Keep product labeling Maintain Product Liability Insurance 	41
	Communication with Customers	 Increase customer satisfaction by listening to and reflecting their opinions 	All division	 Published newsletter (12times) Participated in overseas exhibits (5 times) Conducted customer survey 	O	 Keep customer survey Keep participating in overseas exhibits 	40
Suppliers	Fair Transactions and Treatment	• Based on mutual trust, build cooperative network with suppliers through fair transaction	Purchasing Planning Team	 Adopted 4guidelines of the Fair Trade Committee Adopted price-sliding system : increase of the total USD 7.2 million for 11,782 transactions Expanded cash payment (covering monthly payments of up to USD 280 thousand, 100% cash / cash-equivalent payment) Conducted supplier evaluation Supported the suppliers that fail to meet evaluation criteria 	•	 Strengthen the compliance with the Fair Trade Committee guidelines Continuously apply the price-sliding system to transactions Maintain cash payment conditions of USD 280 thousand (monthly) Maintain 100% cash / cash-equivalent payment Keep a company-furnished free material support 	43~44
Links to Shared Growth	Support For Suppliers	Build ecosystem for win-win growth through a substantial support	Purchasing Planning Team	 Extended no-interest, no-collateral loans to suppliers & loans with preferential interest Joint technology development (11 projects) Supported sales increase for suppliers (USD 14.6 million Provided training support for suppliers (8 times, 172 trainees) Expanded financial / technological / educational / managerial support to 2nd-tier suppliers 	•	 Provide technological support through joint R&D, support for new product development, information sharing and technology escrow system Support sales increase for suppliers Develop training programs considering suppliers' needs Provide incentives to 1st-tier suppliers that support 2nd-tier suppliers Provide consulting on credit-rating management 	45
	Communication With Suppliers	 Strengthen trust and attain shared goals based on strategy sharing and better understanding 	Purchasing Planning Team	 Held a regular Shared Growth Council meeting (twice a year) Provided a field trip to overseas subsidiary worksites (once a year) 	0	 Hold the Shared Growth Council meeting by division (twice a year) Continue to provide a field trip to overseas subsidiaries (at least once) 	44
	Sustainable Supply Chain Establishment	• Establish the sustainability groundwork throughout the entire supply network through phased proliferation	Purchasing Planning Team	 Carried out sustainability trainings (Sep. 2012) Conducted sustainability management monitoring (36 suppliers) 	•	 Suggest corrective measures for relatively poor areas identified from the sustainability management monitoring Keep sustainability management monitoring 	78
Local Communities	Contribution To Local Community Development	Contribute to local economic development through investment and job creation	Corporate Support Group	 Supported the renovation of public hospital in China Invested in energy facility in India, U.S. and China 	•	 Implement LS Group's flagship social contribution program (start at 2013) LS Dream Village (tentative name) : Build schools at underdeveloped areas near overseas subsidiaries, and dispatch volunteer groups 	47
Links to Growth through Sharing	Sharing Activities For People In Need	Promote active social contribution through strategic CSR system in line with our business & corporate policy direction	Corporate Support Group	 Donated vehicles to welfare organizations in Anyang and Gunpo Conducted volunteer groups' activities Operated salary rounded down fund 	•	Launch social contribution programs in which employees participate	49
	Educational / Cultural Support		Corporate Support Group	 Provided LS Dream Science Class for children Signed MOUs on Academic-Industrial Cooperation with Gangwon University and UNIST Carried out Cultural Heritage Protection Campaign 	•	Expand and promote LS Dream Science Class	48

* Long-term Reliability Assessment : test for checking whether performance would be degraded, when a cable product is used for a long time

OInsufficient (less than 50% of the goal), € Partially achieved (50~90% of the goal), € Achieved (over 90% of the goal)

O Insufficient (less than 5

Торіс	Material Issue (Aspects)	Mid/Long-Term Approach	Management Group	What we did in 2012	Progress	What we will do next?	Page
Employees	Human Right/Diversity	• Establish global corporate culture that respects human rights and diversity	Corporate Support Group	 Expanded global recruitment : Global member* reached 65%. Attracted more female talent (2.3 → 2.4%) Operated anti-sexual harassment counseling desk Conducted trainings on ethics/human rights, sexual harassment prevention 	٠	 Continue to increase global members Check and monitor differentiation cases Provide a guidebook for global members Keep providing ethics, human rights and sexual harassment prevention trainings 	52~53
	Competency Development	Develop human capital to put corporate management strategies into action and secure global competitiveness	Corporate Support Group	 Shared vision with all employees at technical posts Provided a training for all LS-VINA employees Provided 'Cross-cultural Management and Positive Leadership' training for global members Offered foreign languages-intensive courses 	•	 Provide a training for organization revitalization in overseas subsidiaries Provide an opportunity for the employees working in overseas subsidiaries to work in a HQ Keep providing training programs for global members (understanding for cultures, organizational vision, etc.) Keep offering foreign languages-intensive courses. 	54~55
Links to Happiness of Employees	Welfare / Work-Life Balance	Create a pleasant workplace with creative & innovative corporate culture	Corporate Support Group	 Maintained welfare programs in 6 areas Promoted refreshing leaves Guaranteed maternity leaves (6 employees used in 2012). Conducted LSpartnership Program** 	O	 Keep providing welfare programs in 6 areas Keep implementing LSpartnership Program Enhance family-friendly activities including maternity leaves 	56
	Worksite Safety	Achieve zero accident in all our worksite across the world by enhancing our health & safety system	Corporate Support Group	 Carried out a safety inspection : removed 2,952 risk factors identified Conducted material accident prevention activities for PSM process : Improved 6 explosion-proof facilities (KRW 104.5 million) : Conducted self-audits and on-site diagnosis (identified and improved 145 risks) Occupational accident ratio : 0.23% 	•	 Identify and remove risk factors in the field Improve safety management facility and conduct on-site diagnosis for PSM process Support subsidiaries to get OHSAS18001 certificate Upgrade IT system for health & safety management Attain a goal of zero occupational accident 	57
Green Management	Green Management System	• Expand corporate environment management system into domestic & overseas subsidiaries	Quality & Environment Management Dept.	 Expanded ESH system to overseas workplaces : LSCM, subsidiary in Malaysia acquired ISO14001 certificate Environment accounting : Analyzed recycling costs/profits, and investments Recycled 77% of wastes. Disclosed environment information – government, NGOs, customers 	٠	 Expand ESH management system to overseas workplaces Establish and operate environment accounting index Reduce environment impacts Continue resource recycling program Expand eco-friendly supply chain 	59~60
Links to Green Growth	Climate Change Response	• Establish a carbon management system by building a GHG inventory in all workplaces	Quality & Environment Management Dept.	 Increased a basic unit of energy use in product production**** by 9.3% : 4.29GJ/ton of products in 2011 → 4.69GJ/ton of products in 2012 Established the a IT system for greenhouse gas management Operated partnership program for low-carbon with 10 suppliers : supported energy diagnosis and GHG inventory establishment Participated in CDP 	•	 Continuously improve a basic unit of energy use in production (by 10%) Operate partnership program for low-carbon with more suppliers (20 partners) Plan for energy diagnosis and GHG inventory establishment Strengthen participation in CDP Life-cycle carbon footprint certificate : rubber flooring, carpet 	62~64
E	Green Product Development	 Increase the environmental value of society by providing more green products 	Quality & Environment Management Dept.	 Expanded green product line-up to 63% Increased investment into green product development up to 65% of the entire R&D budget Responded to international regulations on hazardous materials Maintained Green Purchasing Agreement with the Environment Ministry : Reported green purchasing performance 	O	 Increase the green product ratio up to 80% Develop the IT system for hazardous substance management Expand green supply chain and green management education for suppliers Integrate eco-design system Develop our green product labels 	65~67
Risk Management Links to	Risk Management System	• Ensure proactive response to managerial risk factors and management efficiency by establishing corporate risk management system	Corporate Management Group	 Established corporate risk monitoring system Analyzed risk monitoring result Analyzed market, customer and regulatory trend Managed risks of currency exchange rates, raw material prices and interest rates- forward contracts for raw materials, interest rate swap agreement 	٠	 Conduct risk monitoring and analyze results Expand risk management scopes Expand the risk monitoring system to subsidiaries Establish a pre-management manual for new projects and investments 	69
Sound Growth	Fair Competition	Strengthen compliance system so that fair trade & anti-corruption culture can take a root	Corporate Management Group	 Offered a fair trade training (2 sessions) Offered a training on internal transactions (once) Carried out a status check-up on fair trade practices 	•	 Provide a fair trade training to new and experienced employees Conduct self-diagnosis of unfair subcontracts Revise Self-Compliance manual Analyze regulations in other countries and advise subsidiaries 	70
	Ethics Management · Compliance	Build and disseminate an ethical management system linked to corporate vision and values	Internal Audit & Consulting Team	 Diagnosed anti-corruption and non-ethical conducts Evaluated ethics management level Sent newsletters of ethics management 	•	 Continue compliance diagnosis Evaluate the ethics management level Continue to send newsletters of ethics management 	71

* Global member : a foreign employee working for LS Cable & System
 ** LSpartnership Program : a program for improving wok and life balance and ensuring smart work

*** PSM : Product Safety Management

**** Basic Energy Unit per Production : Energy used (GJ) during the manufacturing process to produce one ton of product (Amount of energy used for manufacturing only. Energy used at the head office, training center, offices, and dormitories is not included)

50% of the goal)	Partially achieved	wod (50., 90%	of the goal)	Achieved (over	er 90% of the goal)
Ju of the yoal,		eveu (50~5070	or the goal,	Achieved (0ve	a 5070 of the goal)

2012 Performance

• Topic **01** _ Finance & Creativity / Innovation

- Topic **02**_Customers
- Topic **03**_Suppliers
- Topic **04**_Local Communities
- Topic **05**_Employees
- Topic 06 _ Green Management
- Topic **07**_Risk Management



Topic **1** Finance & Creativity Innovation

In 2012, we were in a difficult business environment as investments in infrastructure were delayed due to global macro economic uncertainty. A forecast for 2013 is not all rosy. Under these circumstances, we went back to basic and strived to find out most effective and efficient method for identifying products that customers want so that customer needs can be satisfied. The basics are : technology development, global competitiveness, and process innovation.

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Economic Value Creation

As the slow economic growth is expected to continue, we focused on improving profitability in preestablished businesses while accelerating the growth of newly nurtured businesses. Although sales dropped our profit jumped up to USD 67.1 million in 2012 from USD 7.9 million in 2011 through these efforts. As we did not reach our target, however, we will try our best to accomplish our business goal through internal growth with improved profitability and global competitiveness in 2013.

Created Value

In 2012, sales were reduced to USD 669.3 million from the previous year, recording USD 3,810.5 million. In the cable industry, copper accounts for the highest portion in business and the price dropped substantially in 2012, affecting sales. From a record high of USD 10,190 per ton (annual average of USD 8,821) in 2011, LME copper fell to the annual average of USD 7,507 per ton in 2012, down by USD 871 per ton. In addition, sales were reduced by roughly USD 460.8 million, since the amount of copper rods sold decreased by 41,063 tons compared to 2012. Despite decrease in sales, profitability improved from the previous year, with increase of USD 59.2 million in operating income. Such performance was attribute to the followings : extra high voltage products was acknowledged in the superiority of its technology and quality, and such positive recognition led to a huge order for large-scale projects in Europe and the Middle East. Thanks to expanded investment into domestic LTE and new market expansion in Japan, we achieved meaningful performance in the telecommunication cable business. In addition, non-operating incomes were improved through effective management of exchange rate/ derivatives and successful asset liquidation.



What is the LME? The London Metal Exchange is one of the world's largest center for non-ferrous metal future trading. The price decided in the LME is called the LME price, which is used as the global benchmark for the world's non-ferrous metal transactions.

Growth

In 2012, our sales dropped by 15% from the previous year. However, we succeeded in achieving the sales of about USD 4 billion and top-tier position in the domestic cable market for two consecutive years through a flat our effort for continuous technology development and customer satisfaction. Furthermore, overseas sales grew by 4.7% year-on-year, despite the continuous global economic recession.

At the end of 2012, total assets were reduced to USD 3,312.9 million, by USD 140 million from the previous year.



Profitability

propelled by improved operating profits and reduced nonrecurring losses, our profitability improved. First, we made profit in key business including the extra high voltage, optical, and coaxial cables and in newly developed business by winning a series of meaningful contracts of large scale submarine cables in the Europe, the Middle East, and Central America. In addition, we prevented non-recurring losses from non-ferrous metals and foreign currency derivatives through enhanced risk management. In the future, we will make efforts for improving profitability continuously by carrying out cost saving projects and providing differentiated products through accumulated technoloay.

Stability

As total assets were reduced, the current ratio dropped, as of the end of 2012. However, the debt to equity ratio was improved due to improved business performance in 2012 and early redemption of bonds.

Even in 2013, we will continue to create a robust financial structure by creating operating incomes through active sales and by promoting cost-saving activities throughout the company.

Activeness

As sales were dwindled, the asset turnover ratio and the inventory turnover ratio slightly dropped. We have a plan to improve asset efficiency by expanding operating activities and by eliminating inefficiencies in processes and assets.

Future Plan to Improve Financial Performance

In 2013, we strive to provide stakeholders with much greater value by achieving business objectives through responsible management and connecting our accumulated competency with performance. In the energy business, we will improve profitability by providing a variety of customized and high-quality products throughout the world through stringent quality control. In special, we will strengthen the activities in the global market based on technology, our core competency. For better performance in the telecommunications business, we plan to actively publicize our high-quality products that have been intensively developed for a while in preparation for overseas investments expansion into LTE and expand an overseas branding business for data cables. To ensure sustainable growth goals over the long term, in addition, we will develop continue nurturing future-oriented business including superconducting cables and develop the products having extremely low temperature and high heat resistance, and high anti-abrasion, etc. that exceed the conditions set by customers. Overseas subsidiaries will enhance global competitiveness through high guality, competitive prices, and timely delivery to satisfy customers

by actively making use of our global network.

Above all, we will achieve the goal promised to stakeholders by completing the tasks based on execution.



New Technology & Product Development

It is expected that convergence of technology by which distinction among industries disappear would be accelerated. In the cable industry, the demands for the smart, green, durable and safe products are projected to increase. In line with such flow of technology development, we will strengthen core competitiveness of cable products through the continuous investment in R&D, so to secure the future driving engine.

Our Approach

Guided by the R&D vision of being a 'Creative Technology Innovation Partner', which means that we have to provide a higher level of service to customers and help bring happiness and prosperity to society and future generations, we have secured future growth engines, core technology capability of cables, and customer-oriented R&D competencies.

R&D System

We have established an R&D organization system reflecting the R&D goal and characteristics of local products. Our Base Technology Research Center focuses on the development of core technology and new technology for cable systems. Organized in the production group, the Product Development Center and Manufacturing Technology Development Center closely supports for manufacturing customized high quality products. The R&D centers in China, the U.S., and France focus on developing local product and improving the product competitiveness manufactured at each local work site. We expanded and transferred our R&D center in 2012 : this new R&D center is designed to increased the R&D efficiency with various research facilities, analytic equipment, and a pre-production line and serves the place for creative research by providing convenient facilities for researchers such as a fitness center and nap rooms.



New Business for Future

We are developing new technology that leads the future society including green energy, superconducting cable and smart grid.

Superconducting Transmission Network III Starting to develop superconducting transmission line for next generation in 2000, we succeeded in developing 22.9 kV 500MVA superconducting cable for distribution, the first of its kind in the world. It has been under pilot operation at the Icheon substation, Gyeonggi Province.

We have succeeded in developing a 154kV superconducting cable terminal for transmission and are currently taking on the national research projects on application of superconducting technology to actual transmission line with Korea Electric Power Corporation (KEPCO). We are conducting a research on manufacturing superconducting cable systems for transmission, performance evaluation of the full

scale applied products, development of operation and maintenance technology, and development of refrigerators and cooling systems for superconducting systems. Superconducting Cable for transmission and Superconducting Fault Current Limiter is almost close to commercialization, for which studies for application are in progress, in a few countries



Superconducting Cable

Air Blown Optical fiber Composite Power Cable for Smart Grid

We developed an Optical fiber Composite Power Cable that combines power and communication cable necessary for smart grid implementation. As the most impressive characteristic, this cable is designed based on air blown installation which is new technique for installing fiber optic cables in which a tube of 3~5 mm in diameter is installed inside and the fiber optics are then pushed inside by high pressure air. Improved from the traditional fiber optic power cable which is able to contain up to 16 optical fibers, our newly developed cable has a capacity of 144 optical fibers so to be easily expanded and satisfy customers who want to implement various power grids and telecommunication networks. In addition, damage risks are low

because a plastic tube and a dual structure of the cable jacket protect the cable. Operating and investing costs may be reduced because it is possible to replace the internal optical fiber only by using air pressure. An easy monitoring is another advantage as the temperature of the power cable can be measured to detect abnormal states in real-time by using optical fiber.



Air Blown Optical fiber **Composite Power Cable**

Platform Technology Improvement

Through a material development and the material analysis technology which are a foundation of the product guality, we cultivate a platform technology which fundamentally improve the guality and reliability of cables.





Non-toxic flame-retardant material combining nanoparticles with cable materials

TÜV. KOLAS : a certified harmful material analysis laboratories

Products Competitiveness to Fulfill Customer Needs

We are developing differentiated premium products with high resistance to extremely low temperature, heat and abrasion, in terms of functions, and with a high level of customer requirement fulfillment in response to increasing demands on customized cables, in terms of customer satisfaction.

950°C Fireproof Cables ||| We succeed in developing a world-class fire proof cable that can withstand heat up to 950°C. This type of product have fire resistance that is 200°C higher than 750°C which is the limit for traditional fire proof cable, by improving the nature of mica used for fire-proofing tapes and adding fiber glass. They even work correctly in environments including external shocks or water that would be sprayed for fire fighting.

They fully satisfy all the standards of the International Engineering

Consortium (IEC), the British Standard (BS), and Normes Francaises (NF). They are widely used throughout a variety of industries for emergency power supply, operation of core facilities and fire and disaster prevention systems.



240°C Heat Resistant Magnet Wires ||| We developed a high thermal-resistant magnet wire withstanding temperatures up to 240°C which can be applied to the traction motor for an engine of a high-speed railway car. This cable can be applied to motors

for electric devices and transportation such as spacecraft, aircraft, next-generation high-speed railway cars, magnetic levitation trains and electric trains, an operation of which generates high heat.

Their reliability was proven by successfully completing two years of the field tests.

We also have a plan to complete a development of thermal resistance cable for households and industrial use







UL –a product safety testing and certification organization



Alloy material of aluminum, copper and etc.





Specialized Reel Cables for Crane ||| We successfully developed Korea's first specialized reel cables used for heavy equipment such as heavy-duty crane to move and load. The cables are used to supply power and monitor operation for cranes used at power plants, harbors, etc.. Being wound on a large reel, they require a high tensile strength, flexibility and durability.

We developed a Medium Voltage (MV) optical power composite cable for power supply and equipment monitoring and Low Voltage (LV) power cables mainly used in small cranes and portable conveyor belts. We conducted various and strict quality tests in consideration of the using environment at the site. They are currently used in Dangjin Thermal Power Plant.



Air Blown Optical fiber Composite Power Cable



LV Power Cables

Specialty Cables for the Mining Industry ||| By strengthening wet resistance and flexibility, Our newly developed specialty cable for the mining industry is suitable for using in an underground environment.

For customers who want to modernize the mining industry, we considered local specifications and different environmental condition. Also, these cables are designed ecofriendly, using polyurethane with excellent wearresistance and tension as a sheath material.

Currently, 20 kinds of these products have been certified by the Chinese Coal Mining Standard (MT).



Process Innovation

For some, process innovation is considered difficult due to the wide application scope, and seemingly unclear performance. To us, the goal of process innovation, however, is well defined : 'Providing greater value for customers in a better way'. For this end, we are improving our system and reforming our organizational structure suited for the changing environment. We even improve our operating level that helps system and organization work better by strengthening employee's competency and reinforcing mutual trusts and responsibility to keep promise.

Our Approach

For long and sustainable growth, we pursue 'change' which aims for realizing customer values more rapidly, more accurately, and more effectively. To accelerate such changes, we will reinforce internal efficiency and proceed with process innovation to improve the current system, organizational structure, the internal competency, and the responsible management.



Our Activities



Since establishing the ERP system in 2005, we have carried out continuous upgrade and expansion into overseas sites for improving efficiency of internal management. In 2012, we developed the system to improve an analysis of important data to reduce efforts and time required to analyze information. This system helps us find frequently used data more easily and reduce time to analyze data. Aimed at establishing an unified information management system throughout the entire site, we are expanding the ERP system to overseas subsidiaries. In 2012, we succeeded in the roll-out of the ERP system in business site in India.

Way of Working

We encourage 6-sigma projects and on-site innovation activities. 6-sigma is a set of tools that identify the cause of a problem and remove defects or inefficient elements of the work process, using including statistical methods. We have been carrying out 6-sigma projects in various fields including product development, quality improvement, sales and, etc. since 2007. Through the 6-Sigma projects, we have developed problem-solving skills and encouraged such improved skills to be used in entire organization. Since 1970, We have conducted activities for solving and improving on-site problems through 3-R and 5-S, My Machine activities and group activities of 'Quality Control project at production facility'. The on-site group activities started in 1970, for the first time in Korea.

Organizational Structure

Facing an business environment of slow economic growth and uncertainty, we reformed into a functional organization to strengthen the efficiency of operation through an expertise based on function. A functional organization is consist of the departments to perform specific functions, through which we can enhance expertise by concentrating our capability on our functional tasks. It also enables us to rapidly respond to customers, as well as develop and manufacture products responding to fast changing customer needs and technical trends.

Responsible Management Culture

It is also target of innovation to cultivate an attitude of voluntarily pursuing and practicing improvement. To reinforce a culture under which each employee seeks for improvements and carries out their responsibility to the fullest while participating in corporate innovative activities, we have formed an organizational consensus on innovation and spread it throughout the company.

Improvement of Office Meeting Culture

We're trying to make our office meeting more optimal tools for reporting, suggesting and communicating by reducing the number of meetings, distributing meeting materials in advance and getting more focus on key issues. The improved meeting culture helps our employees concentrate on more actions.

Global Competitiveness Reinforcement

To satisfy the demands of various customers around the world above their expectations, we pursue global competitiveness. To strengthen fundamental competitiveness that meets our standards, we are deliberately focusing our efforts on building a broad technology and guality, while developing tailored to each and every customer's needs and local circumstances. We also plan to achieve a higher degree of global competitiveness through a global mindset that respects diversity and the fulfillment of social responsibilities.

Our Approach

In new business environment where globalization becomes an opportunity for growth, we are prepared to be gualified as a global company. To be 'global', we think deeply what kind of values a global company gives stakeholders and to maximize such values how we should carry out global management. The global competitiveness we want to achieve is that our global network consists of domestic / overseas subsidiary and suppliers rapidly responds to changes in various markets worldwide so to reinforce customer satisfaction and to mitigate the impact of local economic condition on business. Equipped with this global competence, we're able to realize profits and mutual value creation. We plan to enhance our global competitiveness through fundamental competence based on localization and product competitiveness, higher level of services and business management, trustful cooperation with stakeholders and sustainability management based on respect for diverse culture and environments.

Our Activities

Localization

Local fit product As cables are used in infrastructure, high levels understanding of local geology, industry, technology and culture are required. We are developing products precisely corresponding to particular regional traits and providing a products manufactured near close to customers through a global manufacturing network in 25 countries. In 2012, we further promoted energy business localization by successfully completed our new energy cable manufacturing facilities in the U.S., India and China.

Custom-fit product We are providing a customized products that fulfill customer requirements and demands from a design process. For better performance, we strive to understand the product specifications that customer wants more precisely and provide a follow-up service and a prompt response to any questions from customer through a global network and a customer-oriented sales organization.

Global R&D We are implementing global R&D strategies through R&D centers in Korea, China, the U.S., and France. Centering on the local R&D centers specialized by each strategic base of the global sites, we will intensify our effort to develop local products through partnerships with customers and improve the overall technology level by applying and integrating the technology that our subsidiaries around the globe possess individually.

Synergy Creation

One LS Cable & System Domestic and overseas subsidiaries and suppliers are sharing a corporate strategy and organizational cultures and an entire group of R&D, sales, purchases, and quality control are building a global cooperation system.

Sustainable Growth

Harmonious growth We intend to grow together based on respects for environment, culture, employees, and local communities. It implies that we should fully understand the social structure and environment of the countries where we are operating.

Service Competitiveness

Service improvement We established a processes for managing customer complaints and responding to customer requests through a real-time cooperation with global networks. We will continuously improve the service of global work sites by expanding the Customer-Oriented Process (COP) already established at domestic work sites and by sharing a best customer service case.

Product Competitiveness

Expansion of product portfolio A cable is a multi-type and multispecification products with more than 100,000 varieties. Our facilities and technology that is capable of producing various products help flexibly respond to customer needs and reduce impacts of external business environment. We have diversified our product portfolio and secured facilities, personnel, and research capabilities to perform various large scale projects.

Quality improvement Not only basically equipped with a superior quality in insulation and voltage, smaller, lighter and more efficient products are getting our focus in our development projects, such as high capacity Overhead Transmission Cable, Light-weight Optical Fiber Overhead Cable and MCX harness.

For cables of different sizes but of the same performance, the smaller and lighter one offers greater convenience and costs less in maintenance.

Efficient Business Management

Implementation of strategy for strengthening competitiveness In the first phase of our plan to strengthen our overseas business competitiveness, we have been focusing on stabilizing our business abroad through a measure of rationalizing our business structure that is centered around areas of core competencies. During the 2nd phase, we will focus on enhancing our corporate values based on measures aimed at enhancing our business structure, improving profit, and strengthening our organizational competencies.

Topic

Customers

Customers buy drills because they want to make a hole, not drills itself. Customers want any product that may fulfill their needs of making a hole more safely and more conveniently, regardless of whether the product is actually a drill. It is a 'Value' that we want to provide customers, not products. To achieve this, we make every effort to identify what customers want and provide a product meeting customer needs and requirements.

Quality and Product Liabilities

We actively communicate with customers and make every effort to correspond to customer requirements throughout the entire product supply process-e.g., resource securing, product development, purchasing and manufacturing, we have also established the ISO-based quality management system. Since cables play a pivotal role in delivering energy and information with a long service life, its guality and durability are critically important. To ensure quality throughout its life span, we enhance and manage quality via long-term reliability test and safety test.

Our Approach

Aimed at providing the best products and services for current and future customers, we are carrying out activities to explore, develop, and provide customer value. To fulfill customer expectations and requirements regarding product quality and liability, which are customers greatest concerns, we identify and manage CTQ through a company-wide Quality Management System. CTQ stands for Critical To Quality, which is character of having the greatest quality importance to customers. We will achieve CTQ and a high degree of customer satisfaction by ensuring that our product, service, manufacturing process are in line with gualifications required by customers.

Process for Creating Customer Value

© Exploring Customer Value • Identifying customers' requirements through communication with customers or market survey Selecting CTQ by analyzing customer requirements



Management Organization

A Business Group consists of Functional Organizations that are responsible for high quality production through VOC management, R&D, purchase, manufacturing, and guality monitoring and a Support Group supports for reflecting customer requirements on our products and services accurately through communication, facility investment and human resource management. We also have the department of Quality & Environment Management with roles and responsibilities for corporate quality management that creates value to our customers.



Activities for Exploring Customer Value

Communication with Customers ||| As a company to professionally offer energy and telecommunication cables, an industrial goods, to a limited number of business customer, we provide customized products reflecting customer needs and the regional characteristics where they will be installed. It is important to identify not only technical guality but also what customers want so to reflect their requirements throughout the entire manufacturing process. Recognizing the importance of listening to customers, we collect information on regional characteristics, technology, product trends and customer preference from various customers and share the collected information through the intranet. We also make strategic use of the customer's opinions in product development. Furthermore, we listen to ideas and suggestion for improving products as well as complaints through VOC, the voice of external customer and VOB, the voice of internal customer such as sales team and marketing team, etc., Our Customer Center and a Help Desk provides a solution to the raised customer issues. The Customer Center is available at our website, and the Help Desk is at our web-based customer system. If a customer has any question or difficulty related to transactions with us, we immediately notify the responsible division or team to take rapid corrective actions. To identify customers needs, all employees, not just those meeting customers directly, need to share customer opinions and try to find out improvement measures. To listen to and address a variety of customer opinions from domestic and abroad, we developed a Customer Relationship Management System, a CRM system, through which all employees are deliberately focusing our efforts on create customer values.

Customer-oriented Sales Program ||| Since our products are specialized for individual customer, require technical expertise, and are used over a long period of time, a salesperson need to have expertise, customer oriented attitude, flexibility, communication skill. In addition, our salespersons should demonstrate such abilities from the customers' point of view. Aimed at improving customer-oriented mindsets and knowledge of products, we offered a customer-centered sales training program, in July 2012. This program was consist of 2 modules : in the basic course, our salespersons take a training for enhancing core competency needed to create customer value throughout the entire product life cycle from customer needs identification to the end of product use. The advanced course, Sales Innovation, was designed to strengthen capabilities to promote customers' values, such as customeroriented way of thinking and effective customers' meetings. The training program helped trainees easily understand what customer-centered sales meant and how to practice it by focusing on skills and knowledge required for understanding customers' needs. Especially, it is useful to understand customer to produce videos clips about meeting situation with customers and to do role playing. In April 2012, we also offered the "I am a salesperson" training course for our energy product salespersons. With a manner of presentation contest, we encourage salespersons to prepare for in advance and actively participate in the training program. This program was evaluated to provide useful tool to explain our technology and products to customers easily and persuasively.

Activities for Developing Customer Value

Corporate Quality Management System ||| We set up quality manual and procedure based on ISO9001, the international standard on quality management systems. By making sure that Quality Management Systems are in place in all of our process—e.g., product development, design, purchase, manufacturing, and inspection, we strive to provide with higher quality than customer requirements . We define quality as the degree of fulfilling customer demands and expectations beyond the basic traits offering with functions and performance suited for the purpose of use. Accordingly, aimed at obtaining customer trust and satisfaction by providing top products and services that meet customer needs and requirement, our Quality Management is implemented with 4 steps, the planning, control, assurance, and improvement. To improve the corporate quality level through Quality Management, we clearly define responsibilities and roles and conduct corrective actions by regularly reviewing the efficiency of the Quality Management System and the progress against the goals.



Quality Innovation Academy ||| Aimed at raising employee's awareness of guality, we had training courses, Quality Innovation Academy in 2012, for 840 employees from departments of manufacturing / sales / development. Quality Innovation Academy was planned to promote customer-oriented thinking and take responsibilities for quality. To achieve its purpose, the program was set to allow trainees to easily understand how to improve quality and share how to prevent quality-related problems due to negligence through case studies.

In 2013, we will train in-house quality specialists by expanding the program from general to more advanced modes.

Interview

We will always listen to customer's opinions to provide the best quality products that customers want. We also make every efforts to guarantee products and services met with customer demands.

- Kang-Young LEE General Manager, Quality & Environment Process Team

Improvement to meet Customer Requirement ||| We identify the

CCRCritical Customer Requirements from the customer voice by translating it into customer needs through a breaks down or integration of the collected opinions. For CTQ^{Critical To Quality} that should be addressed with top priority to maximize customer values, we are promoting activities for improvement using 6-sigma tool. The 100 6-sigma projects conducted in 2012 have led to significant improvements in terms of product development and quality control. Going forward, we will continue to promote implementation of the project that failed to attain established goals through a cause factor analysis and continuously carry out CTQ management activities for already completed challenges.

CTQ Management Activities

Identifying Challenge for Customer Satisfaction Identifying CCR Deriving CTQ Listening to Customer Voice • Analvze Analyze correlation • VOC / VOB customer opinion with business activities \rightarrow Identify Customer survey measurable Identify customer requirements challenges for complaints improvement complaints





Micro-optical Cable without Requiring Rolls of Remaining Cable

We were asked to remove the rolls of the remaining cables which were rolled-up and attached to the junction box after installation. The removal of the rolled-up remaining cables helped to improve urban landscape and reduce loads to electric polls but might cause deterioration of optical fiber and requires thinner structures. Also, it was out of our patent scope. While continuing to conduct tests for finding solutions, we tried to completely change viewpoint. That was the idea of making a 1+5 structure thinner than a traditional 1+2 structure.

We thus succeeded in developing a micro-optical cable that can be installed without the need of rolling up the remaining cables, while ensuring same performance.

Customer Value Creating Activities

Product Reliability ||| We strive to improve product safety and reliability so that customers can use our products safely throughout the entire product lifecycle. Especially, by establishing the Product Safety Management System (PSMS), we meet legal criteria at home and abroad as well as social expectations. Based on PSMS, we carry out research for enhancing customer safety in the use of our products. First, we conduct studies for assessing the Long-term Reliability of products. Our new research approach for Long-term Reliability is complementary to the Destructive Testing* or a Long-term Reliability assessment** through a study for expecting the remaining service life of new products such as superconducting cable and GIL cable and the technology development that may predict the occurrence of any troubles in advance. We also verify the performance of newly developed products through Technological Assessment that evaluates the performance of designed cables before piloting. The reliable data provided to customers help rational decision making on purchase and management convenience of in using our product. Since our products are installed outside, they are exposed to harsh conditions of the external environment. In response, we intensify our efforts to improve technology and preemptive solutions by causal factors by analyzing factors through thermal cracking tests or insulation monitoring, etc...

- * Destructive Testing A testing method carried out to determine mechanical properties by broking down products
- ** Long-term Reliability Assessment A test for checking whether performance would be degraded when a cable product is used for a long time

Customer Complaint Management ||| We strive for continuous improvement for zero-defects and promptly address customer complaints in accordance with corporate management system. To prevent recurrence of a similar problem, there are activities to improve. by analyzing causes, establishing corrective action plans, and monitoring progress. We share material quality issues at the Quality Meetings and establish future plans for improvement. At an Annual Quality Review Meeting where an entire organization shares customer on complaints quality, we identify the fundamental roots of quality failures and share how to improve them in the future.





Topic

03 Suppliers

To manufacture a cable, a variety of raw materials, products, and services must be integrated including coopers used for conductors, compounds for insulation and outer jacket materials, drums for packaging, logistics, and repair. Used in delivering energy and information, a cable requires the best materials and services to ensure quality and safety. In this aspect, our suppliers are experts in charge of one of the parts in our manufacturing process and partners who cooperate with us to make better products.



Fair Transaction and Treatment

We have implemented a fair trade system in all purchasing process, from selection, registration, payment, and evaluation. To promote fair trade, we comply with the Korea Fair Trade Commission's guidelines and operate the Shared Growth Council. Especially, considering that our suppliers manage high-priced materials such as non-ferrous metals and expose to high financial risks due to fluctuations of international raw material prices, we support for their business stabilization through a price adjustment and cash payments.

Our Approach

Under the Korea Fair Trade Commission's guidelines, we have established a system to improve fairness in contracting, sub-contracting, and the selection and transaction. We secure transparency in procurement of materials and services through an electronic purchase system (the e-Procurement, http://eproc.lscable.com) in terms of system, and ensure consistency of procurement practice through a standard and guideline, in terms of process. As for the payment, the greatest concern of suppliers, we offer a program for improving terms of payment in favor of suppliers by enabling payment adjustment and expanding cash payments.

Organization for Promoting Fair Trade

The Purchase Planning Team takes a leading role to promote fair trade and shared growth activities at the corporate level. The Purchase Planning Team is in charge of implementing fair trade with suppliers and setting up a strategy and annual plans for shared growth. The purchasing teams at each local work site are responsible for procurement including supplier selection, bidding and estimation. The Legal Affair Team checks for any unfairness in contracts and transactions and the Finance Team is responsible for financial supports to suppliers. A quality control and technological cooperation with suppliers are managed by the Technology Planning Team and Intellectual Property Team.

Activities for Fair Transactions

Selection/Registration III Based on the e-Procurement system, we manage application, qualification evaluation and final selection, improving accessibility and transparency. In addition, through document reviews and on-site surveys, we analyze whether suppliers fulfill the necessary requirements for production capacity and quality and comprehensively consider worksite safety, environment management, compliance, human resource development and ethics, as well.

- Competitive Bidding Principle Unless impossible to offer open tendering due to special cases such as technological issues or customer requests, we have a procurement principle of competitive bidding process that is open to all qualified bidders.
 Direct Proposal for Transaction – Any suppliers who want transactions
- with us are able to suggest transactions through the e-Procurement system, e-mail, or phone.

Pricing III In consideration of quality, quantity, specification, delivery, raw material price, and profits based on general market trends, we are suppose to negotiate price at reasonable price range. Otherwise any acceptable reasons, unwarranted price cut is not allowed. Additionally, we make it possible for suppliers to file for adjustment of payment at any time and gladly accept adjustment requests, to be thought reasonable.



open s or itive ions nent **Contracting** III Before going into works, a contract with the signatures of the trading parties must be prepared, based on the standard terms and conditions in regard to contract with suppliers. The transaction must be verified as a document by issuing and keeping in in writing.

Inspection ||| After delivery and services are completed, a confirmation letter is issued and an inspection is performed in accordance with the pre-agreed standards and procedures. We establish the inspection rules and prescribe the inspector's duty and due diligence. Also, our policy prohibits from returning supplied goods or services without valid reasons.

Evaluation III To enhance the competitiveness of suppliers, we evaluate quality, price, delivery, and services in regular basis. As a method to enhance objectivity and fairness of the evaluation, we apply different weights in consideration of business and materials. We also offer an additional point for the performance of mutual cooperation with second-tier suppliers to expand sustainability into entire supply chain. For the areas that fail to meet our requirements in the evaluation results, we support for improvements through a countermeasure and consulting service.

Shared Growth Council

Through the 'LS Cable & System Shared Growth Council', in which our suppliers participate, we provide regular workshops and training to suppliers, which boost mutual communications.

Our CPO^{Chief of Purchase Officer} and Purchase Team leaders visited suppliers to listen to their opinions or requests and check any unfairness in transactions.

Price - sliding System

In order to minimize the burden on suppliers due to the fluctuation of international raw material price, we put a price-sliding system based on raw material price in place, by which price changes of raw materials are immediately reflected in payment for purchase. We make a purchase of copper, heavily used and relatively expensive material used to manufacture cable products, based on the actual international trading prices. For petrochemical products and oil, we also make a price adjustment in consideration of the changes of the international price and exchange rates.

In 2012, we provided an increased purchase price by USD 7.2 million in total, through a price adjustment mechanism for 693 suppliers.



Price Increase due to by International Prices Increase

	1Q	2Q	3Q	4Q	Total
No. of Suppliers	202	169	146	176	693
No. of Materials	4,720	1,765	2,381	2,916	11,782
Increased amount (in USD thousand)	2,268	1,188	2,045	1,703	7,203

Cash Payments

To minimize the financial burdens of suppliers, we largely expanded cash payment up to 47% of all purchases and up to USD 280,000 from 180,000 in terms of monthly amount of payment. Even in case of payments worth more than USD 280,000, we have paid cash equivalents (cash or trade receivable secured loan without recourse) for all transactions, which helps improve financial stabilization of suppliers (100% cash equivalent payment). In addition, we have made payments earlier on the 15th day of the following month from the 25th day.

Support for Raw Materials

Since suppliers are highly susceptible to the fluctuation of raw material prices and market conditions, we also provide suppliers with companyfurnished copper, a key material used for manufacturing cable, to alleviate their burden caused by buying raw materials. With companyfurnished material worth USD 104.6 million in 2012, we contributed to the stable management of suppliers. We will promote this system by identifying and supporting suppliers who are experiencing difficulties of getting and supplying raw materials.



Company-furnished Materials



Amount of Money for Supporting Company-furnished Material

Grievance Handling

We operate the 'Unfair Practices Reporting Center' where suppliers can report on unfair or improvement-required transaction practices such as oral ordering, non-payment, non-issuing of contract, etc. in transactions with us. We also receive and address suggestions, criticisms, and grievances through the Cyber Reporting menu on Ethical Management website. Received information are required to be keep confidential and go through inspection and follow-up measures.

Unfair Practices Reporting Center winwin@lscns.com Cyber Reporting Channel_ https://ethics.lscns.co.kr

Interview

•It is a strict quality management, a driving force that we have maintained good relationship and grown continuously as LS Cable & System's partner for over 30 years. To meet the LS Cable & System's quality standards, we firmly established quality control system, which has helped us maintain the technological edge on a par with global advanced companies. In the future, we hope LS Cable & System will continue to promote exchanges with a variety of suppliers on business, and cooperation strategy, etc..,

- Jun-Kang LEE General Manager, JC Com Co., Ltd.

Supplier Competitiveness Improvement Program

As the business environment moves competition from among individual companies to among networks, it becomes essential to build a cooperative network with competitive suppliers. Upon the beliefs that supplier's growth leads our competitiveness, we are providing a variety of supporting programs in the field of finance, technology development and management to help our suppliers to grow as global hidden champion. relatively small but highly successful companies.

Our Approach

Since our suppliers are clearly divided into two distinct groups : large businesses supplying nonferrous metals and petrochemical products. and Small to Medium Enterprises (SME) supplying other materials, we provide differentiated supporting programs in consideration of the scale and current status of suppliers. As the business environment become hostile due to the slow economic growth in 2012, we expanded financial supports for the business stabilization of small suppliers and managerial supports to boost supplier's sales. In addition, we help suppliers to secure technology and quality competitiveness through our joint technology development projects. Since it is expected that the economic recession will last in 2013, we will plan to focus on financial supports and credit risk management supports in priory, for our suppliers in order to ensure business stability, regardless of changes in internal and external business environments.

Supporting Activities

Financial Support ||| We are providing a zero-interest, no-collateral direct credit to support supplier's investment projects, and a mutual cooperation fund together with financial institutions so that suppliers can access credit at low interest rates. In 2012, We increased zerointerest credit by USD 1.2 million, from the previous year and create a USD 37.3 million-worth mutual cooperation fund, with 54% increase year on year. We also maintain a 100% cash equivalent payment ratio.

Technical Support III To support for suppliers to grow further through technology development, we exchange technology information and carry out joint technology development projects. In 2012, we conducted 11 joint research projects and granted a technology license to one supplier. We completed four joint patent applications and supported the technology escrow system for two companies to protect the technologies of suppliers, as well.

Training Support III To enhance the competitiveness of suppliers, we have provided specialized training programs on patents, product guality, innovation, and etc.. In 2012, we delivered 8 training sessions and seminars for 172 employees of 122 suppliers. The training programs that we plan for 2013 will cover contents relevant to the real management environment and characteristics in order to ensure a substantial help.

Managerial Support ||| Through business consulting, global marketing supports, and sustainability management expansion, we try to contribute to improve suppliers' business management. In 2012, we helped suppliers to increase their sales by USD 14.6 million by supporting transaction with our overseas subsidiaries in China, India, and Vietnam. Also, we provided a support for environmentally harmful substance management to 24 suppliers.

	In L	JSD thousand
2010	2011	2012
560.2	1,633.8	2,800.9
14,004.3	24,274.1	37,344.8
16%	40%	47%
100%	100%	100%
	560.2 14,004.3 16%	2010 2011 560.2 1,633.8 14,004.3 24,274.1 16% 40%

			Unit : case
	2010	2011	2012
Joint Technology Development Project	11	11	11
Joint Patent Application	1	3	4
Technology Licensing	2	2	1
Technology Escrow	-	-	2

	2010	2011	2012
Training Session (times)	4	8	8
Participants (person)	106	139	172
Expenses (in USD thousand)	8.5	2.1	3.6

Unit : the number of companies

	2010	2011	2012
Overseas study	6	-	18
Sustainability management support	-	10	9
Environment-harmful management support	-	9	24

ocal Communities

To create greater value with the local community beyond responsibility as a corporate citizen, we make a commitment to participating in resolving social problems based on our group's management philosophy of LSpartnership. Even in 2012, our 'Beautiful Companion' relations with local community are keep going. Especially, we are actively carrying out strategic social contribution activities to give 'Sustainable Support' based on our corporate expertise, which intend to contribute to the local community's long term growth and development, instead of one-time support.

Social Contribution System

To be a reliable partner to grow with local communities, we strive to make a social contribution to give substantial helps to them. Making a full use of our expertise on cabling and on business fields of delivering energy and information, we support the development of local communities through an infrastructure establishment and knowledge sharing and carry out philanthropic activities to realize a society full of love and cares without any neglected areas.

Our Approach

The HR & General Affairs Team at each local work site is responsible for communicating with local communities near at hand. Fully considering opinions collected, the Social Contribution Working Committees, a dedicated organization for promoting cooperations with local communities and establishing the social contribution direction in consideration of regional characteristics. We are currently engaging in social contribution focused on 'sharing' and 'supporting development' activities and promoting effectiveness of such activities through a communication with public institutions such as local government and a participation in their welfare programs. We think that our social contribution needs to go one step further for improvement towards corporate-wide system and strategy. To systematically fulfill our social responsibility and return the love that the local community have given us, we have established a strategic social contribution system with LS Group.

Reliable Partner Growing Together with Local Community

Devel	opment Supporting Activiti	es
 Contribution to development of local 	Educational / Cultural support	•
 community Contribution to local economic development through energy infrastructure Job creation 	 Cooperation with educational institutions LS Dream Science Class Baduk championship Cultural heritage protection activities 	

Energy Cable Manufacturing Facility in

U.S. III Tarbora in North Carolina, U.S. is a small town with population of 11,000, but has a well established infrastructure system and manufacturing bases. In 2012, we established a power cable plant at Tarbora, creating at least 116 jobs only from the new facility, according to the analysis. A North Carolina representative Joe Tolson expressed his expectations for local economy development, stating that the new facility would contribute to create jobs and improve local education level in a long term.

Energy Cable Manufacturing Facility

in India ||| While India demands lots of energy, 3.7% of the world's energy consumption due to rapid urbanization and industrialization, its electric energy is in short supply, due to worn out equipments. We intend to support power infrastructure establishment by operating the power cable plant at Bawal, Haryana in India.

Environment Protection

- Anyang Stream cleanups
- Geumo Mountain cleanups
- Wildlife protection program

Sharing Activities

- Philanthropic Supports
- Volunteering activities • Salary donation Supports for welfare
- organizations Blood donation relay

Global Contribution Activities

- Social contribution in China
- Social contribution in Vietnam

Environment Conservation III Since 1995. We have carried out a variety of activities to protect local environment, such as 'Caring One Stream by One Company', 'Saving Anyang Stream', and 'Kumo Cleanup Activities'. The Gumi / Indong sites, which are industrial complexes packed with industrial facilities are highly concerned about environmental issues. Hence, we make an every effort to thoroughly prevent any leakage of pollutants and clean up streams around sites quarterly.

Wild life Protection Program ||| With the Gumi local government, Daegu Environment Office, and environmental organizations, we conduct activities to protect migratory birds at the Haepyeong wetland in Gumi every year. The Haepyeong wetland is one of Korea's largest habitats of migratory birds, where about 35 different species of migratory birds including endangered crane species pass the winter or rest. we scattered foods for birds and treated wounded birds, which were then sent back into the wild, in 2012.

Modernization of Hospital in China LSHQ, a subsidiary in China, supports renovation of the public hospital (a stateoperated hospital in rural area) in Yichang, Hubei Province, with the Red Cross in China. With completion of this project, the old hospital was reborn as a modern one covering 2,537 m² and with 20 new beds. The medical services offered have also been diversified to include internal medicine, surgery, pediatrics, oriental medicine and physical therapy so the residents of Yichang will be able to receive upgraded medical services.

Sharing Activities in Vietnam ||| Since 1999, LS-VINA, one of the subsidiaries in Vietnam has supported the socially vulnerable groups during the holiday season. In 2012, it supported a total of USD 16.000 to support families of Agent Orange victims, war veterans, orphanages and the blind, and to donate PCs to schools in rural areas, as well.

Educational/Cultural Support

Corporate social contributions have developed to an advanced step for creating value from physical donation. We also intend to contribute to the growth of local societies from the long term perspective, teaching them how to catch fishes instead of just sharing fishes. To achieve this, we support for cultivating men of ability through various educational supports and actively participate in cultural promotion activity which brings vitality to local communities.

Educational Support

LS Dream Science Class || To teach elementary school students the importance of energy and electricity principles, we hold LS Dream Science Class. In 2012, we invited 30 elementary school students at Gumi who are interested in science, and provided an opportunity to conduct an experiment of science principles that the students have been wondering. In addition, the participants had a meaningful time to able to understand green energy by assembling solar robots. Currently, the LS Dream Science Class is held biennially during the summer and winter breaks. From 2013, we will expand this class to our group's representative social contribution program, by supporting the dreams of our children and giving them more chance to learn about science. Through a matching system with the Ministry of Education, Science, and Technology (MEST), we also offer a class entitled 'Understanding of Electricity and Cable' to high school students at metropolitan areas and Gumi. In the class, our researchers with Ph.D. or MS degrees and team leaders participated as a teacher to provide a lecture full of expertise and experience.

A Training for High School Students ||| Aimed at nurturing talented technical experts, we offer a on-site training program to high school students. Under the MOU with 4 mister high schools such as Sudo Electric Technical High School, Gumi Electric Technical High School, Geumo Electric Technical High School, and Gyeongbuk Machinery Technical High School in 2012, we provided an opportunity of on-site experiences to 12 students. The students selected by the recommendations of school principals took a professional training on on-site process and products, etc. through our in-house human resource development program. Instead of just one-time training, we will also offer a chance of employment for good performing students. In recognition of the value and sincerity of our educational contribution program, we received the Grand Prize in the first Korea Educational Contribution Award hosted by MEST on December 7, 2012.

Business-Academic Cooperation with Local Colleges ||| By building academic cooperation satisfying both corporate and regional demands, we intend to secure talented workforces from local communities and contribute to the local economic development and corporate competitiveness. In 2012, we officially embarked on a cooperative program to train a cable engineering expert with Kangwon National University and provided a lecture on cabling system to the electrical, electronic and IT engineering students. Our researchers with Ph.D. or MS degrees and senior level managers who have an excellent manufacturing experience shared knowledge of the cable system, design theory, manufacturing technology and quality control with students. Students with outstanding performance will be given the chance for employment through the internship course. We also continue mutual cooperation for joint R&D and talent development by joining the MOU with the Ulsan National Institute of Science and Technology (UNIST).

Cultural Support Development

Cultural Heritage Protection Activities ||| We have engaged in 'Cultural Heritage Protection Campaign', which involves cleanup and maintenance activities in the Iron Age Remains at Songleong-dong near Donghae worksite. Designated as Cultural Property of Gangwon Province No. 84 in 2005, it is a place with a high preservation value since is believed to be the center of ancient country in the Iron Age. We plan to expand this program to other worksite.

Sponsor of Baduk Contest in Vietnam III LS-VINA, our subsidiary in Vietnam, has sponsored the LS-Vietnam Baduk Championship held in Vietnam since 2011. The contest started to vitalize cultural exchange between Korea and Vietnam and promoted Baduk in a country where there is an increasing interest in Baduk. From September 15 to September 18, 2012. the second LS-Vietnam Baduk Championship was held at Danang in Vietnam, in which 60 representatives from 8 cities in Vietnam participated. We have supported important events including the 65th Vietnam Independence Day, Vietnam Culture & Tourism Festival, International Night of Korea and Vietnam, and Local Culture Experiences for Korean opinion leaders.



Interview

⁶I believe educational contributions are like 'priming water'. In the past, we used underground water instead of tap water in rural areas. One basket of water, called 'priming water', is used to draw more water. I hope our educational contributions will be continuously strengthened to play the role of 'priming water', and by holding camps, we hope to draw up the dreams of children.

> - Hyun-Ho Kim Assistant Manager Labor-Management & General Affairs Team, Gumi Plant

Sharing Activities for People in Need

Our volunteer groups, consisting of employees, conduct activities to support the underprivileged. While supporting the dreams of the socially underprivileged that require empathy and cares such as senior citizens living alone, handicapped children, and children that do not have meals beyond mere contributions, we intend to contribute to creating a happy community with all social members. While upholding the principle of silently but steadily sharing and contributing, we will systemize our activities by setting the direction of contribution.

Support for the Underprivileged

Volunteer Group Activities III Our volunteer groups at each worksite carry out social contribution activities such as support for senior citizens living alone and volunteering activities in welfare facilities in regular basis. The volunteer groups, called 'Chamsarang Society' of the Gumi and Indong workplace were born in 1999 and 'Jeongnanum Society' of the Donghae workplace was organized in 2009. The activities of each volunteer group are funded by membership fees, irregular sponsor donations, contributions, etc., focusing on supporting the local underprivileged.

Blood Donation Relay III In July 2012, we participated in the 'LS Blood Donation Relay' event together with LS Industrial Systems and LS Mtron headquartered in LS Tower. This company-wide activities was to help alleviate the blood shortage, in that domestic blood donation rate is too low at 4~5% and there is a great deal of difficulty to meet the demand in summer season due to vacations. Blood donation certificates given by donors were handed to the families of employees and local organizations in need of help.

Donation of Salary-Odd rounded down III Upon the voluntary consent of employees, we collect odd sums amounting to less than USD 1 from their salaries and bonuses on a monthly basis. We are currently donating a matching sum to the fund. In 2012, with the donation from salary, we grant about USD 3,500 in sponsorship every month to 37 in need of help including senior citizens living alone, people with physical handicaps or children living with their grandparents in Anyang, Gumi, Indong and Donghae.

2012 Major Activities of Volunteer Groups

Group	Activity Description	Beneficiary	Date	Participants (person)	Performance (in USD)
Chamsarang	Free meals for the elderly living alone	Gumi Social Welfare Center	Monthly	15/a month	6,143
(Gumi·Indong)	Hosing renovation service		Frequently	10/a visit	934
	Kimchi-making campaign	Year-end	Year-end	40	4,668
	Briquette donation	Gumi Health Center	Year-end	20	1,867
	Volunteer activities, birthday parties, physical exercise contest, etc. for orphanage	Kimcheon Welfare Home	Monthly	10/a month	7,469
	Haircut service, birthday party for the elderly, heating and meal expense supports	Seongsim Elderly Home Ansa Elderly Community	Monthly	5/a visit	1,811
	Provision of lunch for needy children	Buksam & Yesan Elementary Schools	Monthly	-	2,801
Jeongnanum	Party for the elderly in Sonjeong-dong	Songjeong Elderly Club	Once a Year	2	467
(Donghae)	Rice & kimchi donation to Songjeong Community Association	Songjeong Community Association	Year-end	25	5,471

Support For Local Government Welfare Program ||| We proposed to set aside about USD 180 thousand to donate USD 90 thousand each to the welfare projects of Anyang and Gunpo, our local communities, out of the yearly donation that all LS Group affiliates make together to the Community Chest of Korea. Since our proposal was accepted, we were able to contribute to the local welfare projects. In October 2012, we donated vehicles (six minibuses and one compact car) to the Community Chest of Korea for welfare organizations nearby Anyang and Gunpo. We also invited more children from low income groups to the LS Dream Science Class. In 2013, we have a plan to diversify the program for supporting local government welfare programs.



Special Page

Topic

How to Contribute to Local Economy Development 200 MW Submarine Power Network between Ras Laffan Industrial Complex and Halul Island in Qatar



Halul Island, which is an island around 80 km northeast of Doha, the capital city, is the nerve centre for Qatar's offshore oil operations with a full facility for storage, refinery, and shipping of crude oil produced near the ocean. Despite its importance as a main industrial center, Halul Island has been supplied with electricity through self power generation, because it is not linked to the homeland electricity networks in Qatar. We will install 200 km of 132 kV high voltage submarine cable to connect Halul Island to Ras Laffan Industrial City, a roughly 80 km north of Doha, so to transmit up to 200 MW electricity to the island. Two 100 km-long circuits, 200 km in total, which comprises 3 core power cables with embedded fiber optic cables will ensure safety and durability in the sub-sea environment. In addition, it will be installed, leaving the Halul Island's natural environment such as habitats of wild animals intact. This project is expected to contribute to Qatar's economy by providing a stable power supply route to the Halul Island.

※ Submarine Cable

Installed in the sea bed, Submarine Cable transmits a large quantity of electric power between countries or between the mainland and islands. It is expected to grow rapidly, as it transmit electric power from tidal plants or wind power plants located in islands or at offshore to the lands, in addition to power supply to the islands.

How to Share Love with Local Community Volunteer Activities for providing a help to every corner of our society

Co-Family Camp we support the Bono Welfare Center in Ansan which takes care of children with physical handicaps, so to enable the children to communicate better with the society. Since 2008, we have offered the 'Co-Family Camp' for the children and their families to enjoy a variety of physical activities, cultural experiences and year-end party, etc.. In 2012, we invited 58 children and family members to summer and winter camp in July and December.

Briquette Donation & Kimchi Making Campaign We carry out a briquette donation activity and a Kimchi-Making campaign at the end of every year. On December 4, 2012, the Chamsarang Society at the Gumi / Indong sites delivered a total of 2,200 briquettes to 11 households with the Gumi Health Center. On December 7, employees at Gumi / Indong sites and their family members participated in the Kimchi-Making event at the Gumi Social Welfare Center. They made kimchi with roughly 2,200 kg of cabbages and delivered it to 150 households in need.

Purchase of Fallen Pears by Typhoons In August 2012, typhoons of Bolaven and Binden caused serious damage to fruit farms with their heavy rains and strong winds sweeping Korea. Our employees made a purchase of 1,000 boxes of fallen pears in an effort to help famers suffering from the typhoons. Even expatriates in China and Vietnam are participated in the event.

Goethe said, "Treat people as if they were what they ought to be and you help to become what they are capable of being." This illustrates our attitude to employees, a respect for our employees by helping them to grow and by respecting their journey of growth. Above all, we make a utmost effort to make a safe work place with a top priority on safety, so that employees can work safely and go back to their homes happily.

Employees

Workforce Profile in our Global Network

Our 9,028 employees around the world, are the driving force that lead our growth and development. They come from different and various cultural backgrounds, but push towards common goals : this is our principle of 'being equal but different'. The basic approach we apply to all business sites is that we understand social and cultural differences for each business site while incorporating human rights, safety and human resource development in one system.



(2,474) and employees of the domestic and overseas subsidiaries.

Glocalization

We respect culture of the local community where we operate and pursue 'Glocalization (Global+Localizaion)' which creates harmony between competency of the local worksites and global integration ability of the headquarter. At overseas workplaces, we fully respect for local talents to secure global diversity and strengthen global competency. At worksites in Korea, with the goal of increasing the share of the global member to 10% of total employees working in Korea, we try to attract global pool of talent. The number of global member, who is not Koreans, in our global network has reached 65% of the total employees, and reached 98% at overseas worksites.

Respect for Human Rights and Diversity

We support the UN Declaration of Human Rights and the international treaties for protecting employee's rights. We respect for the principles of human rights of the International Labor Organization^{LO}: freedom of association, prohibition of forced labor, prohibition of discrimination, and prohibition of child labor. Furthermore, we respect dignity and autonomy of employees under Chapter 5 of our Code of Conduct : 'We respects any and all employees as individuals and treats them fairly depending on their abilities and performance. LS Cable & System also tries to allow employees to show their creativity fully'.

Prohibition of Discrimination III As stipulated in Chapter 5 of our Code of Conduct, we prohibit unfair discrimination for reasons of gender, academic ability, age, nationality, religion, or region of origin to provide equal opportunities of promotion, reward, and training. All employees get a fair chance and are rewarded based on their performance. An employee who feels discriminated against may ask for help from the Help Center. the labor union, the grievance process channel, and the cyber reporting channel. In 2012, there was no discrimination case reported.

Freedom of Association Activities III We guarantee three rights of labor: the right to organize, the right to bargain collectively, and the right to take collective actions according to Article 33 of the Korea Constitution. Accordingly, we guarantee of forming an employee representative organization and freedom of union activities. We do not discriminate any employees for just participating in association activities. We discuss issues related to the working environment and reach an agreement for the plan through which both labor and management may mutually development, by holding the Participation & Cooperation Promotion Council and the Labor/Management council, guarterly. Through this, efforts, we have maintained cooperative relations without labor disputes for the last 24 years since 1989.

Prohibition of Child Labor and Forced Labor III Under the Korea Labor Standard Act, employees under 15 years old and under 18 years old that are in middle schools cannot be hired. We prohibit labor by children under 15 years old and limit the employment of adolescents who are in school by complying with the UN Global Compact principles and the Labor Standard Act. We also pay attention to prevent child from even unintentionally occurring by reviewing documents which may verify the identities of employees. In regard to forced labor, our employees joined our organization by their free will. Forced labor against employee's will are also strictly prohibited. The working hours are 8 hours a day and 40 hours a week, without forcing night duty and holiday work. If necessary, we pay overtime work allowance for overtime work performed with prior consent.

Human Rights Protection ||| To prevent discrimination and unfair labor practices, we operate reporting channels such as the Cyber Reporting Channel and the Sexual Harassment Counseling Desk. Anyone may receive counseling and file a report freely and anonymously. In 2012, there was no case of reporting and non-compliance. To enhance the awareness of human rights, we provide a training on sexual harassment prevention and human rights every year. In 2012, we conducted an anti-sexual harassment training for all 2,267 employees and provided a human right and ethics training as the corporate core training programs for new hires and overseas transferees. The Serve One, as a securityproviding supplier, conducts monthly training for human rights and ethics, including 18 of our security members.

Respect for Diverse Cultural Backgrounds of Employees ||| We conduct the human right training programs to allow employees from diverse cultural and social backgrounds to mutually understand other's cultures and respect diversity. Also, the Global Help Desk is in operation to help resolve any grievances/challenges of our global members. Through a group-wide training that is also offered to overseas subsidiaries, employees at all workplaces share the corporate vision and values, as one LS Cable & System, and spread the principle of mutual respect of LSpartnership. We also offer cultural, ethical, and human right training programs to expatriate who work at overseas subsidiaries and branches before their leaving.

Respect for Female Resources ||| Although female workers are still a minority given a nature of the industry, an industrial material manufacturing industry, we actively hire female talents by creating a female-friendly work environment and providing institutional supports such as maternal leave. As a result, female employees are increasing continuously. As of 2012, female managers account for 2.4% of the total managerial positions and we have a plan to nurture female leaders through a specialized leadership training program.

Code of Conduct

Chapter 5. Corporate Responsibilities for Employee

- Treat Employees Based on Abilities and Performance
- You shall provide employees with opportunities for improving their abilities fairly and not differentiate between them depending on academic background, gender, age, or birthplace.
- You shall establish, inform, and conform to criteria for evaluating the abilities and performance of employees in order to create an environment of fair competition.
- Free Speech
- You shall establish systems required for employees to make suggestions and to express difficulties freely.
- Responsibilities for Health and Safety
- You shall take measures required for the health and safety of employees. • You shall take safety measures required in places of work where there
- are hazardous or harmful objects.





2.3%

2.4%

17

Global Competency Development

Aimed at developing a creative and competent human resources to realize a corporate goal and vision, we strive to create conditions that promote performance and provide a fair compensation based on performance. To achieve this, we operate a strategic performance management system to connect performance with competency development and establish an evaluation system and the human resource development system linked to corporate strategies, core values, and employee's individual ability.

Our Approach

We have established the SPCM (Strategy Performance Competency Management) system to manage and improve performance. The SPCM is the system encourages responsibilities through participation in and agreement on the objective settlement and systematic career development and motivation through an analysis of personal strengths and required development areas. Based on the SPCM, our employees set the performance goal and establish the competency development plan to achieve our business vision and goal.

Performance Management & Fair Evaluation

Early every year, employees set the goals for their organization group, team and individual works and establish competency development plan according to the SPCM process. We set up Key Performance Index (KPI) and competency metrics for the established goal and objectives and ensure effective performance through a regular review and feedback. Noticeably, we provide a clear guideline on performance evaluation criteria and ask for the compliance with the established evaluation processes. In the meantime, feedback on evaluation results is provided and employees have a right to discuss about their assessment results as a method to prevent distortion of the evaluation and to ensure transparency. The system encourages the linkage between the corporate goal and individual's, employee's acceptance in the evaluation result and the competency development in connection with evaluation. Taking into account both organizational and individual performances, the compensation is based on evaluation results and provided in the forms of basic annual salary and incentives.



Congratulations of Great Performance

Overseas Trip for Employees with Excellent Performance || In 2012, we provided overseas trip to 63 employees selected as model employees. They visited Bangkok and Pattaya Thailand during the five day period in June and July.

Employees of the Month ||| We select the employees who achieved excellent performance in their own field (sales, production, development, and support) or contribute to establishing innovative corporate culture, as the employee of the month. We celebrate their achievements and motivate for performance. In 2012, a total of 33 employees were selected as the employees of the month. In 2013, we will make a reform of the reward system so to award prizes to selected employees that lead LSpartnership practices guarterly.

Mid-& Long Term Training ||| By selecting employees with excellent performance, we support mid-long-term training programs including courses for academic degrees and overseas training programs. In 2012, 24 employees took the long and midterm specialized trainings required for long-term competency.

Overseas Tracking Given to Well Performing Team Leader To encourage excellent leadership and performance and help employees achieve work-life balance, we offer a tracking tour to team leaders that showed great performance. In 2012, 6 team leaders and their spouses were provided a chance to go a tracking to Kota Kinabalu, Malaysia and Huangshan, China for three nights and five days.

Human Resources Development

Based on our belief that sustainable performance is achieved through human beings, we provide diverse and systematic training programs to cultivate employees' capability and increase organizational competency. Our direction to develop human resources lies in developing a global specialists who promote self-initiated competency development and have an ability to actively respond to changing environment, so that both company and employees grow together.

Self-Initiated Competency Development ||| We establish our self-development plan to empower employees to take charge of their own self-development while enabling them to check their current competency level, improving competency, and developing careers. Through frequent interviews with team leaders, we enact the selfdevelopment plan and operate processes for promoting the execution. The team leaders play a role as mentors for coaching and execution to develop the careers of teammates. We grant opportunities for developing career substantially through our career development system.

Global Specialists ||| We establish an training system to realize our values and foster expertise with global competitiveness.

- Long / mid-term Training To foster promising executives, we support mid/long-term training and various degree courses. For example, we fully pay tuition fees for graduate schools, and support domestic and foreign MBA courses, degree courses, overseas training, and Techno MBA courses for enhancing R&D fields, and a management strategy academy for planning ability.
- Leadership Training To encourage leadership, employees should take a compulsory leadership courses for promotion, a leadership competency model, competency development program and on-site leader training.



'Happy Companions' Program to All Employees in Technical **Posts** >>> We conducted the 'Happy Companions' program twelve times to share our vision and achieve the goal of 909 employees in technical posts during the period from September 19 to November 13. They had a great time in sharing our management direction, identifying the importance of on-site activities to achieve the goal, and pledging to fulfill practices and responsibilities.

Training Course for Sharing Vision and Strategy in LS-VINA

For 410 employees in our subsidiary in Vietnam LS-VINA, we offered the training course four times during the period from April 18, 2012 to April 26, 2012. This course was designed for the clear recognition and sharing of our global vision and strategy while infusing selfesteem as one of the LS family. Based on this course, we built the foundation to conduct their education program, reflecting the nature and goals of LS-VINA. In the future, we intend to establish and operate a systematic education system categorized by job and function

- Global Competency To foster global leaders and enhance competency, we provide an intensive course for foreign languages in the long-and mid-term and support for outside foreign language institutions and a cyber training course. We also conduct a training for local employees, as well as work experience to domestic worksites. For expatriates that work in overseas worksites where culture and environment are different, we help them settle by providing a phased education before deciding to send them, during their stay in foreign counties, and after returning to their homeland.
- Customized Learning We provide guides and educational courses to help employees to understand the competency required to perform business strategies and improve performance, identify their current level and systematically develop their competencies which they are insufficient. We also provide an on-site educational roadmap and help them to select a course according to the results of the competency diagnosis.
- Training for Newly-hired Employees New employees are trained through the OPEN program. OPEN stands for the four values that new employees must uphold. Ownership, Pioneer, Energizer, and Networking, and represents the opening of dreams for new employees. We support their self-development through intensive care programs for new employees including one-year introductory courses, OJT and mentoring activities, troubleshooting courses, and vision setting.

'Cross-cultural Management and Positive Leadership' Program for Our Global Members >>> We conducted the 'Cross-cultural Management and Positive Leadership' program for 18 global members working in Korea. The purpose of this program was to develop skills for effectively communicating in a global environment and resolving conflicts arising from cultural differences. We focused on developing positive mindsets to build a positive future as a global company.

Foreign Language Learning Courses (English & Chinese Intensive **Courses, English-speaking Village Course)** >>> To foster employees with global business competency, we operate foreign language courses focusing on practical conversations. Our intensive courses for English and Chinese are six-week courses for improving the employees' ability to fluently speak the languages at LS Group's training center. The four-week English-speaking Village course is operated at Gyeonggi English Village to cultivate global mindsets through the experience of global culture. In 2012, 38 employees joined the course. We will continuously expand these courses to help our employees enhance their global competency.

Promotion of Employee Wellbeing

We carry out diverse efforts to ensure that employees lead healthy, stable and prosperous lives. To make a great workplace, we have reflected dreams and happiness of employees in our management philosophy and supported welfare systems and family-friendly management, through a welfare system in 6 areas including four national insurances, so that employees can find satisfaction and pleasure both at work and home. We are also striving to improve our working environment and corporate culture.

Our Approach

Giving comprehensive consideration on physical, mental, and economic health of employees, we operate our welfare system in 6 areas and enhance the improvement of the organizational culture for family-friendly management and LSpartnership practices. Diverse programs in each area promote the health of employees and their families, support healthy recreational activities, and encourage socialization among colleagues so that employees can refresh themselves. In addition, scholastic benefits for children, housing assistance programs, and support for retirement preparation keep employees financially secured so that they can focus on their jobs with a sense of self-esteem.

Welfare System

Life

- Medical expenses reimbursed for employees
- Medical clinic for employees' family members by the
- in-house welfare fund Healthy • Medical checkup for employees/spouses
 - Sports facilities
 - Operation of health care room or clinic • Counseling program
- Club activities-activity costs support • Anniversary celebration (birthdays, weddings) : gift Cultural cards offered
- Life • Culture events : movie tickets, family invitation, tickets for sports event, family day
- Celebration for long-term employed person : Family refresh grant with gifts for employees service period of 5, 10, 20, 25, 30 and 35 years Energetic • Recreational facilities : condominiums, free lodging at Life the Baekam training center
 - Overseas trips for good performing employees • Company outing : twice a year (Spring & Autumn)
 - Allowances and leaves for congratulations & condolences of employees and their family members
- Stable • Dormitory and/or apartment housing for local plants Life • Insurance : Group life insurance (covering death,
 - incapacitation due to disease
 - Commuting vehicles : Commuting buses and shuttles
- Online training course : In-house online training course every month (job skills, leadership, foreign language, etc.) Promising
- Mid/long-term education support : master's degree Life course, MBA, intensive foreign language course, etc. • Outside training courses : job skills (professional
 - gualification) education, foreign language course fees • Scholarships : Full scholarship for children in middle/
 - high school / university Housing loan
- Prosperous • Discount on products manufactured by the group (all Life products of LSNetworks) Gifts for retired employees

Welfare System

We have a variety of family-friendly initiatives to ensure work-life balance of employees as well as happier life for their family.

Place for Female Employees ||| We operate a nursing room and female staff lounge. The female employees association also gather opinions from female employees and supports club activities.

Family Day ||| We designate one day per month as family day on which employees may leave their office on time to spend time with their family members. We also host various family day events for employee family members.

Maternal Leave ||| We allow employees with children under 6 year-old to take maternity leave up to a year and guarantee their return to work after the leave. In 2012, 6 female employees went on maternal leave, and 4 among these 6 came back to the original team to which they had belonged.

LSpartnership Program

We develop activities for a bright and healthy LS and happy employees by maintaining a work-life balance and a smart work atmosphere.

LSpartnership Refreshing Weeks ||| To take a rest is essential for refreshing the body and mind and restoring energy. LSpartnership Refreshing weeks, which allow up to 2-week intensive holidays, encourage employees to revitalize and have a good time with their families for the sake of creative work performance.

LSpartnership Wear Smart III To allow employees to promote creativity and engage in their jobs under the best conditions, we changed the dress code from a professional suit-style to a business casual style without ties.

LSpartnership 119 Campaign ||| We promote a 119 campaign for true harmony through a sound corporate get-together system. The 119 campaign means having a one-time get-together with one kind of alcoholic beverages and ending before 9 o'clock.

Healthy and Safe Workplace

Employees have rights to work healthily, safely, and pleasantly. To guarantee these rights, we prioritize safety and health. To create a healthy workplace without any physical and mental accidents or injuries, we operate our occupational health and safety management system based on OHSAS18001, an international standard for health and safety management. In addition, preventive activities jointly arranged by labor and management are carried out to enhance the management level and prevent accidents.

Our Approach

We have established the corporate management policy to systematically and effectively control and manage risks that may threaten the safety and health of employees. We also organized a dedicated team having a responsibility to manage workplace safety and established the management system under OHSAS18001. A management manual is provided to all employees in order to enhance the safety level of all our workplaces, as detailed goals are established by each workplace.

Health & Safety Organization The head of each worksite has the practical responsibilities for the safety and health policy in their workplace. The experts of the safety and health management regularly check the management level, identify risk factors and take corrective measures for identified risks.

Occupational Health and Safety Committee We operate the Occupational Health and Safety Committee, in which equal number of labor and management (7 representatives, respectively) participate, including labor union leaders, honorary health & safety supervisors, safety managers and health managers. This committee makes decisions on creating a safe workplace including the plan for removing potential risk factors and disaster-prevention activities.

Preventive Activities

OHSAS18001 Certification ||| All our domestics sites (Gumi, Indong, Anyang, and Donghae) are OHSAS18001 certified and getting a post-certification test & re-certification assessments each year from the certification authorities. We have continued to improve our ESH (environment, safety and health) management system that is up to the global standards and also support domestic and overseas subsidiaries to acquire certification.

Zero-accident Declaration III Every year we declare our commitment to have zero accidents in all worksites by increasing the safety awareness among employees. The general manager of each department draws up a yearly plan on health & safety and announces it, and employees adopt the declaration on zero-accident and safety activity.

Labor-Management Joint Activities ||| With the purpose of making substantial progress in on-site health and safety management, labor and management jointly visit the sites and address issues through joint safety check-ups. Both labor and management have made efforts to realize a 'safety first culture', by the joint activities including hazardous machinery / equipment improvements.

Hazard Detection ||| We have improved on-site problems through voluntary safety checks every month. The hazard detection exercise is carried out by involving all employees on the hottest and coldest days of the year, when safety awareness might fall to its lowest. We also conduct a safety checks for all equipment at sites and improve detected risks. In 2012, we found out and improved 2,952 risks.

Health & Safety Training III To raise awareness on health and safety among employees, we conduct health & safety training on a regular basis. We asked a 3rd party professional agency to conduct the training on health & safety management for safety supervisors every year, and provide regular training for all employees, at least two hours every month, on the importance of safety and the danger of machinery/ equipment and their handling. We operate health & safety trainings for suppliers as well, and share related information during our monthly meetings with suppliers.

Health Promotion Program III We provide comprehensive medical checkups to employees over the age of 35 and their spouses free of charge. We support medical expenses for those with health issues and in need of professional treatments. For employees that need to take care of their health, we provide them with health improvement plans together with advice on lifestyle, exercise, and diet.

Domestic Plants	Subsidiaries
Gumi, Indong, Anyang, Donghae	JS Cable, Alutek, LSHQ



Green Management

We have a responsibility to give the next generation the Earth that is in good and clean condition. Until the last century, we have only focused on product technology and quality, but now we are recognizing the value of preserving the environment, through which our communities and future generations are able to live healthily and happily in this world. To improve environmental values, we implement green management that manufacture a green products at eco-friendly workplaces in an eco-friendly way.



Green Management Policy

Our green management aims at creating a value and securing global competitiveness through environment strategies and processes that fulfill a global standard and reflect the characteristics of a local society. By implementing a management system established in 2010, we have realized a green management and improved it in a more effective and efficient way by strengthening cooperation with stakeholders.

Our Approach

Based on the established green management system, we are pushing ahead with the following environmental strategies : **Green Operation**, which aims to reduce environmental and energy load by our operations, **Green Product**, which seeks to enhance the development of eco-friendly green technology, and **Green Partnership**, which aims to establish an eco-friendly supply chain. Our green management strategies consist of step-by-step initiatives— namely, establishing the green management system, expanding it to subsidiaries and suppliers, and building a global green management system. Going forward, we will improve the effectiveness of our green management through the development of performance indicators and evaluation system.

Mid-term Green Management Roadmap

Category Global Green Management System		Establish green management system 2010-2011	Expand green management into all subsidiaries / supplier 2012-2013	Build a global green management system 2014-2015
		Establish a green management strategy Build a training system on environment	Disseminate a green management system (subsidiaries/business partners)	 Expand green management system to overseas workplaces Integrate green management of all workplaces at home and abroad
Green Operation	Response to climate change	 Build a greenhouse gas inventory in all domestic workplaces Define and achieve energy / greenhouse gas reduction targets 	 Build and expand an integrated energy / greenhouse gas management system Set KPI of energy / greenhouse gas management 	 Establish the greenhouse gas inventory at all workplaces at home and abroad Calculate carbon information in basic unit of products
	Global green workplaces	 Designate/maintain all domestic workplaces as the Green Company Expand ISO14001 certification to overseas workplaces Remove environmental risks 	 Expand ISO14001 certification to overseas workplaces Develop resource consumption reduction activities (recycling expansion) Provide EHS trainings to suppliers 	Certify ISO14001 at all workplaces at home and abroad Implement environment accounting System
Green Product	Green product	Define green product management process Build an environmentally hazardous substance management system Expand green product certifications	 Establish an eco-design development process Establish an integrated IT system for responding to hazardous substances regulations Acquire global green certification 	 Develop an in-house green product labeling system Integrate a global green product management Expand low-carbon green product certification
Green Partnership	Green communication	Expand CDP Disclose environmental data transparently	 Expand carbon partnership Disclose environmental data transparently 	Disclose environment data of all global workplaces
	Green supply chain	Implement a green purchase system Provide green management trainings to suppliers	Expand a green purchase system Introduce green supply chain certification	Apply green purchasing to all global workplaces Manage green purchasing targets

2012 Green Management Activities

Category	Green Operation	Green Product	Green Partnership
Activities	Enhanced response to climate change Expanded eco-friendly workplaces Conducted resource saving activities Reduced pollutants	Expanded green product lineup Established hazardous substance management system Complemented global hazardous substances-regulating response system	Expanded green supply chain Disclosed environment information Strengthened communication with stakeholders
Achievements	Diagnosed energy use of all plants Reset GHG / energy KPIs Maintained a Green Company (Gumi, Indong, Donghae) Obtained ISO14001 certification (domestically : 100%, overseas : 70%) Conducted a voluntary agreement of waste cable recovery	 Establish a response manual to global regulation change (RoHS 2, REACH, ELV, etc.) Established a performance evaluation system of Eco-Design Established a green labeling standard and designated a green labels Obtained 8 types of requisite certifications (CE Marks) and green certifications (FloorScore, etc.) 	 Expanded evaluation of green supply chain to suppliers to which regulations on hazardous substances are applied (40 companies) Participated in the Green Partnership with the SMEs Expanded green purchasing (governmental contracts, supports for suppliers) Disclosed environment performance and carbon information (CDP) Suggested a policy on green products and technology development
Risk Factors	Carbon emission trading GHG target management system Increase in raw material price	Strengthened product regulations (REACH, RoHS, WEEE) Increase in demand for green products	 Expansion of the evaluation system for the product life cycle Customers' increased demand for carbon disclosure Promotion of environmental conservation Activities
Team in charge	Facility Planning Team, Facility Management Team, Environment Safety Team, Production Team	Technology Planning Team, Purchasing Planning Team, Development / Design Team, Quality Assurance Team	Purchasing Planning Team, Quality Assurance Team, Public Relations Team, Development/Design Team

Green Management System

Integrated Environmental Management System

In 1997, We have declared our company-wide policies on environment and work place safety, and built an environmental management system that meets the ISO14001 standard, an international standard on environmental management. At the same time, we identify the environmental risks related to our business each year, and take corrective actions for improvements and verify our compliance level throughout the operating system

through a third party's review. In particular, our Malaysian subsidiary acquired ISO14001, in 2012, so that all of our domestic plants, two domestic subsidiaries, and five overseas subsidiaries are certified with ISO14001 certification. In recognition of our capabilities in system-based environmental management, Gumi, Indong, and Donghae plants have been designated as Green Companies by the Ministry of Environment. Moving away from the conventional policies that focus on meeting regulations, we are currently engaged in voluntary environmental management activities. A green company is recognized by the Environment Minister as a workplace that largely contributes to environmental improvement through eco-friendly activities including the implementation of a green management system, reducing pollutants and energy saving.



Cases of improving environmental impacts –Air pollutant Emission Reduction

The Amendment of the Act on Control of Residual Organic Pollutants was made in 2012, leading to the enhancement of the Dioxin Emission Standards. We accordingly installed a processing facility by newly investing roughly USD 653.5 thousand into a SCR smelting furnace, a dioxin discharging facility. We manage the dioxin density below roughly 50% of the legal requirements.



*TEQ: Toxicity Equivalency

Category	Dioxin Discharge Density (ng-TEQ / Sm ²)			
	Before change	After change		
Legal standard	10	1		
Density	6.995	0.494		
Ratio of Emission to legal standard	70%	50%		

to make investments in reduction of environmental impacts. in transition to an eco-friendly manufacturing process and improvements of the employee's safety and health. In 2012, we invested USD 30,249 thousand into the R&D of green products, USD 710 thousand for transition to eco-friendly processes and environmental equipment, USD 93 thousand in energy conservation, and USD 2,707 thousand in enhancing the safety and health of employees and reducing impact on the environment. In addition, we analyze the environmental costs and benefits of our activities with the aims of objectively identifying the outcomes of our environmental management. Currently we are analyzing the cost and benefit involving eco-friendly process, environment facility, green product development and wastes treatment, and will expand management scope to entire manufacturing process by setting environmental accounting index, in the future.

Environmental Investment and Returns ||| We continue

Green Management Organization ||| The Green Management Council monitors and evaluates green management and promotes execution. The green management policies and implementations are overseen by the Quality & Environment Process Team which are organized within the Technology Development group. To meet the green management midterm roadmap, we operate the Climate Change Committee, the Green Product Committee, and the Environment, Safety & Health Committee, which decide the direction of activities through a regular meeting every guarter. In addition, the Environment Safety Team at each workplace performs green management activities suited for each site.

Evaluation & Continuous Improvement ||| For all production processes including purchase of raw materials, manufacturing and transportation, we implement an assessment on environmental impacts and take a corrective measures against the serious environmental impacts and risk factors that are derived from the assessment. For more effective environmental impact assessments, we categorize our corporate activities into processes that can be measured and assessed. Then for each process, we identify the input & output substances as well as the volume and toxicity of pollutants, and assess the harmfulness of the substances used during the process as well as the risk factors involved. The derived environment risk factors are reflected in the improvement programs in consideration of economic requirements, regulations, customer demands, and technology requirements.



Life Cycle Assessment Activities





- Implement voluntary agreements
- Recollect and reuse wastes

Product

Our Activities

criteria

Use of harmful substances

More use of green products

analysis laboratories

· Set product environmental quality assurance

· Be designated as international certified

Use of resource

Packaging

• Provide a handling manua

Our Activities

- Apply heat treatment to wooden packaging material
- Use green drums
- Recycle drums

• Dust : 3.091 kg

• NOx : 22.501 kg

• GHG : 192,000 tons CO2eq

OUTPUT

 Wastewater: 115,181 tons Chemical oxygen demand^{COD}: 1.802 kg • Suspended solid^{ss} : 439 kg

- General wastes : 14,702 tons
- Designated wastes : 2,193 tons
- Outside commission recycling : 12,971 tons

Climate Change Response

Climate change is not just a risk that may occur, but it threatens our lives through a weather change such as scorching heats or flooding and changes in the ecosystem. According to research conducted by scientists, the accumulated CO₂ emission should not exceed 1~1.5 trillion tons by 2050 to prevent an average global temperature from increasing up 2°C. We are participating in mitigating climate change with responsibility and especially supporting customers to reduce GHG through eco-friendly products.

Our Approach

To reduce GHG emissions, we must consider energy efficiency throughout entire processes including raw material purchase, product development, provision to customers, and transportation. Accordingly, to reduce GHG emissions and energy in entire supply chain, we establish an energy and carbon management system incorporating supply chain through a partnership program with SMEs. Also, in manufacturing process, we strive to minimize energy consumptions through low carbon production and target management. In particular by actively developing products required for renewable energy businesses and for highly efficient energy transmission, we intend to contribute to reducing energy that customers use. Furthermore, we improve a transportation system and methods to reduce carbon footprints during the transportation.

Low Carbon Transportation

Low Carbon Materials Purchase Use of areen wooden drums Green partnership with SMEs Green Cooperator Certifications

- Low Carbon Manufacturing Diagnosis of energy use and improvement activities Facility improvements
- Low Carbon Goal Management Establishment of GHG inventory Implementation of energy and carbon information system

Low Carbon Product Development • Development of products for renewable energy generation Development of high-efficient products

Supply Chain Carbon Management System

We are promoting the purchase of green products by establishing a green purchasing guideline. In case of the drum used for storage and transportation, we use eco-friendly timber certified by the FSC (International Forest Stewardship Council). To reduce carbon emission jointly with suppliers, we form the SME & Large Company Green Partnership program and support the implementation of low carbon manufacturing system of suppliers. The partnership program with SMEs is a national project led by the Ministry of Knowledge and Economy with the goal of building a green shared growth partnership system in the supply chain for low carbon society. In 2012, we conducted the energy diagnosis and GHG inventory building projects for 10 suppliers. In addition, through the training for working-level employees, we are systematically expanding our energy carbon management system. As a performance of such activities, we drew and supported for implementations of more than 20 energy-saving plans for suppliers and successfully calculated the carbon emissions of 10 products. In particular, we laid the foundation for allowing suppliers to manage GHG emissions by building the supplier's GHG inventory. In 2013, we will expand supporting projects by adding 10 new suppliers.



⁶⁶ We intend to provide the best value for customers by identifying risks and opportunities in regard to climate changes ⁹⁹

Risk Factors	Opportunities
Rise in costs due to increase in fuel and commodity price Decrease in construction-ready days due to a rise in rainy days from typhoons and floods Rise in costs for fiber optic cable clean room maintenance due to yellow dust from desertification Stricter energy and carbon-related	 Increase in demand for reliable and durable cables resistant to sudden weather changes such as typhoons Increase in demand for construction technology corresponding to climate changes Increased demand for submarine and specialty cables due to increasing renewable energy infrastructure including wind power and solar power
regulations and customer demands	 Expansion of the smart grid, superconducting

Expansion of the smart grid, superconducting cables to minimize power loss

Low Carbon Target Management System

In 2005, we built a GHG inventory that covers the entire domestic business including four domestic plants (Gumi, Indong, Anyang, Donghae), head office, and training institutes. Every year, we receive third party verification for energy consumption and GHG emissions. To manage information on GHG emissions more objectively and more effectively, in addition to management through the conventionally established inventory, and achieve our internal reduction target, we established the 'Energy & Carbon Information System' in September 2012 and operate it. The system comprehensively collects and monitors energy consumption and GHG emissions by each workplace. We can continuously analyze the energy consumption and GHG emission trends by registering the internal goals and the initiatives for reducing energy use and increase management efficiency through the calculation of the performance data by the system.

System Operation Process



Low Carbon Production Activities

During the manufacturing process, we use LNG, electricity and steam as main energy sources and partially use LPG. To reduce energy consumption, our Facility Management Team is leading the activities that are aimed at spending less energy of all business sites. In particularly, waste of energy and GHG emission is minimized in the energy intensive process and a manufacturing part through a quality improvement and reduction of facility waiting time. In 2012, we reduced the total energy of 4,193,457 kWh through a facility improvement and operation efficiency. When this is converted in GHG emissions, this is equivalent to GHG emissions reduction of 3,005 tonCO₂eq.

Plants	Items	Energy	Amount Saved (kWh, m³)	Costs Saved (in USD thousand)	Investment (in USD thousand)	CO₂ (ton)	L
Gumi	Installed a 300 HP blower inverter	Electricity	210,526	18.7	37.3	98	1.9
	Saved energy by integrating a low-load transformer	Electricity	1,126,316	99.9	4.7	525	10.1
Indong	Simplified degassing process in molten metal (LNG reduction)	LNG	227,273	186.7	-	510	10.0
	 Reduced melting waiting time by improving 3003 ROD efficiency (LNG reduction) 	LNG	227,273	187.7	-	510	10.0
	Improved utility equipments (chiller, steam, air) efficiency	Electricity	210,526	18.7	4.7	98	1.9
Donghae	Continuously operated energy saving patrol	Electricity	489,600	46.7	9.3	228	4.4
	\bullet Minimized stand by power of CV idle facility (control OFF \rightarrow load OFF)	Electricity	963,600	93.4	18.7	449	8.7
	Anti-interlocked hopper loaders and dust collector-operation at non-operation of cable stripper	Electricity	97,200	9.3	1.9	45	0.9
	 Used waste heats from water for industrial use for snow-plough equipment 	LNG	137,143	33.6	2.8	308	6.1
	Reduced power costs of compressor by locking valves at non- operation of rod caster	Electricity	180,000	16.8	0.9	83	1.6
	Reduced power costs of pump by remodeling a pump line	Electricity	324,000	28	0.9	151	2.9
Total			4,193,457	739.4	81.2	3,005	58.5





Energy & Carbon Information System



Emissions

In 2012, the total heats generated by energy use were 3,102,391 GJ, up by 0.6% from the previous year. Electricity consumption (244,938 MWh in 2011 \rightarrow 237.028 MWh in 2012) and LNG consumption (15.819.000 m³ in 2011 \rightarrow 15.353.000 m³ in 2012) were reduced from the previous year due to the reduction in production. Steam consumption was slightly increased due to heating. The increase of heat capacity (GJ) by energy use was because the calorific coefficient of electricity in 2012 increased (9 MJ/kWh in 2011 \rightarrow 9.6 MJ/kWh in 2012). Accordingly, the basic unit of energy as a unit of energy consumption input per unit product increased from 4.29 GJ/ton of product in 2011 to 4.69 GJ/ton of product in 2012 up by 9.3%.

The total GHG emissions in 2012 were 192.000 tonCO2ea, down by 16% from the previous year. The indirect emissions through the use of electricity and steam as main GHG emission sources reached 119,000 tonCO2eg, and the direct emissions by LNG was 40,000 tonCO2eg. In addition, 31,000 tonCO₂eg were discharged by the use of SF₆ gas. GHG emissions by the use of electricity and LNG were similar to those in the previous year, but as the result of the efforts for reducing the use of SF₆ gas, GHG emissions by SF₆ use was reduced by roughly 50% from the previous year.



Development of Low Carbon Products

Through the development of products for renewable energy and highly efficient products with low energy loss in transmission and distribution such as superconducting system solutions and extra high voltage cables, we contribute to the reduction of CO2 emissions at the phase of use. In the renewable energy field, we help the generation of renewable energy invigorated by providing core modules and operation system to the renewable energy sector, such as wind power generation cables & operation system and cables related to photovoltaic generation. For superconducting systems without electricity resistance, we will contribute to dramatically reducing energy lost in transmission and distribution and reducing the energy required to produce energy. In addition, the cables for smart grids and extra high voltage direct current (HVDC) systems with low energy loss in comparison with the traditional transmission lines are currently playing meaningful roles in reducing total GHG emission in our communities by increasing energy efficiency.

Transportation of Low Carbon

When shipping products manufactured at our workplaces, we reduce the number of transportation by improving the loading capacity and rates of transportation vehicles and increasing the ratio of marine transportation instead of air transportation with larger GHG emission footprints. Also, we operate commuter buses at all workplaces and encourage the use of railways by contracting fare discount with KORAIL. These efforts would be contribute to minimize the environmental impacts of transportation, especially GHG emissions.

Expansion of Eco-friendly Products

Cables are classified as essential products used in establishing infrastructure that deliver energy and information to our society. Beyond necessities, could they become a product loved by people? Our effort for green product development has its roots in our desire for the best loved products. Although they are not seen or found at easy in our daily lives, we believe that our products will be loved by our customers for their authenticity that preserve and deliver environmental values because they are manufactured in full consideration of environment.

Our Approach

Our green product strategy aims at increasing environmental values of customers and entire society beyond just manufacturing green products. To carry out this strategy, we establish and manage three criteria for green products : Eco Basic Products, which meet the legal regulations and our customers' needs, Eco Value Added Products, which enhance customer value through the minimization of environmental impact throughout their life cycle and take into account the environmental factors, and Eco New Products, which increase economic values while solving environmental problems. We are accelerating efforts to develop green products by establishing our response strategies according to different standards that categorize green products, monitoring the green product development and technology trends through ERP system, and also enhancing the management system by measuring environmental performance through the Eco-Index. Based on this strategy, we have developed cables for vehicles and home appliances that meet international environmental regulations, such as RoHSRestriction of Hazardous Substances and REACHRegistration, Evaluation, Authorization & Restriction of Chemicals. We have also provided green cables that minimize the use of resource and hazardous substance which may have a negative impact on environments, and improve efficiency and recyclability throughout their entire life cycle by applying the Eco-design process that meets stricter criteria than major environment certifications, which is not even subject to mandatory regulation. With regard to Eco New Products, we increase the product development capabilities with a goal of making green products our main products, while focusing on innovation of differentiated green technology from the long-term view. At present, we foster products that can contribute to the progress and growth of renewable energy and superconducting cables as future driving engines.

Definition and Management of Green Products



Eco-Basic Products

Products Satisfying Global Environmental Regulation and Fulfilling Customers' **Requirements for Green Characteristics**

Flame-resistant, low toxic, and halogen-free products developed through advance preparation and in-depth analysis, by actively responding to the global movement to require stricter environmental regulations and growing customer demands for eco-friendly characteristics.

We provide the values required by customers through 'glocalized' products and technology development in preparation for regulations on hazardous materials such as RoHS and REACH as well as environment / guality regulations by region. We also actively respond to the regulations on hazardous materials as Korea's first official test organization in the cable industry, a certified laboratory analyzing and testing RoHS regulating substances from UL^{Underwriters Laboratories} in the U.S. and TÜVTechnischer Überwachungsverein in Germany, by implementing an analytic system for hazardous substances. Eco-Basic Products that meet this product definition include a cable for high temperature used in engine rooms for vehicles. The cable replaces the Br XLPE insulating materials to the halogen-free and non-irradiated product, which reduces the use of hazardous materials and prevents byproducts from generating because the irradiation process is not required. Also, their insulation material is recyclable.

In addition, the high heat resistant busduct system used for switchboards in buildings satisfies the IEC60331 standard for fire and heat resistant specification. Through our creative design for structure, it is a product that secures flame resistance by only changing the materials used for its access kit insulation board and supporting insulators without using fire-resistant materials and ensures reliability in product performance without the use of hazardous materials such as halogen.

Eco-Design Product Adding Green Characteristics to Existing Product

Products with enhanced environmental value and performance that are enough to satisfy current legal regulations by applying a higher standard than environment certifications

Eco-Value Added Products is created using the Eco-Design process, which minimizes any negative environmental impacts of a product by taking into account environmental factors throughout its entire manufacturing process and improve product competitiveness by reducing resource use and improving efficiency and recyclability. This type of product aims to provide enhanced values to our customers by offering products that are enough to satisfy current environmental regulations and even more eco-friendly than the existing ones.

The typical cases are products used for railway infrastructure and vehicles. This includes a Catenary wire / Messenger wire that excludes hazardous materials such as cadmium and uses eco-friendly bronze alloy, a Low-smoke generating and Lowtoxic coated materials that reduce smokes and toxic materials generated from cables in fires, and a power and signal cable that shield the influence of electromagnetic fields that are harmful to humans by applying electromagnetically shielding technology to high voltage cables for railways. We enhanced technological partnerships with global customers through the development of Eco-Value Added Products and realized the implementation of the feeder lines, power distribution, and signal infrastructure systems of domestic urban rails as well as global projects in Peru, Singapore, etc..



Eco-New

Products

Eco-Value

Added

Products

Products Increasing Economic and Social Value by Realizing Environmental Value

Products that contribute to implementing green infrastructure and creating a future driving engine for our society by applying to green technology and green industry

Our Eco-New Products will be leading a new business area, through a continuous R&D for green products of the field of technology and industry that can serve as future growth engines such as renewable energy and green industries. As a typical Eco-New Product case, a superconducting cable is referred as a green transmission technology that is able to deliver large quantities of energy with minimal electrical loss, by using superconductors instead of copper conductors. We successfully developed 22.9kV 50MVA superconducting cables that are able to replace 5 existing distribution cables with one superconducting cable, since we started developing them in 2000 as next generation technology in the field of transmission and distribution. This cable can also reduce electricity loss by more than 20% compared to existing ones.

Halogen-free Cable Products for High Temperatures







Signal Cable for High-speed Trains

- Non use of hazardous substances as raw materials • Exclusion of the Cu / Cd alloys conventionally used in
- messenger wires and use of the eco-friendly bronze alloys



22.9kV Superconducting Cable System

- 22.9kV 50MVA superconducting cable
- Replacement of five distribution cables with one cable
- Cut down energy loss by more than 20%

Fire Resistant Busduct System



- A halogen free product that replace 125°C Br XLPE
- Non-irradiated type with enhanced grade for heat resistance to 150°C

150°C High-voltage and High-flexibility HF

- A nontoxic and halogen-free material used as insulation / sheath materials for high-voltage
- High heat resistance that can be used at 150°C



Fire-resistant Mini-way

- A Busduct that satisfies the IEC60331 standard for fire-resistant properties
- Non-use of hazardous materials such as halogen

Cable System for Railway



Catenary Wire / Messenger Wire

- Application of the materials that reduce smoke and hazardous materials generated in fire
- Design for reducing influence of electromagnetic fields

Superconducting Cables





154kV Superconducting Cable System

- Replacement of four transmission cables with one cable
- Reduced construction costs when installing a new transmission line
- low electricity loss that does not create electrons

Topic

Risk Management

Due to the ever-changing external environment, uncertainty by creative and innovative initiatives including new businesses development, and potential risk factors possibly arising from various relationships with stakeholders, It is expected that risks that may have significant influence on our business would be diversifying and growing in scale. To effectively and timely manage risks based on accurate recognition of risk factors, we have implemented the integrated management system, and set up principles and response system in preparation for any unexpected crises.



Risk Management System

We establish a countermeasure categorized by situational variables : Business Risks relating to market change and relationships with stakeholders, Financial Risks having a direct connection with corporate financial performance such as raw material price, foreign exchange fluctuation and liquidity and Compliance and Ethical Risks arising from non compliance with principles. In addition, we are preparing for unexpected disaster risks. Through these efforts, we support our organization to create stable business performance.

Our Approach

Under the vision for enhancing corporate values by proactively responding to risk factors that may cause negative effects to corporate management, we have a risk management system in place throughout the organization to identify and analyze potential risks as well as to take a monitoring measures with the corporate Risk Management Council in the center. Especially in 2012, we established a Risk Monitoring System by improving, strengthening and integrating risk management activities, which used to be conducted by individual team. A risk management system is a program for managing potential risk factors that impact on business performance as Key Risk Indicators (KRIs), according to their possibility and influences.

Risk Monitoring System



Risk Management Activities

Business Risk |||

- Market trend_We analyze and share information on economic environment, changes in customer needs, and competitors' performance.
- Information security_ We protect corporate information through a security management of in-house information (document security, external storage media certification), prevention of intrusion and hacking (encryption communication system and installation of firewall), and customer information protection (external consulting and corporate policy establishment for customer information management) based on the domestic and international standards.

Financial Risk |||

- Change in raw material price_ To minimize risks related to changes of purchasing prices of raw materials and fluctuation of product sales by market prices of raw materials, we hedge against the risks by entering into future or forward contracts of the raw materials such as copper, aluminum, and lead.
- Liquidity_ We monitor corporate cash flows and liquidity plan and retain short-term deposits and committed lines considered proper to deal with liquidity risks from the monetary stringency.
- Change in foreign exchange_ We reduce exposure to influence of foreign exchange fluctuation by diversifying types of foreign currencies, matching the inflow and the outflow of each currency or receipts and payment timing and expediting (leading) or delaying (lagging) receipts and payments of foreign currency, in response to exchange rate changes. We also hedge

Ionitoring	Response Activities
Global Management Transaction Compliance Manufacturing Shipping Quality Sales	Risk Establishment of Countermeasures Execution
Finance Investment HR Marketing	Risk Management Council

against the risks related to volatility of foreign exchange rates with derivative financial instrument such as forward exchange contracts. Any foreign exchange transactions for the speculative purpose are strictly banned.

• Change in interest rates_ We proactively manage risk involved in change of interest costs through a redemption of high-interest borrowings and interest-rate swap contracts.

Compliance & Ethical Risk |||

• Compliance & ethical management_ To identify risks of illegal acts and corruption, we conduct regular and irregular on-site inspections. Also, we are analyzing and monitoring non-compliance in transaction and payment through the ERP system. We strive to enhance compliance and ethical awareness through the training for employees (please refer to Fair Competition and Ethics Management, P.70~71).

Disaster Risk

- Environment safety management We conduct an on-site inspection quarterly to prevent safety accidents at workplaces and construction sites, and explore potential risks through the self-safety diagnosis monthly.
- Contingency planning_ To minimize damage from disasters or accidents and rapidly renew core business tasks, we perform the business continuity management activities by organizing management teams and their responsibilities. We are providing a training program in preparation for emergency and distributing an action guideline for employees. Currently, we are revising the corporate management rules.

Fair Competition

One of our responsibilities as a corporate citizen is to satisfy customers and to make a reliable market through fair competition. We plan to make 'fair trade practice' one of our competitiveness, going beyond compliance with market orders. For this end, since we introduced a Self-Compliance Program for Fair Trade (CP : Compliance Program) in December 2010, we have carried out every effort for reinforcing a fair trade culture. Going forward, we will support such fair competition and compliance culture to take deeply roots in entire organization.

Our Approach

Under the management policy that all business activities are based on the compliance with rules, we have implemented and operated the management system based on the CP. The CHO, the head of the corporate support group, has been appointed as the Self-Compliance Manager, and our fair trade self compliance management organization consists of the Self Compliance Secretariat as well as Self-Compliance Staffs from the Support, Sales, Production and Purchasing Division. We are currently engaged in a wide variety of activities to promote fair trade, such as reviewing the key issues of CP, monitoring and diagnosing the current level of fair trade compliance, and consulting on business activities related to fair trade. In particular, our CEO emphasizes fair trade by asking for employee's compliance and declaring a severe disciplinary measures against unfair acts. Our fair trade policy is shared with all employees through our newsletters and intranet.





Fair Trade Compliance Activities

Compliance Commitment and Fair Trade Training ||| To recognize the importance of fair trade and encourage all employees to make pledge for practices, we have had all new employees submit fair trade and compliance pledges and take a fair trade training as an essential training course since 2012. We also provided special lectures by inviting professionals advanced education programs for divisions whose risks relating to fair trade are relatively high, including purchase or sales teams.

Monitoring |||

- Internal diagnosis_ We check and confirm the present status of the Self-Compliance level of employees semi-annually. We also conducted self-diagnosis for the company practices of supplier registration, ordering, inspection, payment and price decision to 24 teams involving subcontract including purchase, planning and guality control in July 2012.
- Legal support_ We check for non-compliance with fair trade in transactions through a review of all contracts and legal counseling.

Post Management III Based on the diagnosis result of subcontracts, we improved the work processes by taking corrective actions, under which we conduct new distribution of the classification table of subcontracts, prohibition of oral ordering, mandatory preparation of a agreements at setoff, payment of deferred interest if payment is delayed, and regular monitoring of price decision practices, in order to improve items with high risks of fair trade.

Future Plan

Through the expansion and enhancement of the CP program, we intend to reinforce fair trade as part of our corporate culture. While reflecting the amendment of laws and various cases on our training courses, we will revise the Self-Compliance manuals and promote regular diagnosis activities to check risks of non-compliance due to wrong understandings. We also will analyze each country's regulation to prevent non-compliance risks of foreign subsidiaries and lay a firm foundation on fair trade in all workplaces through supporting activities including advice.

Compliance and Ethics Management

LSpartnership as LS Group's management philosophy sets 'integrity' which entails honesty and rationality as our most important core value, thereby so to strengthen our commitment to ethical management and define it as the basic element of creating desirable outcomes. Based on this, we will reinforce our ethical management infrastructure and help ethical management take root so that all employees can take into practice it in their daily lives.

Our Approach

Based on our CEO's strong commitment to ethical management, we have set the vision of 'Establishing a global level of ethics management culture' and carried out the detailed strategies accordingly. In 2006, we laid the foundation for ethical management by revising our code of ethics, launching the Ethics Secretariat, and newly arranging programs and regulations. Since then, we have gradually conducted PR and educational activities so that employees are encouraged to voluntarily practice ethics management. In 2013, we will execute the evaluation of the company's ethical level, as well as share ethics PR materials, aimed at expanding our ethics management system into the domestic subsidiaries.

Phase1

Implement

commitment

training

Ethics Management Organization-Ethics Secretariat

We have the Ethics Secretariat in the Management Diagnosis Team directly under CEO and pursue ethical management such as establishment and implementation of ethics management, and operation of an ethics management program. While preventing non-ethical acts in advance by raising awareness of ethics management and monitoring the present status of practices, the Ethics Secretariat prevents recurrence by solving any ethics-related problems and analyzing causes.

Expansion of Ethics Awareness

Newsletter III Since 2006, we have posted a variety of articles on ethics management including a corporate ethics management, our code of conducts, practical guidelines, and case studies on the intranet.

Training ||| We require newly-hired employees to complete a corporate ethics training courses as a mandatory course and also conduct ethics trainings for expatriates who will be posted at overseas branches.

Statement of ethical commitment ||| All employees must pledge ethics practice, promising that they will comply with corporate ethics rules when they join us. Suppliers must submit ethics practice pledges at their registration, as well.

Letter to Suppliers for Cooperation ||| We send a Letter of Corporation with CEO's signature that asks suppliers for cooperating with our antibribery campaign, reporting violation case of the code of ethics by our employees, and joining in the fair trade system, in holidays such as lunar Calendar New Year's day and thanks giving day.

Ethical Diagnosis ||| To prevent a non-ethical act and any noncompliance with in-house rules, we conduct regular and irregular on-site diagnosis and check-ups of any problems regarding payment such as inappropriate transaction activities through a risk monitoring system. In 2012, we carried out the diagnosis in the first and second half of the year and took a disciplinary measure to violators as prescribed by corporate policy.



Ethics Management Roadmap



Phase3 Promote as global culture Global code of ethics Manual preparation /distribution

Settlement of Ethical Conflicts

Cyber Reporting Channel III A witness of a non-ethical act can report non-compliance anonymously by Cyber Reporting Channel on the website of ethics management. The Ethics Secretariat makes an investigation into facts and takes a countermeasure regarding reported matters. In 2012, a total of 14 reports were made, all of which have been handled according to regulations (Reporting Process Rate : 100%).

Clean Company Program ||| We implement a clean corporate culture through a self-reporting system on acceptance of financial favors from 3rd parties. Through the clean company system, we donate items, which could not be returned, to the social welfare facility.

Confidentiality ||| We ensure confidentiality of personal information of reporters and reporting information. We also protect reporters from getting any disadvantages by reporting.

Interview

⁶Considering that collusion, corruption, unfair acts, and regulatory violations cause the company to face crises beyond risks, we will take severe actions regardless of the importance of such matters. ??

- CEO Ja-Eun Koo From the 2013 New Year message
Sustainability Management

Membership in Industry & Business Associations

1	Anyang Chamber of Commerce	16	Korea HRD Center
2	Anyang Green Technology Council	17	Korea Industrial Safety Association
3	Anyang Reserve Forces Officers Council	18	Korea Industrial Technology Association (KOITA)
4	CIGRE Study Committee-Overhead Lines	19	Korea Information & Communication Contractors Association
5	CIGRE (Conseil International des Grands Reseaux Electriques) Korea	20	Korea International Trade Association
6	Gyenggi Province Conference of Environmental Engineers	21	Korea IT Leaders Forum
7	International Cable makers Federation	22	Korea Productivity Center (KPC)
8	International Conference on Electricity Distribution (CIRED) KOREA	23	Korea Software Industry Association
9	Korea CFO Association	24	Korea Standard Association
10	Korea Electric Wire Industry Cooperative	25	Korean electric Association
11	Korea Electrical Manufacturers Association	26	Korean Institute of Electrical Engineers
12	Korea Emergency Planning Council	27	Korean Personnel Improvement Association (Education and training)
13	Korea Employers Federation	28	Korean Personnel Improvement Association (KPI Monthly Meeting)
14	Korea Fair Competition Federation (KFCF)	29	SERI CEO
15	Korea Fire Safety Association	30	UN Global Compact

ISO 26000 Self-certification Result

We diagnose ISO 26000, the international standard on social responsibility, and use it as the material for checking and improving the present status of the company. By using a CSR Implementation Evaluation Checklist developed by the Korea Standards Association (KSA) based on ISO 26000, we checked the present status of management and execution of seven core subjects. The result is as shown below.



As an evaluation result, we have verified that a regular review of the process has been carried out through activities such as the publication of the sustainability report and the establishment of 'sustainability management strategies and implementation roadmaps'. In addition, we recognized the importance of the participation of stakeholders. In terms of setting a top priority on practicable challenges, we were evaluated to need relatively active improvements in systematical execution capabilities. With regard to core subjects, the implementation level was analyzed to be good. To take one step further in the social responsibility activities, we will make more efforts to contribute to the development of the local community and the active improvement of the environment.

Appendix

- Page **86.** GRI Guideline
- Page **90.** Independent Assurance Statement
- Page **92.** UN Global Compact
- Page **93.** GRI Application Level Check

^{Topic} 01 Finance & Creativity / Innovation

Appendix

In USD thousand

Statement of Financial Position

	LS C	able & System Ltd.		LS Cable & System Ltd. & Subsidiaries			
	2010	2011	2012	2010	2011	2012	
Current assets	1,314,154	1,593,219	1,463,178	2,615,289	3,023,466	2,743,323	
Cash and cash equivalents	26,505	26,599	164,313	98,453	110,717	267,433	
Financial deposits	141,257	311,163	51,883	163,586	317,815	63,322	
Trade receivables	684,082	751,236	724,557	1,219,001	1,380,232	1,267,733	
Other receivables	25,575	29,665	31,395	32,737	47,620	40,145	
Available-for-sale financial assets	-	-	-	995	1,031	1,119	
Derivative assets	71,151	16,998	18,280	80,086	18,006	20,115	
Firm commitment assets	25,649	32,957	4,996	25,649	32,957	4,996	
Inventories	267,252	239,984	246,911	873,111	880,129	794,418	
Other current assets	72,682	184,617	220,843	121,670	234,959	284,042	
Non-current assets held for sale		9,104	509,439	2,426	11,602	511,760	
Non-current assets	1,815,708	1,850,655	1,340,331	2,408,105	2,459,522	1,905,375	
Property, plant and equipment	741,807	732,738	502,756	1,329,540	1,375,097	1,186,269	
Intangible assets	40,886	36,112	38,696	607,728	595,473	549,053	
Investment property	327,449	326,166	20,449	329,768	328,531	22,608	
Financial deposits	16	20	20	36	66	467	
Trade receivables	83	28,773	44,030	83	28,773	44,273	
Other receivables	23,701	24,037	24,070	33,141	31,367	31,344	
Available-for-sale financial assets	15,472	15,970	4,755	16,336	16,893	6,935	
Derivative assets	32,187	30,103	16,567	32,187	31,023	16,697	
Firm commitment assets	148	3,517	748	148	3,517	748	
Investments in subsidiaries	631,450	651,150	686,673	1,972	1,957	1,802	
Other non-current assets	2,510	2,070	1,568	57,167	37,169	32,951	
Total assets	3,129,862	3,452,978	3,312,947	5,025,819	5,494,590	5,160,458	
Current liabilities	1,448,669	1,503,628	1,472,004	2,536,856	2,531,155	2,534,212	
Trade payables	553,890	606,523	574,098	733,928	1,050,785	936,274	
Borrowings	564,053	626,982	593,754	1,316,969	1,052,730	1,152,779	
Derivative liabilities	28,186	39,698	11,371	34,053	44,101	12,673	
Firm commitment liabilities	65,360	9,940	12,595	65,360	9,940	12,595	
Other payables	122,759	147,644	126,695	233,066	240,377	218,465	
Current income tax liabilities	13,167	,	4,175	14,454	913	7,110	
Other current liabilities	101,254	72,840	149,317	139,026	119,896	185,304	
Non-current liabilities	896,778	1,225,115	1,094,101	1,695,730	2,369,529	2,103,735	
Borrowings	844,998	1,181,694	1,034,540	1,367,532	2,058,169	1,775,141	
Derivative liabilities	878	3,948	1,477	1,247	4,372	2,169	
Firm commitment liabilities	1,229	576	2,918	1,229	576	2,918	
Defined benefit liabilities	11,161	9,045	9,010	89,248	88,120	101,015	
Deferred income tax liabilities	38,237	24,143	27,278	228,787	212,904	199,079	
Other payables	275	5,709	2,912	2,778	475	537	
Provisions	215	5,705	15,965	2,662	1,595	18,255	
Other non-current liabilities	_	_	0	2,248	3,318	4,621	
Total liabilities	2,345,447	2,728,743	2,566,105	4,232,585	4,900,684	4,637,947	
Capital stock	107,366	107,366	107,366	107,366	107,366	107,366	
Share premium	717,196	695,428	612,376	717,196	695,428	612,376	
Accumulated other comprehensive income	1,651	4,493	430	10,874	9,699	(15,346	
Other capital components	0	4,495	450	8,027	(294)	(13,340)	
Retained earnings (Accumulated deficit)	(41,799)	(83,052)	26,670	(119,657)	(294)	(4,844)	
	(+1,/32)	(20,02)	20,070	69,427	43,839	46,701	
Non-controlling interest	-	-	-	09,427	40,000	40,701	

Income Statement

						in 050 thousan
	LS Cable & System Ltd.			LS Cable & System Ltd. & Subsidiaries		
	2010	2011	2012	2010	2011	2012
Sales	3,611,582	4,479,784	3,810,435	7,261,135	8,256,571	7,390,746
Costof sales	3,285,011	4,243,118	3,515,418	6,552,071	7,702,655	6,775,570
Gross profit	326,571	236,666	295,017	709,065	553,916	615,176
Selling and administrative expenses	197,046	228,764	227,936	479,051	504,976	511,574
Operating profit	129,525	7,902	67,082	230,014	48,940	103,602
Other income	166,036	272,352	181,624	233,928	348,122	223,154
Other expenses	155,404	294,639	147,505	226,145	384,495	195,239
Financial income	10,912	16,331	16,115	7,852	9,295	15,387
Financial expenses	84,174	86,537	87,122	152,477	158,394	154,352
Other non-operating income	4,525	10,747	1,191	(27,834)	(17,005)	(9,450)
Profit (loss) before income tax	71,421	(73,845)	31,385	65,338	(153,537)	(16,898)
Income tax expense (benefit)	11,678	(12,772)	9,627	14,184	7,012	17,620
Profit (loss) for the year	59,743	(61,073)	21,759	51,154	(160,549)	(34,518)

Cash Flows

	LS C	able & System Ltd	l	LS Cable & System Ltd. & Subsidiaries		
	2010	2011	2012	2010	2011	2012
Cash flows from operating activities	(38,059)	(169,035)	86,254	(265,209)	(302,070)	163,705
Cash used in operations	29,387	(83,104)	162,905	(117,445)	(141,121)	311,108
Interest received	9,976	5,178	5,742	11,472	8,048	10,152
Dividends received	4,723	7,714	5,302	281	347	163
Interest paid	(86,035)	(79,706)	(85,107)	(150,787)	(145,106)	(150,144)
Income tax paid	3,890	(19,116)	(2,588)	(8,730)	(24,238)	(7,574)
Cash flowsfrom investing activities	204,209	(222,147)	223,333	122,617	(331,742)	133,595
Decrease in financia Ideposits	107,455	-	259,281	103,195	-	255,573
Decrease in other receivables	1	1,025	2,725	368	-	-
Proceeds from disposal of assets held-for-sale	-	-	10,246	-	-	10,781
Proceeds from disposal of property, plant and equipment	7,734	21,595	32,061	10,705	26,435	34,147
Proceeds from disposal of intangible assets	129	257	496	131	257	548
Proceeds from disposal of available-for-sale securities	-	1,573	10,331	-	1,573	10,331
Proceeds from disposal of investments in subsidiaries	-	9,537	-	-	-	-
Proceeds from disposal of other non-current assets	160	84	-	1,198	931	209
Decrease (increase) in derivatives	198,023	8,605	(4,803)	199,761	2,917	(7,090)
Increase in financial deposits-	-	(166,530)	-	(2)	(150,886)	-
Increase in other receivables	(1,217)	(2,468)	(3,788)	-	(1,094)	(1,037)
Acquisition of available-for-sale financial assets	(2,911)	(97)	-	(4,289)	(156)	(4)
Acquisition of investments in subsidiaries	(13,177)	(23,833)	(34,346)	-	-	-
Acquisition of property, plant and equipment	(92,460)	(71,426)	(48,553)	(182,127)	(189,273)	(163,583)
Acquisition of intangible assets	(807)	(469)	(316)	(13,350)	(5,239)	(4,522)
Cash flows from financing activities	(149,010)	391,377	(171,611)	207,274	650,450	(134,251)
Proceeds from borrowings	-	49,252	140,432	176,477	336,761	168,940
Proceeds from issuance of debentures	254,785	606,853	186,724	282,683	910,634	186,724
Repayments of borrowings	(154,999)	(65,370)	(180,702)	-	(372,567)	(167,504)
Redemption of debentures	(405,520)	(197,357)	(317,431)	(406,920)	(202,025)	(317,431)
Others	(4,326)	(2,001)	(635)	(4,276)	(3,166)	(634)
Net cash provided by (usedin) financing activities	17,139	195	137,976	64,682	16,638	163,049
Net increase in cash and cash equivalents	9,419	26,505	26,599	42,869	98,453	110,717
Exchange losses on cash and cash equivalents	(53)	(102)	(261)	(9,098)	(4,374)	(6,333)
Cash and cash equivalents at he end of year	26,505	26,599	164,313	98,453	110,717	267,433

In USD thousand

In USD thousand

In USD thousand

In USD thousand

Unit : case

Topic 02 Customers

Distribution of Economic Value

We create value through partnership with stakeholders and contribute to increasing values of the stakeholders. The value distributed to each stakeholder is as follows.

	and interests. * Interests, Dividends	
Economic Value Created	Employees 173,473(4.4%)	 Support self-realization and stabilization of households of employees through wages, retirement pension, welfare, and training. * Wages, Severance payment, Welfare, Program
3,929,119 • Sales : 3,810,435 • Non-operating Income : 118,684	9 Suppliers • Contribute to * Raw material pu	• Contribute to the growth of suppliers through fair trade and supports. * Raw material purchase, Repair & maintenance, Transportation expenses
	Local Communities 22,300 (0.6%)	 As a corporate citizen, pay taxes to central and local governments where work sites are located and perform the sharing activities of local communities. * Taxes, social contributions
In USD thousand	Other 204,527(5.2%)	Internal reserves for investment in future. * Amortization and Retained earnings, etc.

Retirement Pension System

Since January 1, 2011, we have enforced the retirement pension system covering all employees in the DC (Defined Contribution) plan and the DB (Defined Benefit) plan. The DB plan pays a specified benefit on retirement based on the service period. In the DC plan, employees receive contributions and investment returns generated by personally operating pension funds accumulated in a financial institution every year. After subscribing initially to the DB plan, they can convert the plan to the DC plan by application every quarter. To help employee better understand the system, we provide an on-site presentation and information materials via intranet. As of the end of 2012, we deposit severances by selecting seven financial institutions such as banks, securities firms, and insurance companies.

Government Grants

		LS Cable & System			LS Cable &	System Ltd. & Subsi	diaries
		2010	2011	2012	2010	2011	2012
	Land	13,205.10	13,206.00	13,206.00	15,350.60	15,350.60	15,350.60
T. 11 A. 1	Building	-	-	-	2,422.70	2,296.70	2,169.70
langible Assets	Machinery	427.6	396.8	366	451.9	416.4	380.9
	Other	-	-	-	8.4	3.7	1.9
Intangible Assets	R&D	1,430.30	1,393.90	1,196.90	1,430.30	1,393.90	1,196.90

Investments

 LS Cable & System
 LS Cable & System Ltd. & Substantiation

 2010
 2011
 2012
 2010
 2011
 2012

 R&D Investment
 33,310
 33,960
 34,217
 42,310
 42,290
 43,785

New Product Sales

In USD thousand	Patent	App	lications
-----------------	--------	-----	-----------

	2010	2011	2012		2010	2011	2012
Growth-type	327,657	458,235	410,566	Domestic	140	169	151
Alternative-type	561,643	532,855	546,563	International	38	17	41

Communication with Customers

We arrange a place for introducing products and exchanging opinions with customers by inviting customers. Through customer seminars, we help customers to get information on products and discuss cooperation plans by sharing product specifications and applied technologies. In 2012, 20 seminars were held.

Date	Seminar Name	Date	Seminar Name
19-Jan-12	Protection and construction of submarine cables relating to offshore wind plants	29-Aug-12	Adhesive for LED packaging
03-Feb-12	Optimization of process for dual cure resins used in in-mold decoration (IMD) foil	30-Aug-12	Seminar for EPDM rubber technology
03-Feb-12	Method of graphite exfoliation by using supercritical carbon dioxide	31-Aug-12	Technology development of wireless power transmission/charging system and market analysis for product commercialization
07-Feb-12	Method for examining destruction and damage causes of materials	03-Sep-12	Introduction of characteristics of EPR rubber resin
22-Mar-12	Development of hybrid wires & cables by using super fiber	25-Oct-12	MV cable insulation diagnosis
03-Apr-12	HVDC conversion technology trend and theory	25-Oct-12	Characteristics and applications of graphite powder
18-Jun-12	Introduction of features of CR rubber resin	31-Oct-12	Seminar on polymer processing
22-Jun-12	2012 Overhead Line System Symposium	22-Nov-12	Seminar on offshore wind plant between Korea & Holland
19-Jul-12	Compounding facility-related technology	04-Dec-12	Seminar on DMA & TAG-IR
19-Jul-12	Rubber compound material and mixed technology	08-Dec-12	Seminar on a busduct constructor

Accurate Information

At the request of a customer, we provide information on bidding, main functions, specifications, structures, electric and technical characteristics, cable laying, and conditions for use. We also conduct pre-reviews to prevent unclear information or misleading phrases from being used in marketing activities, including press releases, advertising, promotion, as well as product information materials such as product catalogues and brochures. We comply with the regulations on marketing, communication, and product provision, and there was no case of violation in 2012.

Protection of Customer Information

Focusing on the prevention of information leakage through our internal security system, we had protected customer information. In order to protect thoroughly customer information, even in term of collection and management, in 2012, we made a diagnosis of the level of information protection. From 2013, we implement and operate the system for the protection of the information of stakeholders such as customers, employees, and suppliers. We recognize the duty to thoroughly protect and manage information that is collected and acquired with mutual consent at marketing, trading, hiring and purchasing. We use, dispose, and handle the information in compliance with our procedures.

Product Liability

When we become aware of defects of the products relating to quality and safety, we publicly operate the recall system for exchanging, refunding, and repairing defected products and minimize customer damage caused by product defects through Product Liability Insurance.

Survey Result

We conduct the survey and identify the customer satisfaction level on our products and services. In the future, we will expand the scope of the survey and listen to the opinions of customers in the future.

- Survey Period : Nov. 21, 2012 to Dec. 15, 2012
- Target : Totally 43 respondents (14 domestic customers & 29 overseas custor
- Survey Method : Web-based survey through e-mails

• Method : Converting to 100 scale with 40 points as the lowest

6-Sigma Projects for Customers' Needs

We address customers opinions collected through VOB and VOP have great influence over businesses and require improvements in delivery and product performance, through 6-Sigma projects.

	Delivery	87.14	Solving customer complaints	85.27
omers)	Information accuracy	89.92	Product reliability	88.57
	Quality	90.32	Product technology	89.46
	Service	85.24	Green product development	87.94

				Unit : case
		2010	2011	2012
DC, which	Product improvement	26	31	19
in quality,	Product reliability	17	21	15
1 57	Product development	14	22	12

Topic 03 Suppliers

Appendix

^{Topic} 04 Local Communities

Sustainable Supply Chain Establishment

The sustainable supply chain is built on sustainable relations between our suppliers. We identify the most critical factors for maintaining sustainable relations, including product quality, delivery, compliance, environment, and human rights, and aim to manage them through cooperation. To achieve this goal, we take a phased approach in consideration of the characteristics and realistic conditions of suppliers and lay the foundation of sustainability management first.

Sustainability Management Monitoring

To identify the status of sustainability management of suppliers and support suitable implementation, we monitor 36 member suppliers of the Shared Growth Council and conducted self-diagnoses, on-site inspections and improvement plan implementations. In 2012, we conducted on-site inspections for 8 suppliers who failed to meet our criteria as a result of the self-diagnoses.

As a result of the on-site inspection, three suppliers were excellent, two were good, and three needed more improvement. By area, customer service and social contribution were generally excellent, but the ethical management was to be in need of improvement. In 2013, we will spread our ethics management system to promote ethics management more systematically. By suggesting the improvement direction, supporting education and monitoring, suppliers which are generally good performing but have less performing areas as well as those whose performance is overly insufficient, we support them to practice sustainable management. In particular, we plan to support suppliers to promote ethics management more systematically that appeared to show poor performances as the result of monitoring by spreading our ethics management system.

Assessment I	tem	I	Detail			
Sustainability management visio		ives' commitment, sti jement, etc.	ategy establishme	ent, risk		
Compliance		iance with internation nes, etc.	nal standards, laws	s and regulations		
Ethics manageme	nt Humai	n rights, ethics, transp	arent managemei	nt, etc.		
Contribution to lo communities	ical HR rec	HR recruitment & supplier selection from local community, e				
Working environn (labor)		ng environment, hum jement, etc.	an rights, ethics, s	anitation		
Customer service	Deliver	y, quality, cooperation	n, supply chain ma	nagement, etc.		
Environmental responsibility		ce, hazard managem ure, etc.	ent, environmenta	al information		
All	Self-diagnosis & doc. Check	Self-diagnosis & on-site inspection	Monitoring improvements	No responses		
36 companies	8 companies	8 companies	10 companies	10 companies		



Eco-friendly Supply Chain Management

We have expanded a green purchasing system and executed 'Green Cooperator (GC)' as our own green supplier certificate since 2011 under the goal of expanding and supporting the green management of suppliers. GC certifies suppliers which supply eco-friendly raw and sub materials through assessment. We supply products which do not contain harmful substances by prohibiting any harmful substances from being supplied to us and promote the implementation of environment management system for suppliers.

In 2012, we conducted training for implementing the green purchasing system during the period from April to June and conducted CG for 21 suppliers from October. GC evaluates the ability to supply sustainable eco-friendly materials with 12 items in three systems (operation, management and test), and leads suppliers to support substantial execution by differentially applying the green purchasing standards, depending on the scale and transactions of suppliers.

Since 2013, we will expand GC to global suppliers by enhancing convenience and fairness of GC in connection with the environmentally harmful substance management IT system.

Steps of evaluating certification of green suppliers

Step 1 Environmentally hazardous substance control system	Step 2 Environmentally hazardous substance management System	Step 3 Environmentally hazardous substance inspection system
 Policies and strategies Operation standards Control criteria Education & training 	 Material selection management Supplier management Manufacturing process controls Shipment control trainingt 	 Material inspection management Product inspection management Management of the suppliers who fail to satisfy our criteria Change management

Salary - Odd Sum Fund

In USD thousand					
	2010	2011	2012		
Support for Neglected group	38.1	39.2	39.2		
The Bono Welfare Center Support	5.6	7.5	7.2		
Total	43.7	46.7	46.4		

Overseas Volunteering Activities of University Students

To improve the overseas educational environment, and encourage global citizen mindsets in young people that will lead society in the future, we give university students the chance to participate in overseas volunteer activities. The volunteer group was form in 2007. Since 2010, the group has been operated jointly with LG Group so that Korean students can share love and care. LS Overseas Volunteer Group of University Students consists of college students selected through public gathering and professionals from KOPION, a jointly controlled NGO. Depending on the goal of the program, which helps them practice kindness, care, and understanding as well as learn, students go through two-month professional training and pre-preparation courses. LS Group will continuously support these activities.

9th Volunteer Group in 2012 - India



• Country : India

- Area : Mohabart Deli
- Period : Feb. 9, 2012 to Feb. 20, 2012 (12 days)
- Sponsored by LS Group, Jointly with KOPION

Construction

Conducted the water-proofing work for the roof at Mohabart School. Thanks to the work, children could study without worrying about raining.

Wall-painting

At the site where the school was newly built, wall-painting was carried out for the internal walls of all eight schools so that children could jump, play, and study in beautifully painted schools

Education

As short-term teachers, we taught what knowledge we knew to students. We hope children will grow to become talented people without losing their passion for learning.

Cultural Interchange

We had a great time making friends with the children and local residents and enjoying cultural exchange through physical competitions, dancing, Taekwondo, and Samulnori performance.



Appendix

Linit · porcon

Unit : person

Number of Employees

Classification		2010	2011	2012
	Head Office	568	554	574
	Anyang	362	189	181
Duworkolaca	Lab	204	202	199
By workplace	Gumi/Indong	1,001	1,212	1215
	Donghae	218	225	245
	Overseas	59	57	60
	Office position	1,249	1,287	1,232
During all surgering	expatriate	59	57	60
By work group	Technical position	920	916	938
	Contract-based employees	184	179	244
Total		2,412	2,439	2,474*
Retirement Rate		7.8%	6.4%	7.9%

* The season the number of members reported here is different from 2,339 persons in the business report : This report contains 30 executives and 76 dispatched workers who are reported separately, 27 expatriates whose wages are provided from the subsidiaries they are belonging to, and 2 persons who are laid off whose wages are temporarily suspended.

No. of Employees of Subsidiaries



Local Talents Hired

	Classification	2010	2011	2012
	Anyang	36	21	29
Area	Gumi / Indong	38	17	27
	Donghae	32	7	11
Total		106	45	97
In percentage		50%	33%	46%

Employees with Handicaps				
Classification	2010	2011	2012	
Number of employees (ratio)	25 (1.1%)	29 (1.2%)	30 (1.2%)	

Wage Levels of New Employees

Classification	2010	2011	2012
Legal Minimum Houry Wage (monthly)	3.8 (802.0)	4.0 (842.9)	4.3 (893.7)
Wage of new employee (ratio to minimum wage)	278%	290%	282%

Training of Employees

Classification	2010	2011	2012
Average Training Time per Capita (hours)	80.5	70.6	101.1
Training Fee (in USD thousand)	4,106	3,792	4,063

Communication with Employees for Mutual Trust

We provide corporate management information to employees and actively listen to them through various channels.

Category	Attendants	Frequency	Description
Monthly meeting	All employees	Monthly	Share business and performance information.
Functional organization meeting	All employees	Monthly	Share business and performance information.
Participation & Cooperation Promotion Council	Labor Union : Labor union leader and 7 others Management : CEO and 7 others	Quarterly	Discuss present management issues Discuss issues related to employees
Labor-Management Council	Labor Union : Union Secretary General & 3 others Management : Labor relations planning team manager & 3 others	Quarterly	Discuss issues related to employees
Employees Association	Employees	Monthly	Address grievances, improve HR system, hold various events including discussions to improve corporate systems and policies, workshops, etc
Talk with CEO	Employees selected by topic	Monthly	Share opinions with CEO by subject

Labor-Management Relationship

We build labor-management culture based on mutual trusts and communication. We guarantee the freedom of the labor union's activities based on the international principles on human rights and domestic laws. The management group and the labor union promise to respect and cooperate with each other to improve working conditions and facilitate corporate development. By building a communication channel, both share main issues regarding business performance and working conditions and enact efforts to maintain job stability while preventing the working conditions from being worsened by discussing matters on any changes in working conditions. In 1976, our labor union was launched as the Anyang branch of GoldStar in the National Union of Metalworkers. It is now the 18th union with 963 members. 'Those who work at LS Cable & System's work sites' in technical positions are eligible for the union members and have a right to freely join and withdraw from the union.

Welfare Fund Disbursement

		2010	2011	2012
In Income Miniferra Frond	Beneficiaries (person)	227	259	330
In-house Welfare Fund	Disbursement (in USD thousand)	341.1	348.6	535.6
Scholarship	Beneficiaries (person)	637	610	550
	Disbursement (in USD thousand)	3,119.30	3,111.50	2,953.60

Cofe Workplaces, Dick Idintification & Improvement

Sate workplaces : Risk idintification & improvement					
Biz Part	Gumi	Indong	Donghae	Anyang	Total
Improvement Cases	1,579	813	510	50	2,952

Occupational Accident Count & Ratio

c	ategory	2010	2011	2012
	Gumi	4	1	2
	Indong	3	3	1
No. of accidents	Anyang	1	0	0
	Donghae	1	0	0
	Total	9	4	3
Company accident rati	io	0.54%	0.27%	0.23%
Industrial accident rate	e by business type	0.61%	0.52%	(Notified in second half)

Collective Employment Agreement Article 20

The company shall try as much as possible to ensure job security of the members and discuss matters that have an important effect on job security (new HRM system, wages, benefits, organizational restructuring and downsizing, etc.) via the Participation & Cooperation Promotion Council in each workplace before implementation.

06 Green Management

Appendix

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Environment Management System Certification

Cate	gory	Domestic Workplace	Domestic Subsidiaries	Overseas Subsidiaries
Certification	ISO14001	Gumi, Indong, Anyang, Donghae	JS Cable, GCI, Pountek	LSCW, LSCI, LS-VINA, LSHQ, LSCM
Government Agreement	Green Company	Gumi, Indong, Donghae	-	-

Environment Investments & Costs

Category	2010	2011	2012
Environment investment costs*	1,042.90	1,376.20	708.6
Environment maintenance costs**	1,619.80	2,398.50	2,715.00
Investments into energy saving***	1,343.50	934.6	93.4
Eco-friendly R&D costs****	14,191.00	18,112.20	30,249.30

In USD thousand

Environment investment costs : Costs of investment in environment facilities, eco-friendly processes, and safe healthcare facilities Environment maintenance costs : Environment safety personnel costs, healthcare management costs, employee training costs, and environment

safety facility maintenance costs *** Investments in energy saving : Facility investment costs for saving energy

**** Eco-friendly R&D costs : Eco-friendly product costs

Efforts to Use and Reduce Resource Efficiently

We use CU, AI, PE, and PVC as our main resources for production. We are continuously developing recycling technologies for raw materials and products to ensure the efficient use of resources, while also widening the areas in which we use recycled raw materials. To reduce the resources used for packaging materials, we improved the design of wooden drums, which are our main packaging material, and optimized the number and size of the drums by securing advanced technologies, thereby minimizing wood consumption. The wooden drums used in packaging and transportation are recovered from major customers upon agreement and recycled after repair and maintenance. Scrap wire is also recovered from products disposed at the end of their lifecycle, following the Voluntary Agreement on Waste Recovery & Recycling with the Ministry of Environment. In 2012, roughly 2,300 tons of PVC were collected and roughly 600 tons of copper during the manufacturing course are recycled.

Najor Resource Use					
Category	2010	2011	2012		
CU	243,033	211,677	175,291		
Al	27,289	26,088	21,939		
PE	21,370	23,615	26,893		
PVC	6,467	6,516	5,074		

Use & Management of Water Resources

The Anyang plant is provided water from Paldang reservoir, the Gumi & Indong plants gets water from Nakdong River, and the Donghae plant gets water from the Dalbang reservoir through K-Water, which is Korea's governmental agency for comprehensive water resource development and provision. We use about 1,805 tons of water per day, and our water consumption is deemed to have only a minor impact on each water source. The water we use can be categorized as industrial water, which is used as a coolant for cable manufacturing processes, and water for daily use, which is used by our employees. To reduce water consumption, we operate a recycling system that transfers waste cooling water discharged from the cooling process after extrusion to a cooling tower, where it is filtered and cooled before being fed back into the extrusion.

Water Use & Basic Unit Uni				
Category	2010	2011	2012	
Water for daily use	523,940	647,992	564,146	
Water for industrial use	88,309	95,952	60,294	
Underground water	55,274	52,074	50,842	
Total	667,523	743,944	675,282	
Basic Unit [water consumption (ton) / product output (1,000 ton)]	0.93	1.03	1.02	

Energy Use (based on heats)

					onit :	
2010	2011	2012				
713,469	726,249	669,096				
2,220,399	2,207,020	2,277,492				
146,105	150,288	155,803				
3,079,973	3,083,557	3,102,391				
4.6	4.29	4.69				
	713,469 2,220,399 146,105	713,469 726,249 2,220,399 2,207,020 146,105 150,288				

* Energy use workplaces include HQ, sales offices, training centers, solution sales offices, and domestic workplaces. The basic unit is subject to the domestic workplaces.

GHG Emissions*

Category		2010	2011	2012	
Direct emission (Scope 1)**		41	42	40	
	SF ₆	93	63	31	
Indirect emission (Scope 2)*	* *	125	123	119	
Other indirect emission (Sco		2	2	2	
Total		261	230	192	
Basic Unit (tonCO2eq / ton of product)		0.39	0.32	0.29	

* The emission coefficient applied to the GHG estimation is based on the Guidelines for National Greenhouse Gas Inventories (IPCC 2006) ** Fixed (combustion in boilers, etc.), mobile (operational vehicles), leakage (fire extinguishers, etc.) and process emissions (production processes)

*** Emission by electricity and steam

**** Emission from leased buildings, 3rd party contract fleets (commuter vehicles, transport fleets), business trips, etc.

Air Pollutants Emission

The major air pollutants emitted from our operation include NOx, which is generated in the manufacturing process of magnet wires in the Gumi Plant, and dust, which is created during the SCR* (Southwire Continuous Rod System) process. The amount of NOx emitted each year is approximately 22 tons, accounting for 80% of the amount of all air pollutants combined, while the amount of dust emitted every year equals 3.1 tons, accounting for 10%. We have installed dustproof equipment, including an RTORegenerative Thermal Oxidizer and an SCRSelective Catalytic Reductor, to minimize the emission of NOx, as well as dust collecting equipment to control the dust generated by the SCR smelting furnace. Furthermore, pollutants are continuously monitored and kept below 30% of the legal requirements. * SCR (Selective Catalytic Reductor) : Continuous copper rod production system developed and patented by U.S. Southwire (USA)

Air Dellutent Emission and Desis Unit

Category	2010	2011	2012
Dust	3,940	2,143	3,091
Nox	20,355	24,252	22,501
HCL	1,033	1,550	2,499
HF	142	119	156
Basic Unit (kg / 1,000 ton of product)	38.1	39.9	42.6

* Air pollutants emission is at the level from the previous year, but production was reduced by 8%. The basic unit increased by 7%.

Water Pollutant Discharge

Our plants are not in or near any special water protection zones, special control zones, or protected areas for biodiversity. In addition, the wastewater generated during the production process at the Gumi and Indong plants is treated at a wastewater treatment facility before being discharged into the local sewage treatment plants. The wastewater from the Anyang and Donghae plant is discharged directly into the sewage treatment plants. Our wastewater consists mostly of waste cooling water, which is created during the cooling process after extrusion in our cable manufacturing process. The main pollutants in the wastewater are COD and SS, and it does not contain any toxic materials or heavy metals that are detrimental to the ecosystem. When it is treated before being discharged into the sewage treatment plants, the wastewater is treated to 30% of pollutant density of the legal requirements or below. Thus, it can be assumed that the wastewater discharge from our worksite has little impact on public waters and the ecosystem.

Water Pollutant Discharge and Basic Unit

Water Foliatant Discharge and Dasie office				
Category	2010	2011	2012	
BOD	89	47	0	
COD	1,158.20	959	1,802	
SS	613	332	439	
T-N	351.1	305	488	
Total	2,211.30	1,642.60	2,729.20	
Basic Unit [discharge (kg) / 1,000 ton of product]	3.3	2.3	4.1	

* Due to the increased COD discharge from the increased production at Donghae Plant, the basic unit of whole pollutant increased.

Appendix

Unit : 1,000 tonCO2eq

Appendix

^{Topic} 07 Risk Management

Waste Management

Key wastes generated in our operation include waste oil and organic solvents from production processes, general industrial wastes such as discarded synthetic resins, synthetic rubber, and wood, and other wastes generated by employees in their daily lives. Our waste treatment is managed by specialized 3rd party waste disposal contractors, which are subjected to regular inspection and assessment at least once a year. We manage the entire process of waste treatment by using the government's online system (Allbaro System : www.allbaro.or.kr), thus enabling real-time monitoring of whether waste disposal is conducted in an appropriate manner.

Waste Disposal	Waste Generation			
Category	2010	2011	2012	
Incineration	3,810	3,580	3,205	Designated wastes*
Landfill	710	1,033	628	General wastes**
Recycling	10,636	11,247	12,971	Total
Recycling Rate (%)	70	71	77	Basic Unit [Wastes g

ion & Basic Unit Unit : ton 2012 2010 2011 Category 2,196 2,297 2.344 12 859 14.036 14.702 15.156 16,380 16,898 generated / 1,000 ton of product] 22.6 22.8 25.5

* Since the Anyang Plant completely moved, landfill wastes (construction) were reduced. The ratio of recycling of the wastes increased by 8%.

Designated wastes : waste oils, organic solvents, paints, acids, etc.

** General wastes : Scrap wire, synthetic resins, synthetic rubber, household waste, and other designated wastes

Chemical Substance Management

To prevent accidents related to chemical substances and enable their safe handling and storage, we have established and are implementing a set of standards for controlling chemical substances for each manufacturing process, taking into account their properties and the environmental threat they potentially pose. At each site, a comprehensive accident prevention system has been put in place, covering all stages involved including storage, to eliminate any risk of accidents. Only employees that have received training and are deemed qualified can transport and handle hazardous chemicals. In addition, for major facilities that use hazardous chemicals, regular emergency drills are devised around possible scenarios to train employees to respond to chemical-related accidents. Hazardous chemicals used in our operation include cresol, xylene, ammonia, and NaOH. Cresol and xylene used in magnetic wire manufacturing account for the largest proportion of hazardous materials. We are trying to reduce cresol consumption through various measures, such as by developing alternative substances.

Green Purchasing

We enact efforts to reduce environmental impacts over all the steps including product development, purchase of raw materials, production and shipping to promote the production and consumption of eco-friendly products. In reference to the Green Product Purchase Promotion Act and the Green Growth Framework Act on Low Carbon & Green Growth by the Korean government, we break down a green commodity into 6 categories, subject to purchase type and intended use. In case of green purchasing, we encourage the purchase of office supplies, office equipment, and consumables with domestic/foreign green marks. We buy eco-products if the price differential between an eco-product and a comparable conventional product is within 10%. In case of green procurement, we prefer to purchase harmful substances and wastes-reducing products.

Classification of Green Purchasing Products and Performance

Category	Definition	Amount (in USD)	Scope
	Products with Eco-Label certification (green mark)	3,790	• Eco-friendliness-certified products under the Green Product
Green	Products with GR Mark (recycling mark)	280	Purchase Promotion Act
Purchasing	Products with saved energy (energy mark)	4,855	• Products that save energy, reduce GHG emissions, and expand
	Products with other (domestic and foreign) environment marks	56	green consumption under the Green Growth Framework Act on Low Carbon & Green Growth
Green	Products lowering hazardous substances	158,899,523	Products that promote resource circulation and expand green
Procurement Pr	Products lowering wastes	40,626,266	product under the Green Growth Framework Act on Low Carbon & Green Growth

Environment Information Disclosure

We strive to disclose our environmental information to customers and stakeholders in a transparent manner. We currently disclose information on our environmental management activities through a green company information disclosure system. Also, by participating in CDP, we provide our key customers and the government with GHG data, whose objectivity has been verified through 3rd party experts each year. In the future we plan to disclose information on our green management activities through our sustainability report and website every year.

Fair Trade Training					Unit : person
Category	Head Office	Anyang	Gumi	Indong	Donghae
1st trainees	21	7	11	14	6
2nd trainees	26	7	1	-	-

Non-compliance Reporting System

Category	2010
No. of reporting cases (ratio)	
Financial favor acceptance	

Ethics Management Promotion

Category	2010	2011	2012
Ethics articles posted	46	52	48
Ethics training (sessions)	3	12	3
Ethics training (hours)	6	12	4
Ethics training (person)	1,167	1,298	52*
Sexual Harassment Prevention Training (person)	2,400	2,398	2,267

* We completed the ethics training for entire employees in 2010 and 2010 and for newly hired employees in 2012.

Ethical Level Assessment

We have been conducting the Ethical Level Assessment since 2010. The assessment consists of three indices: ethical management framework, corporate ethics implementation, and work-related ethics implementation. In 2012, the total score was 77.4, up by 1.6 from the previous year. In 2013, we plan to actively take measures including supplementation of the code of ethics and practical guidelines, enhancement of PR for the ethical management system, and expansion of ethics management to domestic subsidiaries in the relatively low areas.



Responsible Political Participation

We offer our expertise to the government and other organizations related to our company on industrial policy establishment, and are practicing responsible political participation through rational discussions. Over the past 3 years, we have never made a contribution to politicians or political lobbyists.

Compliance

In 2012, there was no non-compliance case with regulations on products, customer service, human rights, labor, fair trade, and environment

		Unit : case
	2011	2012
17 (100%)	33 (100%)	14 (100%)
3	1	1

Appendix_GRI Guideline

● Fully Reported ● Partly Reported ○ Not Reported N/A Not Applicable

Indicato	r	Reported	Page
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Strategy	and Analysis		
1.1	Statement from the most senior decision-maker of the organization.		6~7, 8~9
1.2	Description of key impacts, risks, and opportunities.		16
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2.1	Name of the organization		Front Cover, 10
2.2	Primary brands, products, and/or services		12~13, 14~15
2.3	Operational structure of the organization		10, 18~19
2.4	Location of organization's headquarters		10
2.5	Number of countries where the organization operates, and names of countries		18~19
2.6	Nature of ownership and legal form		23
2.7	Markets served		18~19
2.8	Scale of the reporting organization.		10
2.9	Significant changes during the reporting period regarding size, structure, or ownership		4, 18
2.1	Awards received in the reporting period		See Additional Informati
Report P	arameters		
3.1	Reporting period		4
3.2	Date of most recent previous report		4
3.3	Reporting cycle		4
3.4	Contact point for questions regarding the report or its contents		Back Cover
3.5	Process for defining report content.	•	5
3.6	Boundary of the report	•	4
3.7	State any specific limitations on the scope or boundary of the report		4
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities		4
3.9	Data measurement techniques and the bases of calculations		4
3.1	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement		4
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report		See Additional Informati
3.12	Table identifying the location of the Standard Disclosures in the report	•	86~89
3.13	Policy and current practice with regard to seeking external assurance for the report	•	90~91
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4.1	Governance structure of the organization		23
4.2	Indicate whether the Chair of the highest governance body is also an executive officer		23
4.3	The number and gender of members of the highest governance body		23
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	•	24
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives and the organization's performance	•	23
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided	•	23
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body	•	23
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4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance	Ð	20, 23
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	O	23
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	•	69
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	•	53, 92
4.13	Memberships in associations		73
4.14	List of stakeholder groups engaged by the organization.		24
4.15	Basis for identification and selection of stakeholders with whom to engage.		24
4.16	Approaches to stakeholder engagement		24
4.17	Key topics and concerns that have been raised through stakeholder engagement, and our response		25
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EC4	Significant financial assistance received from government		76

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Market pi EC5		•	80
	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	0	-
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation		
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	O	52~80
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EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement	•	47, 50
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EN8	Total water withdrawal by source	•	82
EN9	Water sources significantly affected by withdrawal of water	•	82
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Biodiversi		-	
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	N/A	-
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	N/A	-
EN13	Habitats protected or restored	N/A	-
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	•	See Additional Informatio
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations	N/A	-
	, effluents and waste		
EN16	Total direct and indirect greenhouse gas emissions by weight	•	83
EN17	Other relevant indirect greenhouse gas emissions by weight	•	83
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EN25	water bodies and related habitats significantly affected by the organization's discharges of water and runoff	•	83
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EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	•	66~67
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	0	82
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EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	•	85
21120		-	00
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	•	64
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Appendix_GRI Guideline

Appendix_GRI Guideline

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	onal health and safety		
_A6	Percentage of total workforce represented in formal joint management-worker health and safety committees	•	57
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender	•	81
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LA12	Percentage of employees receiving regular performance and career development reviews		54
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	nt and procurement practices		
HR1	Percentage and total number of significant investment agreements that include human right clauses or that have undergone human rights screening		See Additional Information
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken	•	78
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations	•	53
	imination	•	55
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rieedom			
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SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	•	85
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SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations		85
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SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities		See Additional Information

Fully Reported	O Not Reported	N/A Not Applicable
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Indicate	● Fully Reported ● Partly Reported ○ Not R		
		Reported	Page
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PR1	Life cycle stages in which health and safety impacts of products and services are assessed	•	41
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Marketi	ng communications		
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	•	77
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	•	77
Custom	er privacy		
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	•	77
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	•	85

Additional Information

2.10	 President's Award celebrating the Science Day : Jeon Seung-il Minister's Award celebrating the Science Day : Yang Young – Engineer of the Month Award, Lee, Joon-keun, Principal Rese
3.11	There is no significant changes in the scope, boundary, or measured
EN14	We have a policy stipulating that we shall minimize negative in and the ecosystem. Also, we make an effort to minimize all nee and public agencies.
EN19	We manage and make a phased replacement of R-11 (CFC11), in the Kyoto Protocol, yet these substances have a significant in conditioners and chillers.
LA5	We disclose the significant negotiation results related to emplo
LA14	We offer fair compensation irrespective of gender on the princi
HR1	When deciding new investment including new business setting human right. If a newly invested businesscrite do meet I inter
HR9	No violation involving rights of indigenous people during the re
SO2	No operation site with corruption risks
SO9/SO10	We are implementing the risk management to minimize busines

Criteria for the GRI Application Level



Appendix_GRI Guideline

g-ik, General Director g – gyu, Principal Research Engineer

search Engineer

easurement methods applied in the report

impacts on biodiversity. To attain this end, we analyze lifecycle impact of our products on biodiversity negative impacts identified by establishing countermeasures in close cooperation with local communities

), R-22 (HCFC22) and R-123 (HCFC123), as optional gases, which are included in the 6 GHGs specified impact on climate change and damage the ozone layer. They are mostly used as refrigerants in air

loyment benefits by website

nciple of the equal pay for equal work.

ng-up, acquisition, and joint venture, etc., we carry out QA procedure including labor practice and ernational human right principles, we will improving it as a top priority matter.

reporting period.

less impacts on society by actively analyzing them and taking corrective measures against negative impacts

C+	В	B+	Α	A+
Assured	Report on all criteria listed for Level C plus : 1.2, 3.9, 3.13, 4.5-4.13, 4.16~4.17	Assured	Same as requirement for Level B	Assured
Externally	Management Approach Disclosures for each Indicator Category	Externally	Management Approach Disclosures for each Indicator Category	Externally
 Report E	Report on a minimum of 10 Performance Indicators, including at least one from each of : Economic, Social and Environmental.	Report E	Report on each core G3 and Sector Supplement Indicator with due regard to the Materiality Principle by either : a) reporting on the Indicator or b) explaining the reason for its omission.	Report E

To the Stakeholders of LS Cable & System :

LS Cable & System commissioned the Korea Productivity Center (the "Assurer") to provide an independent assurance of its 2012 Sustainability Report (the "Report").

Responsibility and Integrity

LS Cable & System is responsible for the reliability and accuracy of all information and opinions presented in this "Report". The Assurer holds the responsibility which lies solely in providing a third party verification of the content in the "Report". As an independent assurance agency, the Assurer was neither involved in the process of preparing this "Report" with LS Cable & System, nor in any conflicts of interest that may undermine our independence.

Assurance Standard and Objectives

The independent verification process was planned and performed in accordance with the AA1000AS (2008) Assurance Standard to provide Type 1 moderate level of assurance. This is achieved through the evaluation of the organization's adherence to the AA1000APS Accountability Principles (2008) of Inclusivity, Materiality and Responsiveness. Additionally, the assurance was performed to ascertain the organization's adherence to the Global Reporting Initiative (GRI) G3.1 Guidelines in preparing and presenting sustainability performance information.

Assurance Limitations

Based on the aforementioned assurance standards, the Assurer performed verification of the organization's sustainability performance during 2012, however the assurance did not include the reliability of data financial performance, public domains and information linked with the website. Site inspection was performed at the Head Office. Therefore, the Assurer clearly states that any additional verification conducted in the future may issue varied results.

Assurance Methodology

The assurance was undertaken following the methodology specified below :

- Verified if the Report indicators for GRI Application level A by reviewing the coverage rate of and presentation method for economic, environmental and social indicators specified in the GRI G3.1 Guidelines
- Verified consistency with the principles dictating the content and quality of sustainability reports based on the GRI G3.1 Guidelines

- Verified the appropriateness of identifying key issues and the responsiveness to the content presented in the Report by the material analysis methodology, media research and benchmarking.
- Verified the appropriateness of the report content with other sources for incorrect information through comparative analysis.
- On-site verification at the head office and plant has been conducted to confirm evidences for key data and information as well as internal processes.

Findings and Conclusions

It is the Assurer's opinion that the Report fairly and accurately presents the sustainability efforts and performance of LS Cable & System. Also, the assurance verified that the self-declared requirements claimed by LS Cable & System for the GRI Application Level A have been met. Followings are results of assurance according to AA1000 Accountability Principles (2008) of Inclusivity, Materiality and Responsiveness.

1. Principle of Inclusivity : Stakeholder Engagement

The principle of inclusivity articulates that organizations should include stakeholders in developing and achieving an accountable and strategic response to sustainability. The principle of inclusivity articulates that organizations should include stakeholders in developing and achieving an accountable and strategic response to sustainability. Through the validation, LS Cable & System is in compliance with the principles of inclusivity through various improvement efforts toward progress in 2012. LS Cable & System identified six key stakeholders as Customers, Suppliers, Employees, Communities, Shareholders and Investors, and Government while communication channels and expectations have been clearly established and their opinions have been reflected in the management policy. In addition, each stakeholder group communicates opinions on matters of importance and evaluation the results. In particular, LS Cable & System and affiliates engagement with stakeholders demonstrated long-term growth oriented activities such as value creation and evaluation. In the future, the results of stakeholder engagement, communication operations and management decision of the Board of Directors are included in the decision making process and presented in the company's strategy and sustainable management.

2. Principle of Materiality : Selection of and Reporting on Material Issues

The principle of materiality articulates that organizations should focus on issues relevant and material to both the organization and its major stakeholders. The Assurer discovered key issues that are significant to the organization and its major stakeholders and were identified through internal analysis, employee surveys and external risk assessment related to LS Cable & System. The reports identifies a total of 45 issues and 15 material issues as well as 7 major topics, activities

and performance and have been disclosed. In the future, taking into account the continuity of reporting issues and concentrating on key goals and performance issues in the annual report, it is recommended to establish an internal reporting system.

3. Principle of Responsiveness: Organizational Response to Issues

The principle of responsiveness articulates that organizations should be responsive to issues that may have impacts on stakeholders' performance. The Assurer identified that LS Cable & System successfully identified key expectations that have an influence on stakeholders' performance, and performed responsive activities. LS Cable & System sustainable management activities are summarized by seven topics in response to financial and creative innovation activities, customers, suppliers, communities, employees, green management and risk. In particular, suppliers' co-existing in terms of Win-Win growth linked to support systems, shared growth council activities and emerging social issues are proactive responses to activities for evaluation is recommended.



P.S. Kim

Dong Soo Kim, Director Sustainability Management Center

The Sustainability Management Center of the Korea Productivity Center is an assurance agency officially certified by AccountAbility, which established AA1000, the international standards for stakeholder participation and verification, and has gualifications to perform independent assurance engagements. Our Assurance Committee is also comprised of competent experts who have in-depth experience in sustainability management consulting and assurance and completed the relevant professional training.

Recommendations

The Assurer commends LS Cable & System for making a variety of efforts to improve sustainability, resulting performances, and presents the following recommendations to enhance future sustainability reports and sustainability management.

- The Assurer recommends reflecting the results of the decisions from stakeholder engagement and communication and between management. The results of stakeholder engagement and communication to consistently measured by economic, social and environmental sustainability, including the short and long term, is also important to measure based on the company's strategy and direction.
- The Assurer recommends the introduction of a systematic issue performance management system, disclosure of information, response to issues at the management level, strategies and objectives, and present the results obtained to determine growth by comparing the annual corporate sustainability.
- The assurer advices the Board of Directors to regular review and promote sustainability as well as ensure goal setting activities are established and completed. LS Cable & System and their partner affiliates promote sustainability management and institute a more systematic and clear value consensus of sustainability issues.





June 2013

Hong Jin Chairman Korea Productivity Center

7 50

Seung Tae Cheong, Senior Fellow Sustainability Management Center

Yang Ho Lee Team Leader Sustainability Management Center

UN Global Compact

UN Global Compact COP

We participate in the UN Global Compact, a voluntary initiative on corporate social responsibility, and are doing our best to abide by its 10 principles related to human rights, labor, the environment, and anti-corruption. This report aims to show our performance on the implementation of these principles, based on the 24 advanced-level criteria. We will strive to continue and reinforce our CSR implementation.

Principle	Details to report
 Strategy, Governance and Engagement 1 – Key aspects of the company's high-level sustainability strategy in line with Global Compact principles 2 – Effective decision-making processes & systems of governance for corporate sustainability 3 – Engagement with all important stakeholders 	 Proposing management policies for social responsibilities Establishing a company-wide sustainability strategy and form an organization for its implementation Analyzing the opportunities and risks related to sustainability management, as well as the social and environmental impact of LS Cable & System's corporate activities Discussing and deciding on key issues related to sustainability management through the executive's meetings, the decision-making body Defining key stakeholders and devising channels for engagement
UN Goals and Issues 4 – Actions taken in support of broader UN goals and issues	 Supporting UNDP's Millennium Development Goals Currently striving to fight poverty, improve hygiene, and ensure a sustainable environment by carrying out activities at LS Cable & System's business sites
 Human Rights Implementation 5 – Robust commitments, strategies or policies in the area of human rights 5 – Effective management systems to integrate human rights principles 7 – Effective monitoring and evaluation mechanisms of human rights integration 8 – Key outcomes of human rights integration 	 Declaring LS Cable & System's principles of respecting human rights through the company's code of ethics and employment regulations Raising awareness by conducting human rights training, posting PR materials, etc. Evaluating the company's level of human rights protection through regular evaluations Operating counseling centers, grievance procedure system, whistleblower system Conducting regular reviews on performance through ISO26000 and GRI 3.1 and establish future plans
Labor Principles Implementation 9 – Robust commitments, strategies or policies in the area of labor 10 – Effective management systems to integrate the labor principles 11 – Effective monitoring and evaluation mechanisms of labor principles integration 12 – Key outcomes of integration of the labor principles	 Complying with ILO conventions, the National Labor Relations Act, and the Social Security Act Specifying mutual rights and duties through collective agreements Discussing and deciding on key labor-related agendas through the Involvement & Cooperation Expansion Committee Conducting the Labor-Management Committee's yearly on-site satisfaction survey Operating report channels for reporting unfair labor practices Specifying the prohibition on child labor and forced labor in employment regulations and collective agreements
 Environmental Stewardship Implementation 13 – Robust commitments, strategies, or policies in the area of environmental stewardship 14 – Effective management systems to integrate the environmental principles 15 – Effective monitoring and evaluation mechanisms for environmental stewardship 16 – Key outcomes of integration of the environmental principles 	 Establishing the Green Management Mid-term Roadmap and building an environmental management system based on ISO14001 Managing the Green Management Committee, headed by the CEO, as well its affiliated committees—the Climate Change Committee, Green Product Committee, and Environmental Safety & Health Committee Currently evaluating the environmental impact of the company's activities and monitoring the performance related to the environment by forming an Environmental Planning Team Disclosing the company's environmental performance through its sustainability management report, website, and COP
 Anti-corruption Implementation 17 – Robust commitments, strategies or policies in the area of anti-corruption 18 – Effective management systems to integrate anti-corruption principles 19 – Effective monitoring and evaluation mechanisms for the integration of anti-corruption 20 – Key outcomes of integration of the anti- corruption principle 	 Declaring the company's code of ethics, and forming the Ethics Secretariat to handle all work processes related to ethics and anti-corruption Establishing the Ethical Management Implementation Roadmap Operating reporting channels and ethics counseling centers Conducting an evaluation of the level of ethics on all employees every year and devising improvement measures Reviewing compliance with the law and the code of ethics through management evaluation Conducting regular reviews on performance through ISO26000 and GRI 3.1 and establishing future plans
Value Chain Implementation 21 – Implementation of the Global Compact principles in the value chain	 Expanding the ethical management systems into the domestic subsidiaries Sending suppliers Letters of Cooperation on ethical management and requesting their pledges on implementation Establishing global purchasing guidelines that incorporates the UNGC principles as well as other elements of sustainability management Providing sustainability training to suppliers and conducting evaluation
Transparency and Verification 22 – Information on the company's profile and context of operation 23 – Incorporation of high standards of transparency and disclosure 24 – Independent verification by a credible third-party	 Reporting on the company's impact and activities in relation to governance, business performance, impacts and activities Reporting on performance based on ISO 26000 and GRI 3.1 Receiving verification from the Korea Product Center (KPC), a third-party verification authority, on the company's system and performance



Statement GRI Application Level Check

GRI hereby states that LS Cable & System has presented its report "2012 LS Cable & System Sustainability Report" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 27 May 2013

Nelmara Arbex Deputy Chief Executive Global Reporting Initiative

The "+" has been added to this Application Level because LS Cable & System has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

Disclaimer: Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 20 May 2013. GRI explicitly excludes the statement being applied to any later changes to such material.





Link the World **Think the Future**



If you need any additional information or have any questions about this report, please contact us.

Sustainability Coordination Group

* For more information on the current status of the businesses, refer to our business report.