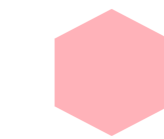
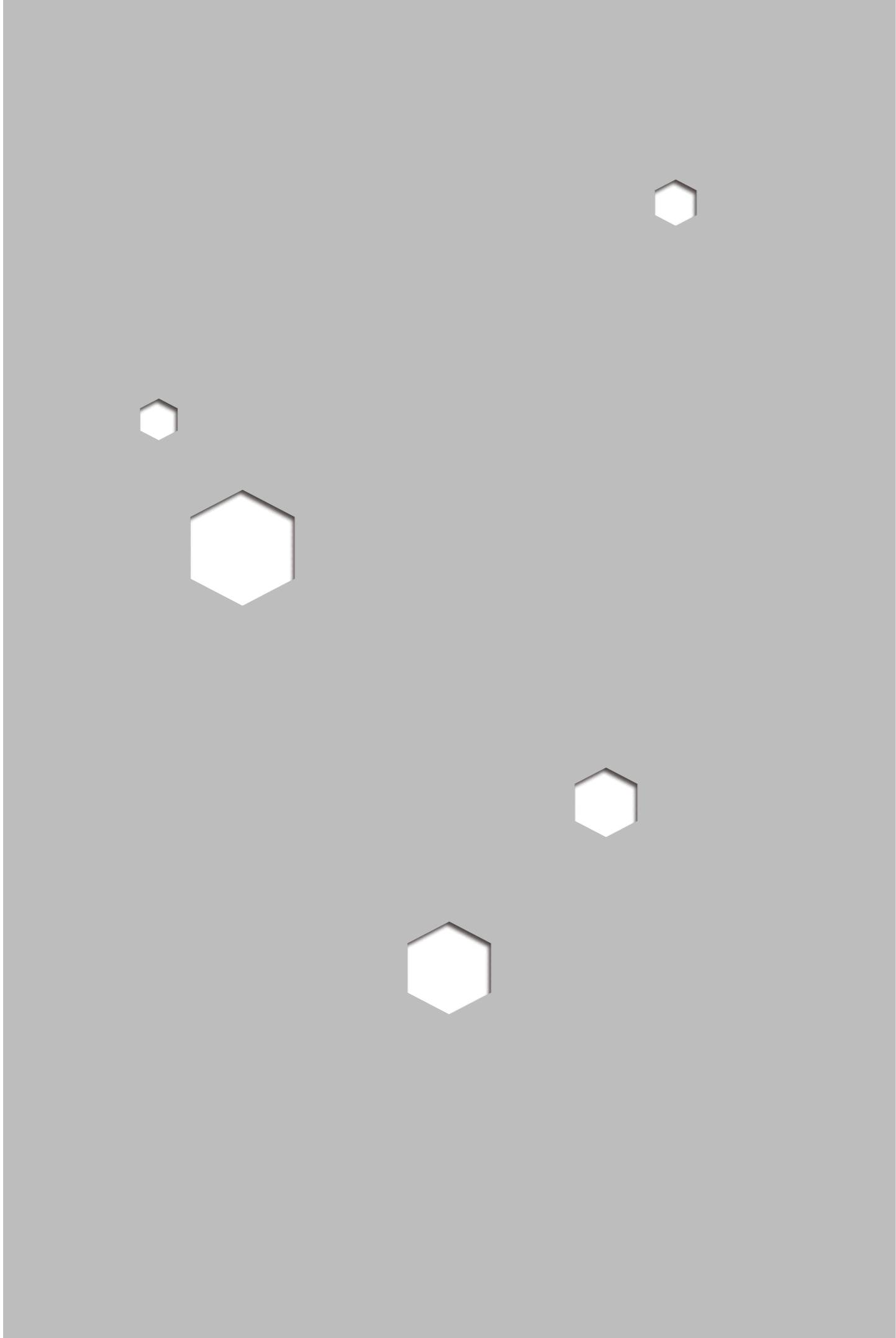
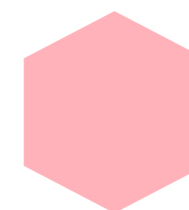
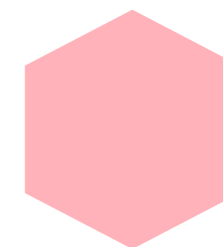


# Nature, Human and Space



We create  
human-friendly  
and eco-conscious  
living spaces.



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<b>Report Overview</b>	This report marks LG Hausys' sixth sustainability report. We at LG Hausys use this report to reflect and disclose the concerns and requirements of our stakeholders in the areas of economy, environment and society. We aim to publish such reports every year to illustrate our achievements made in sustainability management and to use these reports as a communication channel to gather feedback from our internal/external stakeholders.
<b>Reporting Period</b>	This report contains our economic, environmental and social initiatives and accomplishments between January 1st, 2016 and December 31st, 2016. The latest data is included for several sections (e.g. composition of the BOD). The data for the years 2014-2016 is provided for a portion of the quantitative data to allow for yearly trend analyses.
<b>Reporting Scope</b>	The contents of this report covers our headquarters and domestic plants. Some data covers our overseas subsidiaries in China, the U.S. and other regions. If any data discrepancy from the previous report occurs due to modification in data coverage or calculation methods, such differences are marked separately. The financial data of LG Hausys and its subsidiaries are reported on a consolidated basis in accordance with K-IFRS standards.
<b>Reporting Principles</b>	The preparation of this report is based on the Core Option of the Global Reporting Initiative (GRI) G4 guidelines. For further details, please refer to the GRI Index on pages 78-81.
<b>Assurance</b>	This report was assured by an independent third-party assurance service provider in accordance with AA1000APS(2008), and the assurance statement appears on pages 76-77.
<b>Contact</b>	CSR Team, LG Hausys, One IFC, 10 Gookjegeumyoong-ro, Yeongdeungpo-gu, Seoul, Korea (07326) Website : <a href="http://www.lghausys.co.kr/">http://www.lghausys.co.kr/</a> , E-mail : <a href="mailto:csrteam@lghausys.com">csrteam@lghausys.com</a> , Phone : +82-2-6930-1577, Fax : +82-2-6930-1586

# LEADING THE VALUE OF SPACE

making space for a better life



## CEO MESSAGE

At LG Hausys,  
we vow to fulfill our social responsibility in a way  
that befits our status as a globally-renowned company  
so that we earn your trust and respect in so doing.



Oh Jang-Soo, President & CEO, LG Hausys

Dear Stakeholders,

We present our sixth sustainability report to disclose our broad-ranging initiatives undertaken and accomplishments made in advancing our sustainable growth in the economic, environmental and social arenas. Through this report, we aim to help you better understand our sustainability management initiatives and integrate your valued feedback in our business conduct.

LG Hausys is Korea's largest manufacturer of building & decorative materials, high-functional materials and automotive components. Guided by our core technology, we consistently explore new growth drivers, from energy-saving windows, noise-attenuation flooring, high-performance insulation materials to lightweight automotive parts, acrylic solid surfaces and high-functional interior design films.

In 2016, our sales amounted to KRW 2.9283 trillion, and operating profits were KRW 147.0 billion. Our sales and operating profits grew by 9.0% and 1.1% respectively over the past year, and we believe that this is attributable to our endeavors to remain focused on product innovation, cost innovation and sales innovation to 'bring fundamental change to our business structure'

Our top priority this year is to nurture our market-leading business and prepare for the future by identifying new growth drivers and focus on building a stronger executional capability. Driven by the overarching strategic direction of focusing on the automotive materials and parts business and positioning our building & decorative materials business in the high-end segment, we aim to implement the following five key initiatives : we will raise our domestic market share to 50% and above, increase the ratio of our overseas business to 50% and above, improve manufacturing costs, achieve 6σ quality, and consistently strengthen our R&D capability.

To bring about substantial change based on our successful implementation, our company-wide management system will shift into an 'execution-driven management system' from 2017 onwards. Furthermore, we will perform intensive reviews on all our worksites for their overall environment and safety management system and fully launch our productivity improvement and quality innovation initiatives. In so doing, we aim to enhance product quality, innovate our manufacturing process, and reduce internal/external failure costs while delivering products that lead the market with unrivaled quality.

Our vision is to create 'human-friendly, eco-conscious happy living spaces.' Our employees cherish the opportunity of providing truly remarkable interiors and creating new value for our customers. It is with this vision that they are thus fully committed to, and set the market trend in creating intuitive, eco-conscious, and energy-saving products.

To realize this vision, we will implement the following sustainability management initiatives in line with our execution-driven management system.

### First, we take the lead in establishing the leadership of our green products.

We build on our 'Green Identity' to provide energy-saving and eco-friendly building materials, lightweight automotive components and other green products, while expanding the delivery of new green products and gaining even more green certifications, both in Korea and abroad. Notably, our high-performance building material 'PF insulation boards' became the industry's first to be 'EPD (Environmental Product Declaration)' -certified. Our achievements in broadening our green product line-ups were also recognized as our ZEA Sorijam and PF insulation boards were honored as 'Green Products of the Year Chosen by Korean Consumers' for three consecutive years.

### Second, we strive to create a safe workplace.

We conduct self-inspections on the equipment and facility of our domestic and overseas plants to prevent accidents that could pose a grave impact on our operations. This year, all our plants will be subject to intensive inspections on their overall safety and environmental management system, and practical mock drills will be performed to ensure the accountability of our top management and to strengthen the prevention of any accident.

### Third, we seek shared growth with our suppliers.

We continue to expand our joint technology development and benefit sharing with our suppliers to pursue mutual benefits while offering financial and business support and promoting a close and continual communication. We also operate a mutually beneficial payment system to extend our support to suppliers, even at the tier 2 level and below. In so doing, we strive to disseminate shared growth along the entire supply chain.

### Fourth, we contribute to the development of local communities through our social-giving initiatives.

We put our capabilities to the best use in undertaking broad-ranging social-giving programs such as upholding the Dokdo Natural Preservation Zone (Jikimi initiative), renovating the historic sites of Korea's Independence Movement, as well as the residence of men of national merit, and the 'Make a Happy Space initiative' designed to benefit public youth spaces and local child welfare centers.

We vow to fulfill our social responsibility in a way that befits our status as a globally-renowned company so that we earn your trust and respect in so doing. We look forward to your unwavering interest in and support for LG Hausys.

Thank you.

# BUILDING SPACE

## LG Hausys Overview

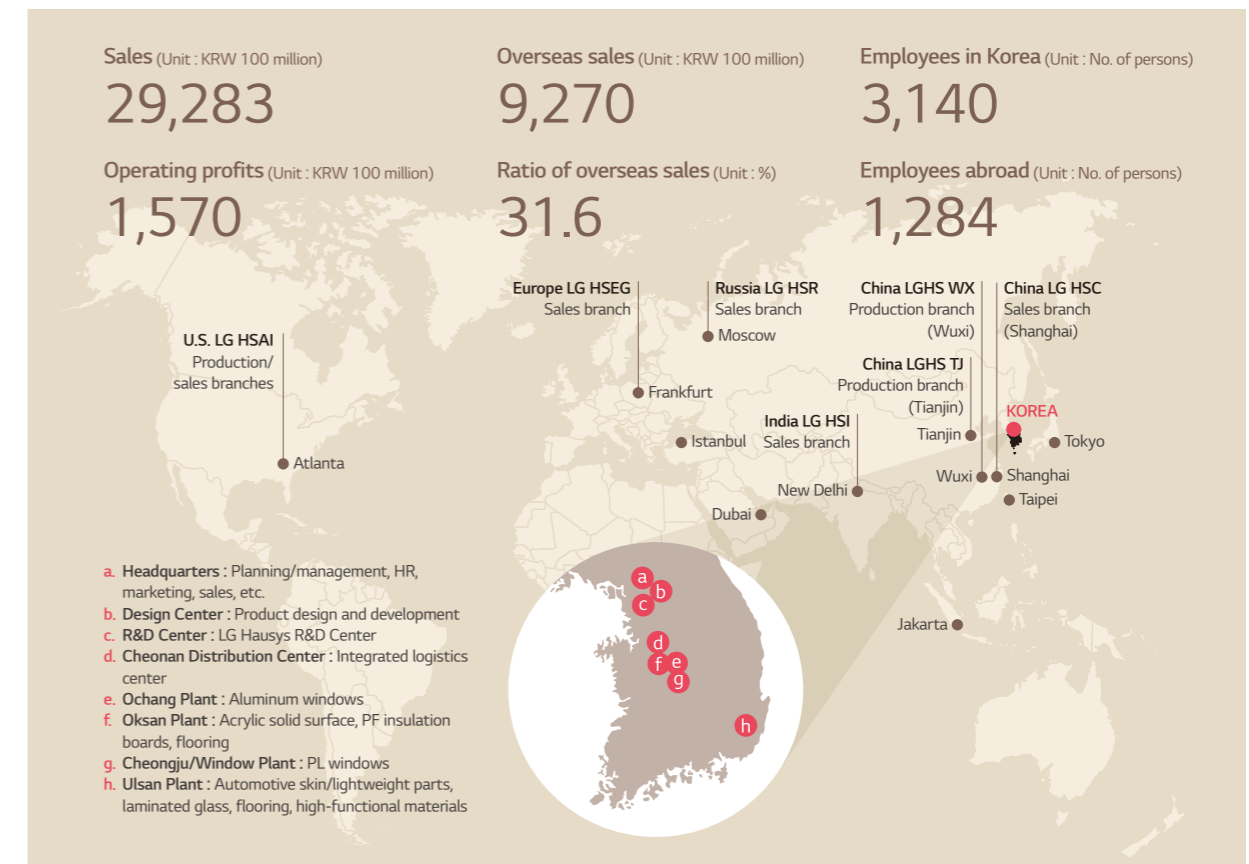
Our sustainability management system is the foundation of our business and we are in ever-close communication with our stakeholders in order to solidify our status and position as a sustainable company.



## Corporate Overview

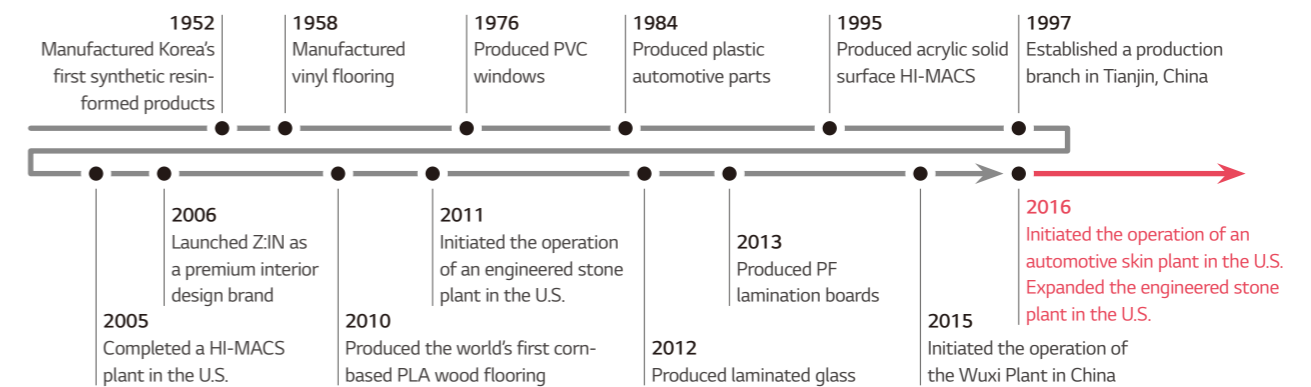
LG Hausys is Korea's largest manufacturer of building & decorative materials, in addition to high-performance and automotive materials & parts. From market-leading green energy-saving products and interior materials that decorate the space our customers stay and relax, to automotive skin and lightweight components that complete the space where our they drive and are on the move, we deliver differentiated features and designs to create sound and aesthetically-pleasing living spaces. In so doing, we aim not only to satisfy our customers; but also to earn their trust.

### LG Hausys at a Glance



### History

### THE MOTHER COMPANY OF LG GROUP SINCE 1947



# Product Portfolio



## Building & Decorative materials

To create safe and vibrant interiors, we create windows and laminated glass with exceptional insulation and durability, green flooring and wallpaper with surface lay materials made from a natural base, fire-proof insulation boards with outstanding insulation performance, acrylic solid surfaces favored by world-renowned architects, and decorative and interior design films recognized for their trendy designs and top-notch functionality.

### Primary products

Windows, Glass, Flooring, Wallpaper, PF lamination boards, Acrylic solid surface & Engineered stone, Synthetic wood, Decorative films, Furniture films, Interior design films



## High-functional materials

We produce home appliance films known for their outstanding design, materials used for advertisements, and vacuum insulation panels that improve energy/spatial efficiency to assist in the creation of aesthetically pleasing spaces.

### Primary products

Home appliance films, Sign & Graphics, Vacuum insulation panels



## Automotive materials & Components

Our automotive skin recognized for its exceptional functionality and eco-friendliness, lightweight parts that help improve fuel efficiency, and other automotive components fitted in both the interior and exterior of vehicles, lend to much safer and comfortable auto interiors.

### Primary products

Automotive skin, Lightweight parts, Automotive parts

# Sustainability Management

It is under our vision to create 'human-friendly, eco-conscious happy living spaces' that we advance sustainability management at LG Hausys. To become a company respected by society, we established our sustainability management system to focus on risk management, social contribution and stakeholder communication as the guiding principles of our sustainability management.

## Sustainability Management Implementation System



## Sustainability Management Roadmap

2015 Introduce global standards and differentiate programs	2016 Systematize CSR initiatives	2017 Expand CSR initiatives
<b>Risk Management</b> <ul style="list-style-type: none"> <li>Introduce global CSR standards</li> <li>Adopt the sustainability reporting standards GRI G4 guidelines</li> <li>Listed on the DJSI Korea Index for the first time</li> <li>Manage the risks of LG Hausys and suppliers</li> <li>Perform LG CSR self-assessments</li> <li>Adopt CSR criteria in evaluating suppliers</li> </ul>	<b>Risk Management</b> <ul style="list-style-type: none"> <li>Abide by global CSR standards</li> <li>Establish the global code of conduct on labor &amp; human rights</li> <li>Establish the CSR code of conduct for suppliers</li> <li>Assess the risks of LG Hausys and suppliers</li> <li>Perform LG CSR self-assessments and onsite audits</li> <li>Perform supplier CSR evaluations</li> </ul>	<b>Risk Management</b> <ul style="list-style-type: none"> <li>Perform CSR evaluations and offer training</li> <li>Conduct regular CSR evaluations and offer training to expatriates prior to their assignments</li> <li>Systemize suppliers' risk prevention initiatives</li> <li>Expand the ratio of onsite audits</li> </ul>
<b>Social Contribution</b> <ul style="list-style-type: none"> <li>Launch social-giving initiatives for patriots</li> <li>Support the renovation of Independence Movement memorial halls</li> <li>Improve the living conditions for men of national merit</li> <li>Implement cultural heritage preservation programs</li> <li>Dokdo Natural Preservation Zone Jikimi Initiative</li> <li>Cultural heritage preservation initiatives (four historic palaces)</li> </ul>	<b>Social Contribution</b> <ul style="list-style-type: none"> <li>Facilitate leadership programs</li> <li>Social contribution to honor patriots</li> <li>Dokdo Natural Preservation Zone Jikimi</li> <li>Make a Happy Space</li> <li>Expand local community/training facility programs</li> <li>Assist in the recovery from the damage typhoon 'Chaba' caused</li> <li>Support undergraduate chemical engineering departments</li> </ul>	<b>Social Contribution</b> <ul style="list-style-type: none"> <li>Improve the quality of existing programs and strengthen their execution</li> <li>Implement social-giving initiatives for patriots and the Dokdo Jikimi initiative</li> <li>Evaluate and improve social contribution initiatives</li> <li>Discover new programs</li> <li>Develop programs that engage employees or ones that are aligned with governments</li> <li>Expand economic/social outcomes</li> <li>Strengthen external/internal communication</li> </ul>

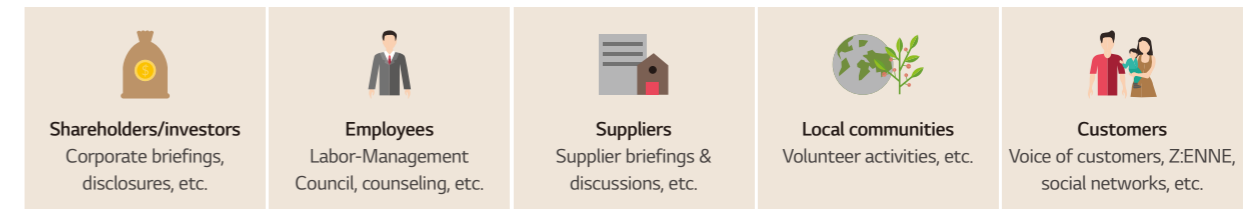
## External Awards Granted in Sustainability Management



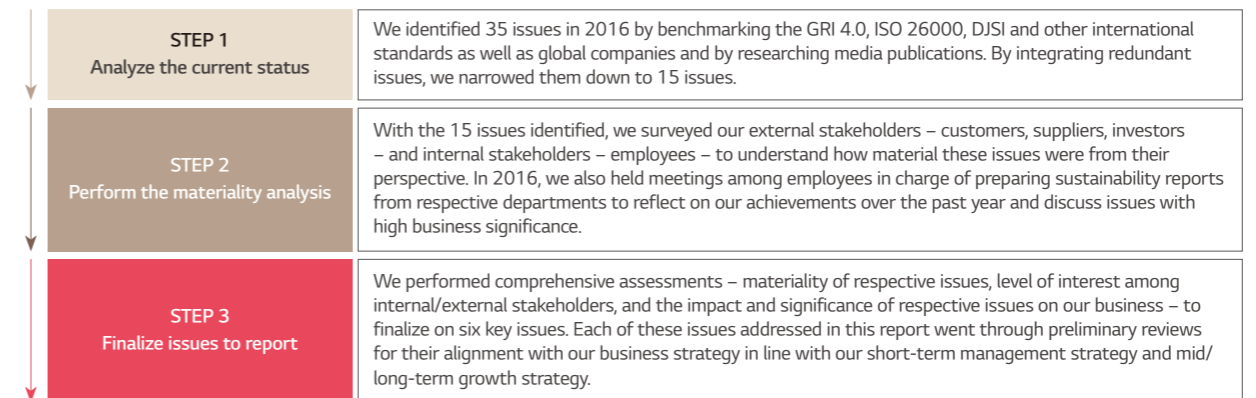
# Stakeholder Communication and Materiality Analysis Process

We define shareholders & investor, employees, customers, suppliers, and local communities as our key stakeholders in accordance with their role, influence and responsibility, out of the individuals and organizations who interact with us in our business conduct. Our Sustainability Report 2017 outlines our key initiatives undertaken in 2016 by identifying the concerns and expectations of our stakeholders.

## Key Stakeholders and Communication Channels



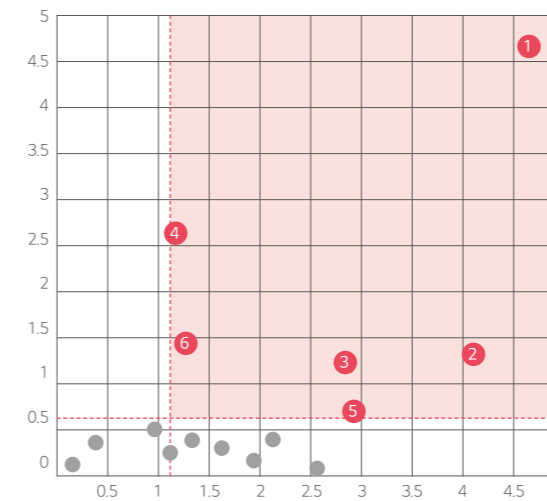
## Materiality Analysis Process



## Reporting Content

Our Sustainability Report 2017 is our sixth such report, and presents issues of high interest among our stakeholders.

### Issues Reported



Issue	Rank
Business performance and strategy	1
R&D capacity-building	3
Development of green products	2
Social contribution	4
Provision of a safe workplace	5
Supplier management	6
Product quality and safety	7
Management of environmental pollutants at worksites	8
Launching of new products and strengthening customer service	9
Employee capacity-building	10
Respect for employees' human rights and labor rights	11
Company-wide climate change risk management	12
Strengthening of ethics management	13
Financial risk management	14
Management of water consumption	15



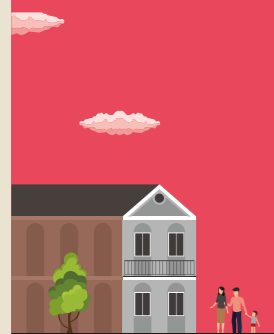
# Key Achievements in Sustainability Management and Major Issues Reported

The sustainability management issues that had the most impact on our internal/external stakeholders during 2016 were business performance and strategies, R&D capacity-building, development of green products, social contribution, provision of a safe workplace, and supplier management. We set mid/long-term goals on key issues or respective areas and consistently endeavor to progress on these in order to maximize our efficiency.

“  
Create  
human-friendly,  
eco-conscious  
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spaces  
”

Harmony with  
NATURE,  
HUMAN  
and SPACE

Key Issue	Priority	Key Achievements in 2016	2017 Plans	Mid/Long-term Goals	Page (GRI G4.0 Indicators)
Business Performance and Preparation for the Future	Promote our automotive materials and parts business as a flagship business	<ul style="list-style-type: none"> <li>Expanded our automotive lightweight parts line-up</li> <li>Initiated the operation of our automotive skin plant in North America</li> </ul>	<ul style="list-style-type: none"> <li>Accelerate the growth of our lightweight parts business</li> <li>Develop differentiated automotive skin products and expand their market</li> </ul>	<ul style="list-style-type: none"> <li>Lead the lightweight parts market</li> <li>Expand the automotive skin market across the globe</li> </ul>	P. 18-27
	Position our building & decorative materials business in the high-end segment	<ul style="list-style-type: none"> <li>Developed differentiated energy-saving products and premium products : Increased the sales of high-insulation windows, PF insulation boards, and engineered stone</li> </ul>	<ul style="list-style-type: none"> <li>Improve the performance of energy-saving products and strengthen differentiated new premium products</li> </ul>	<ul style="list-style-type: none"> <li>Continue to lead the domestic building materials market and increase the share of overseas business to 50% and above</li> </ul>	
	Strengthen our R&D competitive edge	<ul style="list-style-type: none"> <li>Automotive materials and parts                             <ul style="list-style-type: none"> <li>Diversified the materials adopted for automotive lightweight components and developed automotive skin that is produced by adopting lamination technology that reduces the emission of toxic gas</li> </ul> </li> <li>Building &amp; decorative materials                             <ul style="list-style-type: none"> <li>Developed PF insulation boards that prevent the spread of fire (Honored with the Grand Prize at the Fire Industry Awards)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Automotive materials and parts                             <ul style="list-style-type: none"> <li>Expand the automotive lightweight parts line-up, develop automotive skin that mimics the feel of natural skin</li> </ul> </li> <li>Building &amp; decorative materials                             <ul style="list-style-type: none"> <li>Develop products that improve customers' convenience (e.g. IoT-enabled windows)</li> <li>Develop products that improve indoor environments and deliver stronger safety features</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Strengthen technology in automotive lightweight components</li> <li>Develop next-generation building &amp; decorative materials through researching the future in residential environments</li> <li>Prepare for shifting market conditions by securing core technology and developing differentiated process and processing technology</li> <li>Reinforce open innovation to respond to the rapidly-changing technological landscape</li> </ul>	
Development of Green Products	Broaden the green materials and product market	<ul style="list-style-type: none"> <li>Launched new products : ZEA Fresh wallpaper, sheet flooring ZEA Sarangae, ZEA Maru Wood, furniture films, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Expand the green product line-up</li> </ul>	<ul style="list-style-type: none"> <li>Expand new green material products and increase their sales</li> </ul>	P. 28-33 (DMA-Energy, G4-EN3, EN5, EN6, EN7)
	Expand energy-saving products	<ul style="list-style-type: none"> <li>Launched new products : Super Save series 3, 5, 7, and fire-resistant PF fire belts</li> </ul>	<ul style="list-style-type: none"> <li>Continue to develop easy-to-use high-insulation windows and PF insulation boards</li> </ul>	<ul style="list-style-type: none"> <li>Expand new energy-saving products and increase their sales</li> </ul>	DMA-Water, G4-EN8, EN9 DMA-Discharge, G4-EN15, EN16, EN18, EN19, EN20, EN21)
Workplace Safety Management	Establish a culture of workplace safety	<ul style="list-style-type: none"> <li>Strengthened our CEO's Management by Wondering Around and operated the company-wide Safety and Environment Committee</li> <li>Offered basic training on workplace safety to all employees</li> <li>Introduced standardized work procedures and experience-based training</li> </ul>	<ul style="list-style-type: none"> <li>Establish work standards and strengthen employee education and training</li> <li>Launch capacity-building initiatives for managers and supervisors</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen the management accountability of the top management</li> <li>Establish a workplace safety training system for all employees</li> <li>Establish a safety culture</li> </ul>	P. 34-39 (DMA-Occupational health and safety, G4-LA5, LA6, LA7, LA8)
	Reduce workplace safety and environmental accidents to "zero"	<ul style="list-style-type: none"> <li>Set precision assessment and management standards for high-risk equipment</li> <li>Conducted planned/theme-based assessments on workplace safety</li> <li>Built the Blocking System</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen the shop-floor risk factor review system</li> <li>Take preliminary review procedures (SE-Gate) to secure equipment safety</li> </ul>	<ul style="list-style-type: none"> <li>Secure workplace safety and business continuity by strengthening preliminary risk assessments, reviews and improvements</li> </ul>	
	Promote employee health and safety	<ul style="list-style-type: none"> <li>Operated a hyperlipidemia management program and other health promotion initiatives</li> </ul>	<ul style="list-style-type: none"> <li>Operate a metabolic syndrome management program and strengthen health promotion initiatives</li> </ul>	<ul style="list-style-type: none"> <li>Promote employee health through occupational disease prevention and health management programs</li> </ul>	
Shared Growth with Suppliers	Establish fair trade conditions	<ul style="list-style-type: none"> <li>Expanded the signing of standard subcontracting agreements</li> <li>Strengthened preliminary/follow-up reviews on subcontracts</li> <li>Improved payment terms for small/medium-sized suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Increase investment resources for shared growth</li> <li>Strengthen the prevention of anti-trust transactions</li> </ul>	<ul style="list-style-type: none"> <li>Establish reasonable and fair transaction practices by abiding by regulations and guidelines</li> </ul>	P. 40-45 (DMA-Anti-trust practices, G4-SO7)
	Strengthen suppliers' fundamental competitive edge	<ul style="list-style-type: none"> <li>Provided financial support and technological, management and training support</li> <li>Conducted CSR assessments of suppliers</li> <li>Defined the scope of CSR management on our U.S. branch suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Expand the scope of suppliers subject to CSR management</li> <li>Expand support for shared growth and pinpoint additional projects to be undertaken</li> </ul>	<ul style="list-style-type: none"> <li>Develop a sustainable industrial ecosystem by mutually improving the competitive edge of LG Hausys and suppliers</li> </ul>	
	Ensure open communication	<ul style="list-style-type: none"> <li>Improved the transparency/standardization of work procedures by upgrading the online procurement system 'OPEN System' and strengthened communication channels</li> <li>Developed a tier 2 supplier support system by introducing a mutually-beneficial payment system</li> </ul>	<ul style="list-style-type: none"> <li>Increase the number of banks that support our mutually-beneficial payment system</li> <li>Award top-performing suppliers through productivity support for tier 1 suppliers</li> <li>Monitor the status of payment support provided to tier 2 suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen the basis for shared growth and establish a sound collaboration culture</li> </ul>	
Social Contribution	Facilitate leadership programs	<ul style="list-style-type: none"> <li>Dokdo Natural Preservation Zone Jikimi Initiative (2009- present)</li> <li>Make a Happy Space (14 locations)</li> <li>Social contribution for patriots (Yun Bong-Gil Memorial Hall)</li> </ul>	<ul style="list-style-type: none"> <li>Improve the quality of programs and strengthen their operation                             <ul style="list-style-type: none"> <li>Social contribution for patriots, Dokdo Jikimi Initiative, etc.</li> <li>Evaluate social contribution programs and make improvements</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Operate programs in a sustained and sincere manner in line with mid/long-term plans</li> </ul>	P. 46-51 (DMA-Indirect economic impact DMA-Local community, G4-SO1)
	Diversify social contribution initiatives	<ul style="list-style-type: none"> <li>Improved the residence for men of national merit (Extended its scope to include Korean War veterans)</li> <li>Assisted in the recovery of damaged property from typhoon Chiba</li> </ul>	<ul style="list-style-type: none"> <li>Discover and implement new programs                             <ul style="list-style-type: none"> <li>Employee-engaging programs, etc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Develop and operate programs that put our human resources, budget and other business capabilities to their best use and take our inherent business characteristics and stakeholders into account</li> <li>Expand initiatives that help address social issues</li> </ul>	
	Share with local communities	<ul style="list-style-type: none"> <li>Make a Happy Space (2009-present : 15 locations), LG Happy Day, Briquettes of Love volunteer program, One Company One Village/One Stream/One Mountain campaigns</li> </ul>	<ul style="list-style-type: none"> <li>Promote employees' engagement in talent donation</li> <li>Continue to make contributions to local communities</li> </ul>	<ul style="list-style-type: none"> <li>Promote communication with wide-ranging stakeholders and improve our corporate image through sharing with local communities</li> </ul>	

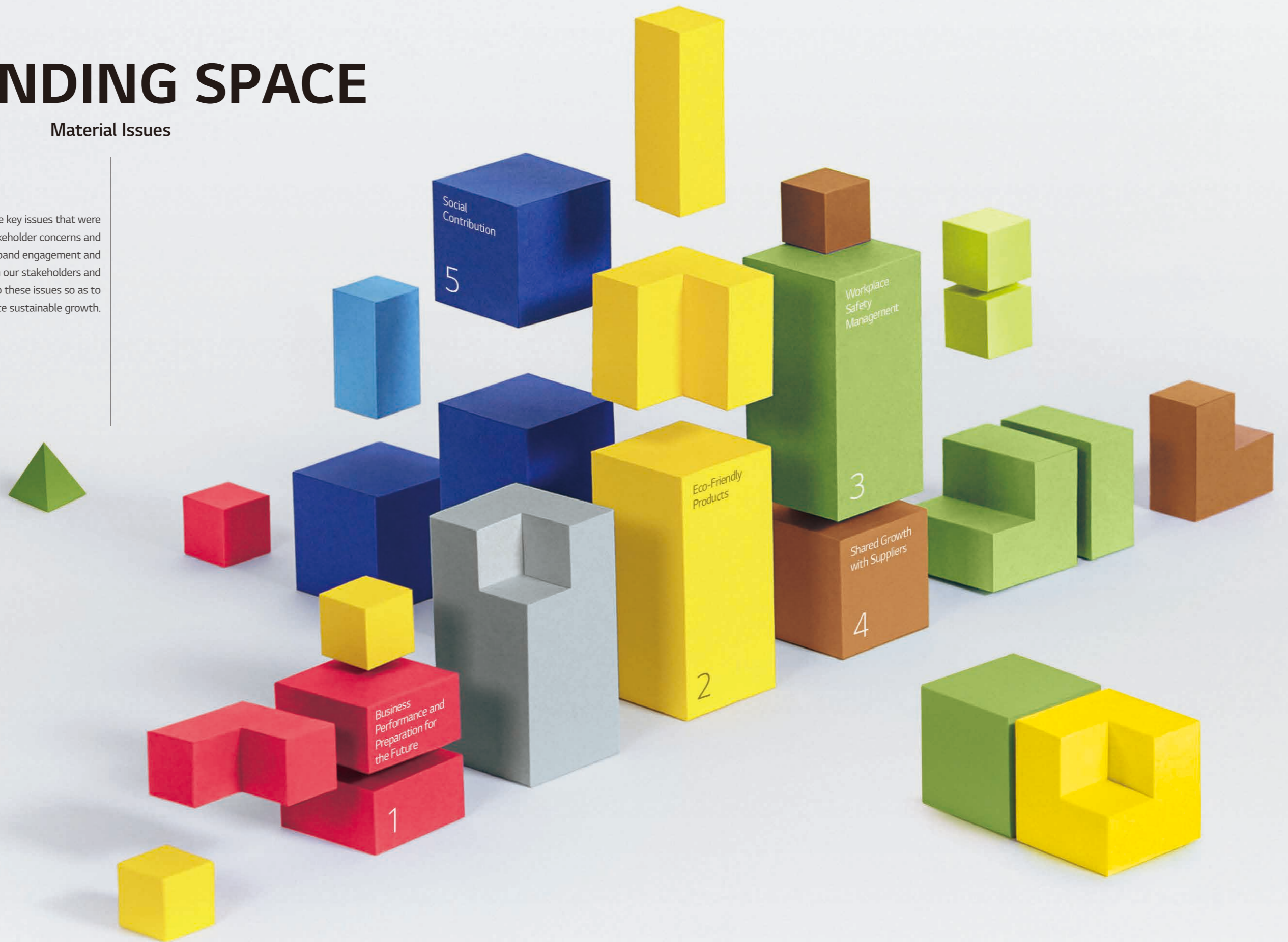




# EXPANDING SPACE

## Material Issues

We focus on the key issues that were chosen based on stakeholder concerns and requirements to expand engagement and communication with our stakeholders and to develop solutions to these issues so as to advance sustainable growth.



## Business Performance and Preparation for the Future

In the face of such challenging business conditions of the sluggish growth of the upstream market and the intensifying competition in respective business areas, we posted KRW 2928.3 billion in sales and KRW 157.0 billion in operating profits.

We attribute this success to our commitment to product, cost and sales innovation aimed to bring fundamental change to our business structure. Our future priorities will be to focus on the automotive materials and components business and position our building & decorative materials business in the high-end segment. To this end, we plan to prepare for the future by reinforcing our R&D operations and expanding our overseas business.

### Key Achievements in 2016

<b>Sales</b> (Unit: KRW 100 million)	<b>29,283</b>	<b>R&amp;D expenditures</b> (Unit: KRW 100 million)	<b>636</b>
<b>Sales of overseas business</b> (Unit: KRW 100 million)	<b>9,270</b>	<b>Certificates and awards granted in Korea and abroad</b> (On an accumulated basis, as of Apr. 2017 / Unit: No. of occasions)	<b>15</b>
<b>Ratio of overseas business in total sales</b> (Unit: %)	<b>31.6</b>	<b>Awards granted at the global top three design awards*</b> (On an accumulated basis, as of Feb. 2017 / Unit: No. of occasions)	<b>50</b>



\* iF, IDEA, and reddot Awards

### Achievements & Goals

#### 1 Focus on the automotive material and parts business

**Key achievements in 2016**

- Expanded the automotive lightweight component line-ups
- Initiated the operation of the automotive skin plant in North America

**2017 plans**

- Accelerate the growth of our lightweight component business
- Develop differentiated automotive skin products and expand the market

**Mid/long-term goals**

- Lead the lightweight component market
- Expand the global automotive skin business

#### 2 Position the building & decorative materials business in the high-end segment

**Key achievements in 2016**

- Developed differentiated energy-saving and premium products
- Increased the sales of high-insulation windows, insulation boards and engineered stone

**2017 plans**

- Constantly improve the performance of energy-saving products and strengthen differentiated new premium products

**Mid/long-term goals**

- Continue to lead the domestic building & decorative materials market and increase the ratio of overseas business to 50% and above

#### 3 Strengthen the R&D competitive edge

**Key achievements in 2016**

- Automotive materials and parts
  - Diversified automotive lightweight components and materials
  - Developed automotive skin produced based on lamination technology that reduces the emission of toxic gas
- Building & decorative materials
  - Developed PF insulation boards that prevent the spread of fire (Honored with the Grand Prize at the Fire Industry Awards)

**2017 plans**

- Automotive materials and parts
  - Expand the automotive lightweight parts line-up
  - Develop automotive skin that mimics the feel of natural skin
- Building & decorative materials
  - Develop products that improve ease of use (e.g. IoT-enabled windows)

**Mid/long-term goals**

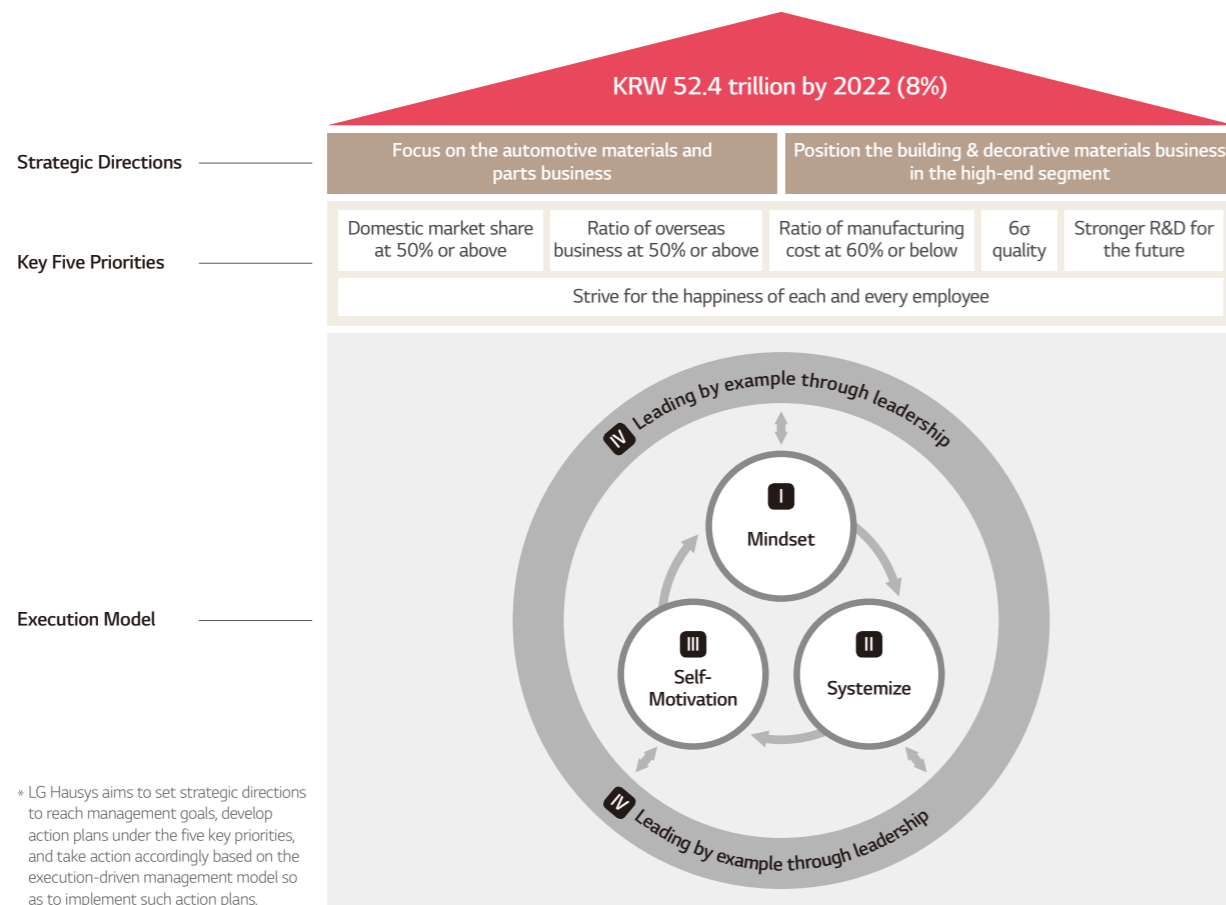
- Strengthen technology in automotive lightweight components (Expand the lightweight parts line-ups)
- Develop next-generation building & decorative materials by researching future residential environments
- Strengthen open innovation to secure key/source technology and prepare for the future



ISSUE 1

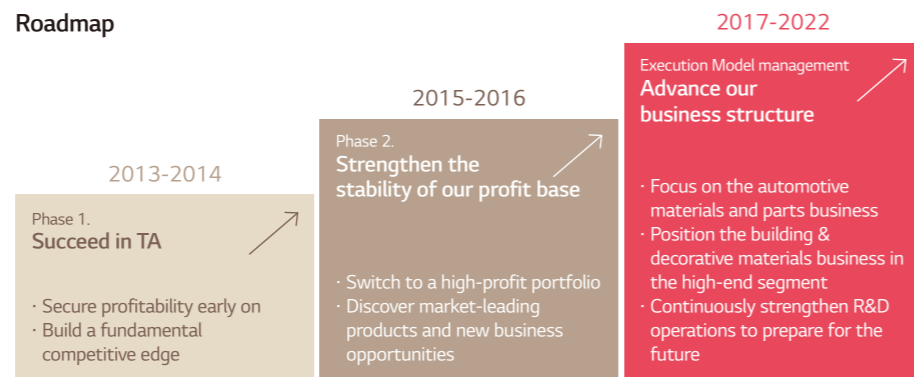
## Management Strategy

Over the past two years, we have remained focused on advancing our business structure : we modified our existing business structure and explored new business opportunities. Now that we set our overarching strategic directions to focus on the automotive materials and parts business and to position our building & decorative materials business in the high-end segment, we will implement the five key priorities. To this end, we will be increasing our domestic market share to 50% and above, increasing the share of our overseas business to 50% and above, improving our production costs, achieving 6σ quality, and continuously strengthening our R&D to prepare for the future.



\* LG Hausys aims to set strategic directions to reach management goals, develop action plans under the five key priorities, and take action accordingly based on the execution-driven management model so as to implement such action plans.

### Roadmap



ISSUE 2

## Market Outlook and Business Performance

At LG Hausys, our business portfolio consists of building & decorative materials, high-functional materials and automotive materials and parts. Building on our endeavors to expand our business presence and tap into new markets, our sales grew by 9% from 2015.

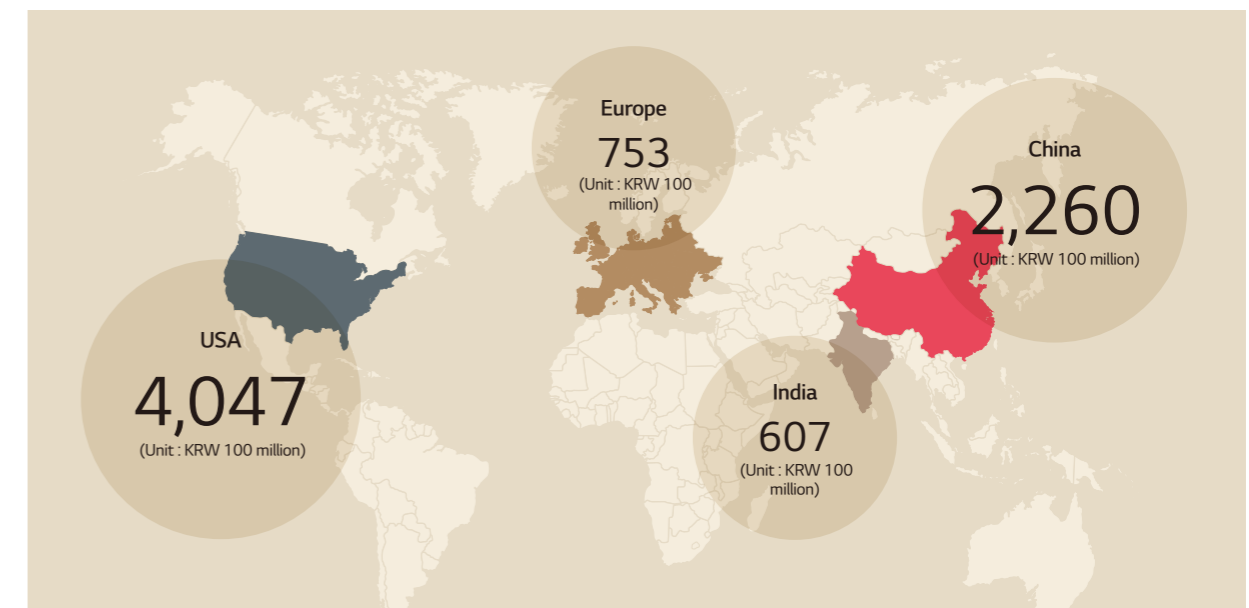
### Market Conditions

Throughout Korea's construction market, key construction indicators – y-o-y housing transactions and apartment sales - rather deteriorated in 2016 due to a Korean governmental policy to restrict the overheated real estate market. However, as the number of older apartment buildings increases, demand for housing renovation is on the quantitative rise. This warrants our forecast that the B2C business will grow mainly in providing total interior solutions. Meanwhile, the government continues to tighten regulatory standards in reducing energy consumption and building green houses to reduce carbon emissions, and in relation to building evacuation and fire-proof and fire-resistance buildings. As such, we expect to witness a growing demand for energy-saving windows and insulation materials with exceptional insulation performance and fire safety.

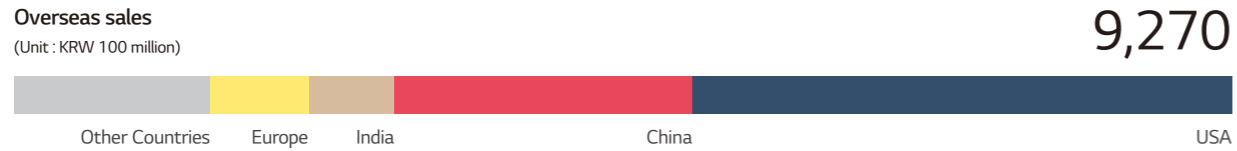
While the Chinese construction market is expected to suffer sluggish growth due to an oversupply of housing, the Chinese government's eco-friendly and energy-saving construction policy may boost the demand for high-insulation products that cater to local needs. In North America, the recovery of the construction economy is leading to increases in new housing starts, and demand for green and high-end interior materials is expected to continue in line with increasing consumer demand for sophisticated residential materials.

Our automotive materials and parts, as well as the high-functional materials business, is expected to grow in the overseas markets, mainly in North America and emerging countries. As more and more lightweight vehicles are launched in the market, there will be an increasing demand for durable, lightweight components to improve fuel efficiency and cater to the aesthetic values of eco-friendliness and design. In the home appliances market, India and other emerging markets are forecast to grow primarily in the high-price premium segment.

### Our Performance by Region



ISSUE 2



### USA

North America is home to the world's largest decorative and automotive materials market, and our localization strategy focuses on acrylic solid surfaces, automotive skins and other highly sought after products. We have HI-MACS (acrylic solid surface) and engineered stone plants in the State of Georgia, and our automotive skin plant initiated its operation in 2016 to further increase our share in the U.S. market.

Share in our 2016 regional sales

# 44%

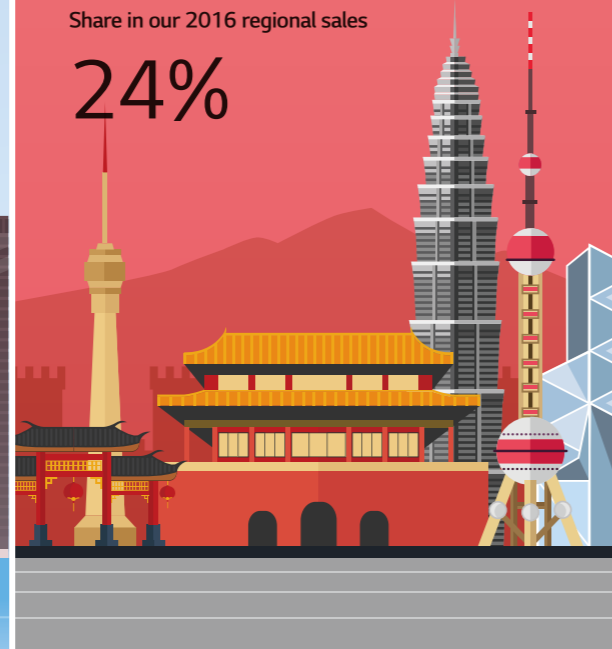


### CHINA

In China, our business strategy focuses on the materials business – automotive materials and parts and high-functional materials – along with building & decorative materials that include windows and flooring. Our unrivaled product quality and eco-friendliness was widely recognized when we became the first ever foreign business to make it to the 'Top 10 Green Building Materials Brands' for four consecutive years in 2016. Presently, we rank first in market share in China in the home appliance film and flooring product segments, and we also rank first among foreign businesses in the window segment, further solidifying our position in the mid-to-high price premium market. As part of our localization strategy, we initiated the operation of our Tianjin and Wuxi plants to deliver differentiated value to customers - from production to distribution. We are also steadily improving the environmental and safety equipment at those plants to provide a greener workplace for our employees.

Share in our 2016 regional sales

# 24%

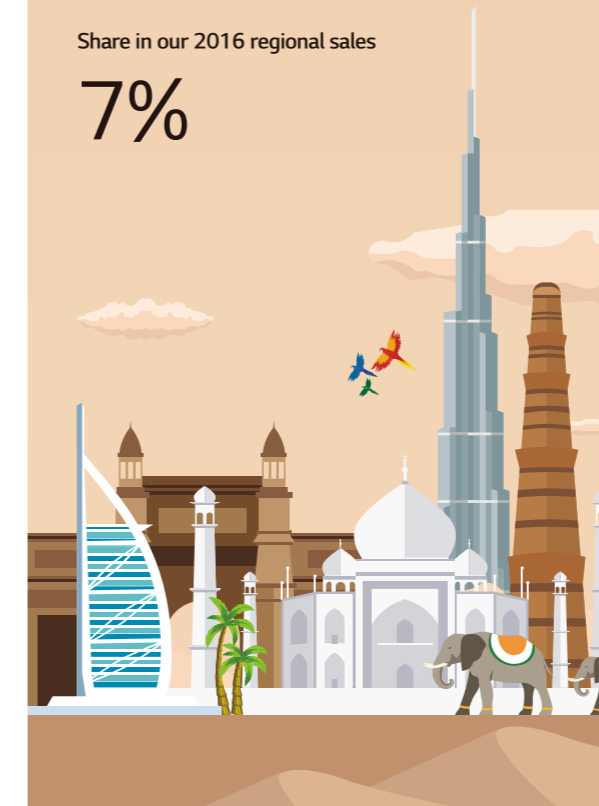


### INDIA

With a population of 1.2 billion, India is the world's largest emerging market and is considered to have even greater potential than China. This is why we at LG Hausys are actively advancing into this market, especially in the home appliance film and surface materials segments. We are launching products that satisfy the design trends of the Indian market, raising our brand awareness through customized designs and regularly-hosted seminars, and discovering new customers. We are solidifying our No. 1 market share in the Indian home appliance film segment through our swift and proactive response to customer needs. We will strengthen our No. 1 status by focusing our marketing capabilities in the HI-MACS (acrylic solid surface) segment in the upcoming years.

Share in our 2016 regional sales

# 7%



### EUROPE

Europe is literally the arena of competition among leading companies in the decorative and automotive materials and components industries. We established our sales branch in Germany and we are competing against these global players in Europe. We paved the way to fully tap into the furniture film segment by forming partnerships with large furniture companies in Western Europe and processing companies in Italy, while building strong growth engines by diversifying the sales channels for our HI-MACS (acrylic solid surface) products. Furthermore, we are working with European automobile makers through our advancement into the automotive skin segment, and we plan to tap into the automotive materials and parts market in Europe by delivering products that exceed the quality requirements of our customers.

Share in our 2016 regional sales

# 8%



### OTHER COUNTRIES

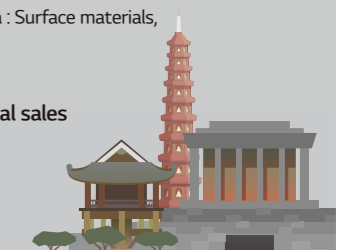
We are experiencing rapid growth - mainly in the decorative materials market - in such emerging regions as the Middle East and Southeast Asia. Driven by our full-fledged localization strategy (attending local exhibitions and developing products that cater to the lifestyle specifications of local customers), we are successfully tapping into these emerging markets.

Flagship Products

- Middle East, Southeast Asia : Surface materials, Wallpaper, Flooring, etc.

Share in our 2016 regional sales

# 17%



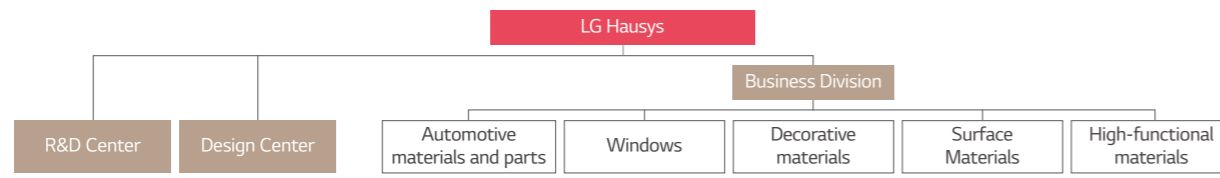
## Strengthening R&D Activity and Capability

### R&D Activity

Our R&D Center takes the lead in closely aligning its research with such business areas as automotive materials and parts, building & decorative materials, and high-functional materials, while developing customer-friendly products.

### R&D Organization

At LG Hausys, our R&D organization consists of the R&D Center, the Design Center, and the research & design PJTs by business division. The R&D Center develops source technology, discovers new business opportunities and builds preparedness for the future, while the Design Center analyzes design trends and studies design solutions. The research & design PJTs, under the five business divisions, undertake short-term projects within their relevant business divisions.



Organization	Responsibility
R&D Center	<ul style="list-style-type: none"> <li>Discover growth engines through fundamental/platform technology research while undertaking research projects on new technology/business areas and commercializing their outcomes</li> <li>Support reliability studies and analyses to improve the competitive edge in product quality</li> <li>Prepare for the future in the mid/long-term (in existing business areas)</li> </ul>
Design Center	<ul style="list-style-type: none"> <li>Establish design guides by predicting shifting design trends and research tailor-made designs and solutions</li> <li>Discover commercialization projects from the design perspective</li> </ul>
Automotive Materials and Parts	<ul style="list-style-type: none"> <li>Research lightweight materials based on composite material processing and structural design technology, and develop green materials and functional fabric</li> <li>Develop designs that improve fabric colors and aesthetic qualities (texture, etc.)</li> </ul>
Windows	<ul style="list-style-type: none"> <li>Develop energy-saving/noise-attenuation/insulation high-performance windows as well as laminated glass through inorganic thin film materials and lamination technology</li> <li>Design window frame structures, colors and handles</li> </ul>
Decorative Materials	<ul style="list-style-type: none"> <li>Research eco-friendly/functional materials based on polymer formulation and processing technology as well as energy-saving insulation materials</li> <li>Design residential sheets, flooring, wallpaper, commercial flooring, Woozen, etc.</li> </ul>
Surface Materials	<ul style="list-style-type: none"> <li>Develop the formulations of acrylic solid face ingredients and the process to create patterns that are similar to those of native stone</li> <li>Design the pattern and colors of surface materials</li> </ul>
High Functional Materials	<ul style="list-style-type: none"> <li>Develop home appliance &amp; furniture films based on polymerization and lamination processing technology</li> <li>Design the patterns and colors of decorative &amp; interior films and furniture films</li> </ul>

### R&D Achievements in 2016

At LG Hausys, our R&D is focused on strengthening the structural competitive edge of our existing business operations while exploring new business areas for our future growth. We are establishing a user-centered development system to deliver products that maximize customer satisfaction. Our R&D endeavors will allow us to develop customer-friendly products with exceptional eco-friendliness and safety and to emerge as a true global leader.

**Windows that improve customer convenience** • We developed windows based on our technology that allows for easy-opening and soft-closing to make them more user friendly (easier to open/close, user safety)

**Formulation technology for insulation materials that prevent the spread of fire** • We developed fire-resistant insulation materials (fire belt/fire door), and they were honored with the Grand Prize at the Fire Industry Awards hosted by the Ministry of Public Safety and Security.

R&D expenditures  
(Unit : KRW million)



R&D staff\* between 2014-2016  
(Unit : No. of persons)



\* Staff entirely dedicated to our R&D operations (R&D Center, Design Center, Research and Design PJT in business divisions)

### Automotive skin and lightweight parts •

- (Automotive skin) We developed automotive skin lamination technology, which enabled us to reduce the emission of toxic gas by 50% against its last year's version.
- (Lightweight parts) We secured lightweight material technology that uses glass fiber and are expanding our mass-production spec-in parts while developing cost-saving technology on lightweight parts based on carbon fiber.

### Expanding R&D Investments

To recruit and foster qualified R&D employees who hold MA degrees and PhDs in Korea and abroad, we engaged in wide-ranging events and programs, including the LG Techno Conference and industry-academia research courses. We also cooperate with academia, government-invested research institutes and other companies to reinforce our R&D capacity.

### Recruiting and Fostering Outstanding R&D Talent in Korea and Abroad

**LG Techno Conference** • We attend the LG Techno Conference to recruit researchers with master's degrees and PhDs as a way to secure a talented R&D workforce. In 2016, we mainly hired researchers in the fields of polymer and automotive materials and parts. We are determined to do our utmost to seek out qualified talent so that we can secure competent R&D workforce.

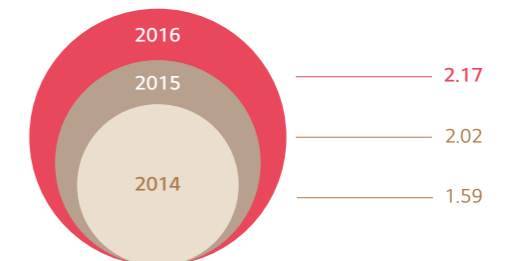
**Customized Industry-Academia Research Courses** • We opened customized R&D courses with Korea University and Hanyang University. We assist undergraduates whose passion is to conduct R&D in continuing their education into graduate courses. When these students join LG Hausys after graduation, we then assign them research projects that are closely aligned with their graduate courses so that we can foster talent with job readiness.

### Establishing Ties with Academia and Research Institutes

We cooperate with such prestigious universities in Korea as the Seoul National University and Korea University while conducting joint research with government-invested research institutes (Korea Institute of Civil Engineering and Building Technology, Korea Conformity Laboratories, etc.). Through such external collaboration, we continue with our R&D endeavors to seek out new technology that will evolve into our future growth drivers.

**Signing an MOU with the Korea Conformity Laboratories** • In June 2016, we signed a 'memorandum of understanding (MOU) to research next-generation housing' with the Korea Conformity Laboratories (KCL) with an aim to develop future housing solutions. Since then, we have been 'conducting joint research on the development of next-generation building and decorative materials' and 'developing area unit testing/certification systems.' We believe that our collaborative outcomes will be broadly used in verifying new technology and conducting R&D in the green housing market (zero-energy building, etc.).

R&D expenditures against sales (Unit : %)



## Strengthening Design Activity and Capacity

We take the customer's perspective in understanding market trends and designing products that customers most desire. We have the largest design center in Korea's building materials market and we defined our own unique design culture 'Design Innovation'. We are also committed to fostering talented designers.

### Key Activities and Achievements

#### Earning Prestigious Design Awards

As a result of our R&D endeavors that aim to deliver new value to customers, our unrivaled design capacity has been widely recognized at world-renowned reputable domestic and international awards.

Honored at the World's Top 3 Design Awards (As of Feb. 2017, On an Accumulated Basis)

(Unit : No. of certificates)



iF Design Award  
31



reddot Design Award  
13



IDEA Design Award  
6

#### Analyzing Trends to Develop Market-Leading Products

Our 'Design Trend Seminar' and 'Trend Forum' represents our commitment to creating market-leading products.

**Design Trend Seminar** • As the first of its kind initiated by LG Hausys, our Design Trend Seminar celebrated its 17th anniversary in 2016. Every year, nearly 1,000 design experts attend this seminar to share their views on domestic and international social/cultural issues, consumer lifestyles, and global design trends so as to forecast future design trends. We will identify shifting market conditions and trends and reflect them into our designs so that we can exert an even broader influence over the automotive, electronic and IT and interior industries.

**Design Forum** • Our Trend Forum enables us to analyze market and consumer trends specific to respective business divisions to present product concepts catering to customer needs. This forum uses in-depth trend research outcomes to design new products through the customer's perspective, and set the course of our design strategy over the mid/long-term. Furthermore, the forum allows us to deliver tailor-made design solutions by approaching respective regions based on their local trends.

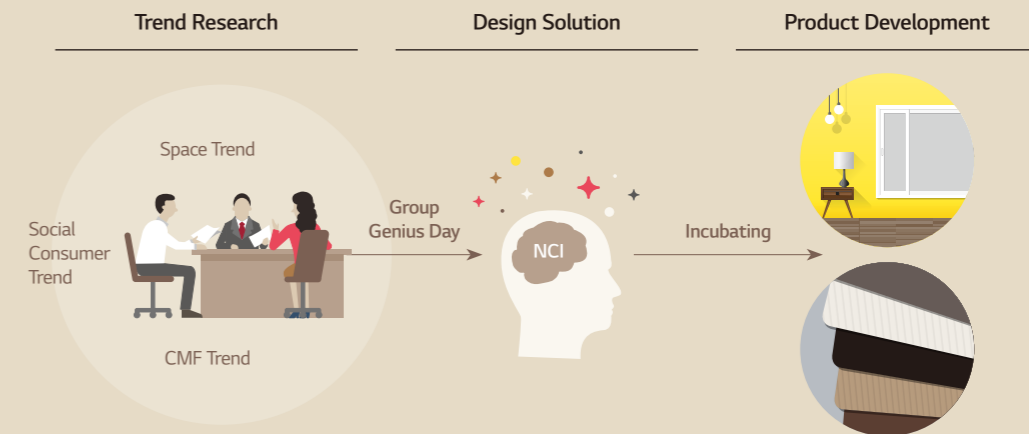
#### Collaboration with Well-Renowned Designers

We collaborate with world-acclaimed designers, including the well-known industrial designers Marcel Wanders, Karim Rashid, Alessandro Mendini, the architect Zaha Hadid, and the Hanbok designer Lee Hyo-Jae, to present to our customers unique designs that set us apart from the competition.

SPECIAL ISSUE

Preceding Development Driven by Customer Insights : Design Innovation

Our Design Innovation starts with the ideas suggested by our designers : these ideas are developed through our incubation system and then are translated into the products that are launched in the market. The products developed through this process are extremely well-received among customers.



TREND RESEARCH	Social Consumer Trend	Pinpoint the underlying psychology behind today's ideal home environment based on the analyses of social/environmental changes and consumer lifestyles, and use the outcomes to identify strategic implications
	Space Trend	Identify diverse factors that carry implications regarding spatial changes to predict the appearance of home interiors in the near future, and study spaces from the LG Hausys product-integrative perspective.
	CMF Trend	Discover and suggest new materials that deliver customer value by analyzing CMF (Color, Materials, Finishing) trends and studying material-specific trends.
DESIGN SOLUTION	Group Genius Day	Host brainstorming sessions attended by designers from diverse fields on the outcomes of trend research and generate solutions in a collective intelligence program format
	NCI System	Adopt the customers' perspective to freely suggest New Creative Ideas
	Incubating	Identify diverse ideas through the NCI system and refine them through expert mentoring to eventually develop them into pilot products
PRODUCT DEVELOPMENT	The product ideas that have evolved along the way are materialized into final products and presented to customers.	



## Eco-Friendly Products

In line with the continuously increasing social demand for products devoid of the risk of any health or environmental harm, as well as tightening and widening environmental regulations, our sales of green products is growing accordingly. At LG Hausys, we aim to deliver natural green products and materials, provide systems and solutions that maximize energy efficiency, and evolve into a more accessible company by interacting with our customers in a trustworthy and heartfelt manner.

### Key Achievements in 2016

**Certified green products\***  
(Unit: No. of products)

**134**

**Ratio of new green products\* in sales**  
(Unit: %)

**23.7**



\* Korea Eco Label, HB Mark, and Carbon Reduction Label

\* The calculation of the sales of green new products is based on decorative materials and windows

### Achievements & Goals

#### Expand the green product market

1

##### Key achievements in 2016

- Launched new products : ZEA wallpaper Fresh, ZEA Sarangae, ZEA Maru Wood, furniture films, etc.

##### 2017 plans

- Expand green product line-ups

##### Mid/long-term goals

- Broaden functional products made from eco-friendly materials
- Increase the sales of products made from eco-friendly materials

#### Expand energy-saving products

2

##### Key achievements in 2016

- Launched new products : Super Save series 3,5,7, and PF fire belts

##### 2017 plans

- Widen high-insulation windows that increase customer convenience and boost the credibility of PF insulation boards

##### Mid/long-term goals

- Broaden new energy-saving products
- Increase the sales of energy-saving products

ISSUE 1

## Developing Eco-Friendly Products

At LG Hausys, our products are created on the basis of three key values : 'Eco-Friendly' that uses green materials to deliver a healthy and pleasant living space, 'Energy-Saving' that prefers high-efficiency products and lightweight materials to reduce energy consumption, and 'Human-Friendly' that helps address such eminent social issues as preventing fires and reducing inter-floor noise.

Research Area	Key Research Considerations
Energy-saving, fire safety	<ul style="list-style-type: none"> <li>Maximize the insulation performance of windows in addition to reducing the energy use of buildings</li> <li>Secure high-insulation/long-term insulation performance and fire safety</li> </ul>
Green building & decorative materials	<ul style="list-style-type: none"> <li>Use corn-based materials to develop products that are safer for people and the environment</li> <li>Develop flooring materials that help reduce inter-floor noise</li> </ul>
Eco-friendly fabric	<ul style="list-style-type: none"> <li>Develop highly-durable and contamination-resistant green fabrics through the use of bio-based plastics to contribute to reducing GHG emissions</li> </ul>
High-strength lightweight materials	<ul style="list-style-type: none"> <li>Develop automotive lightweight materials and research methods to improve shock-resistance performance to contribute to increasing mileage and fuel efficiency</li> </ul>

We use natural and recycled materials, increase the sales of energy-saving products, and develop eco-friendly technology. In 2017, we will continue to strengthen our green product solutions by broadening our ZEA product line-ups and developing high-performance semi-non-combustible insulation materials.

Category	Products	Future Plans
Eco-friendly materials	PLA (corn-based) materials	ZEA line-up (flooring, wallpaper)
	Materials that help reduce CO <sub>2</sub> emissions	Olefin materials, bio automotive skin Neuzen
	PET materials	Furniture films, home appliance films ECO Series
Energy-saving	Energy-saving windows	Super Save series 3, 5, 7 (high-performance windows graded 1st in energy consumption efficiency)
	Laminated glass	High-performance double Low-E glass (insulation performance : 1.0W/m <sup>2</sup> ·k or below)
	Lightweight components	Glass fiber-based lightweight automotive parts (undercover, seat frame, bumper back beam)
Functional products	Improvement of the living environment (Reducing inter-floor noise and lightweight floor impact noise, non-slip)	'ZEA Sorijam' flooring that helps reduce noise in everyday life 'ZEA Sarangae', 'ZEA Jayeonae' flooring with improved non-slip performance
	Fire safety (Semi-non-combustible, fire-resistance performance)	High-performance semi-non-combustible PF insulation materials PF panels (fire-proof doors, metal panels)
	Anti-bacterial performance	Contamination-resistant decorative films
		Anti-bacterial decorative films
		Expand application to include highly fire-resistant PF panels (fire-proof doors, metal panels)

ISSUE 2

## Green Product Awards and Certifications

Our products are widely recognized both in Korea and abroad for their excellence and contribution to broadening a culture of eco-friendliness.

### Awards

- Joined the list of the Top 10 Eco-friendly Real Estate for four consecutive years (2014-2017, supervised by the Chinese National Construction Company Association)
- [ZEA Sorijam, PF insulation boards] Honored as the 'Green Product of the Year' chosen by consumers for three consecutive years (2014-2016, supervised by the Korea Green Purchasing Network)
- [ZEA Maru, ZEA Fresh, House (flooring)] Obtained the Korean Green Star certification granted to green products (2017, Korea Management Registration)
- [PF fire belts] Won the 'Minister of Public Safety and Security Award' at the Fire Industry Awards (2016)
- [Furniture films] Obtained the World Class Product certification (2016)

### Domestic Certifications

(Unit : No. of certificates)

Category		2014	2015	2016
Eco-friendly products	Korea Eco Label	71	54	79
	HB Mark	27	40	23
	Carbon Reduction Label (Low-carbon certification)	14 (3)	19 (2)	30
<b>Total</b>		112	113	134
Energy efficiency grade scheme for windows (grade 1-5)		265	354	430

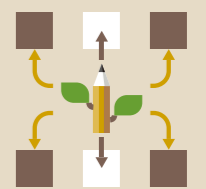
### Overseas Certifications

Category	Product
Building & decorative materials	Flooring [Tiles, homogeneous sheet] Became FloorScore-certified (U.S. eco-friendliness certification system for products related to indoor air quality)
	Wallpaper [Five silk wallpaper brands including 'BESTIE', 'ZINNIA'] Placed in the highest Baby-Class category under Oeko-tex® Standard 100, an European certification for the quality of green textile products
	Acrylic solid surface Became LEED-certified (Green building certification supervised by the U.S. Green Building Council) Obtained the SCS certification for green products (Supervised by the SCS Global Service of the U.S.)
High-functional materials	Interior films : Obtained the Japanese green certification F☆☆☆☆ (formaldehyde-free) (Supervised by the Japan Testing Center for Construction Materials)
	Home appliance materials : Home appliance films and vacuum insulation materials obtained the RoHS certification while vacuum insulation materials were REACH-certified (EU's chemical substance management system)
Automotive materials and parts	Automotive sheet skin : Certified with Oeko-Tex® Standard 100, an European certification for the quality of green textile products

SPECIAL ISSUE

Product Life Cycle Assessment (LCA)

At LG Hausys, we perform life cycle assessments (LCA) to provide quantified environmental data in each phase of the product life cycle, from manufacturing and distribution to use and disposal. We have gathered data on our windows, Sum Tile, flooring (sheets and tiles for export markets), PF insulation boards, and wallpaper (ZEA Fresh) ECONO and KANGGREEN based on the six environmental factors of resource consumption, global warming, ozone layer impact, acidification, eutrophication, and photochemical oxide generation. We plan to extend the scope of these assessments to analyze and manage the environmental footprint of our products.





## ECO-Collection

We use natural materials and recycled resources to deliver systems and solutions that maximize energy efficiency with an aim to provide a trustworthy and impressive customer experience. Our commitment will continue to increase the sales of our new green products and strengthen our green product solutions.

### 1. Wall covering/materials

ZEA Fresh wallpaper

- Use corn-based resin (PLA) on the surface layer
- Placed in product class 1 under the European textile product quality certification Oeko-Text, satisfy the highest HB grade criteria in TVOC (total volatile organic compounds)

Sum Tile

- Modulate indoor humidity, absorb harmful substances and deodorize

### 2. Interior films

- Use eco-friendly ink : BTX (benzene, toluene, and xylene) is almost non-existent
- Reduce the detection of phthalate-based plasticizer and HCHO (formaldehyde) to almost zero

### 3. Flooring

ZEA Sorijam

- Reduce lightweight floor impact noise generated in daily life\* by 30% against LG Hausys' plywood flooring<sup>1)</sup>, Help reduce shock on the knees when walking indoors by 40%<sup>2)</sup>
- Cut heating costs by 30% thanks to outstanding thermal conductivity which is 70% higher than LG Hausys' laminated flooring<sup>3)</sup>
- Lightweight floor impact noise : Noise generated on the floor by relatively light and hard impact (e.g. sound of sliding chairs)

ZEA Maru Wood

- SEO-graded premium eco-friendly flooring whose surface layer was made of natural wood and corn-based materials
- Premium flooring that delivers the qualities of natural wood texture and color by brushing natural hardwood

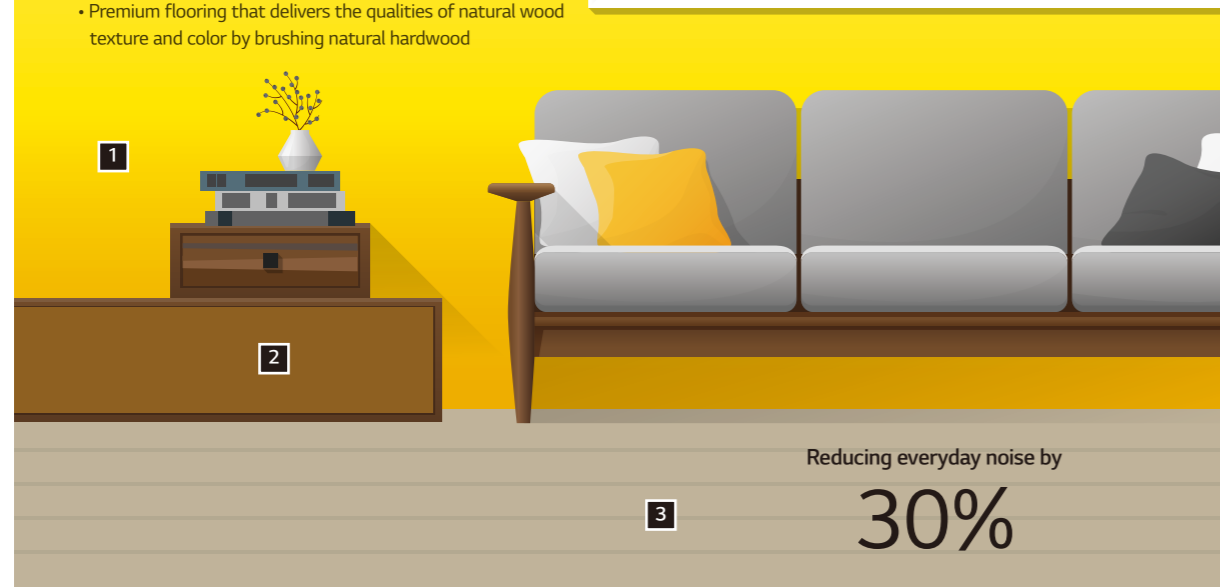
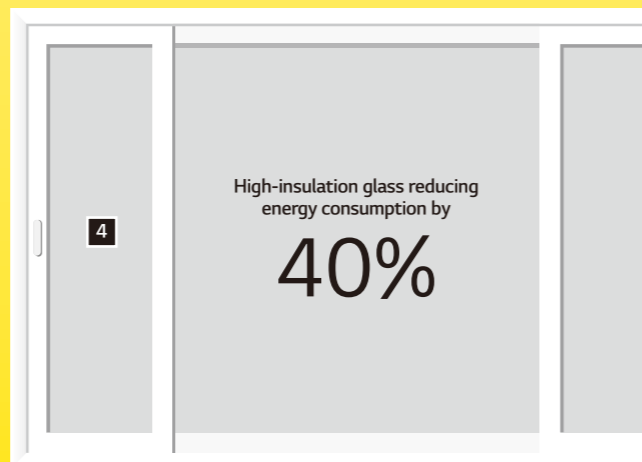
### 4. Windows

Super Save

- Graded 1 in energy consumption efficiency, reduce energy use by 40% against old windows

Super Low-E glass

- Deliver insulation performance 2.3 times higher than general glass



Source

- 1) Research paper from the Daewoo Institute of Construction Technology (2013)
- 2) Research paper from the Industry-Academia Research Institute, Pohang University of Science & Technology (2002)
- 3) Research report from the Korea Advanced Institute of Science & Technology (2008)
- 4) 'Energy Analysis Report (2011)' from the Passive House Institute Korea

## What is Poly Lactic Acid?

PLA is made from materials extracted from corn, sugarcane and other plants, and is known for its eco-friendliness and safety. At LG Hausys, we developed and are supplying the world's first PLA-based green flooring and wallpaper, which demonstrates our firm commitment to delivering products that benefit both customers and the environment.

### 5. Home appliance materials

PVC-free home appliance films

- Use eco-friendly resin (PET materials)

Vacuum insulation

- Improve energy consumption efficiency by minimizing thermal loss

### 6. Decorative sheets

Furniture films

- Use eco-friendly resin : Heavy metals (lead, mercury, cadmium, hexavalent chrome, and arsenic) are rarely detected within products
- Use eco-friendly ink : BTX (benzene, toluene, and xylene) is almost non-existent

### 7. Acrylic solid surface

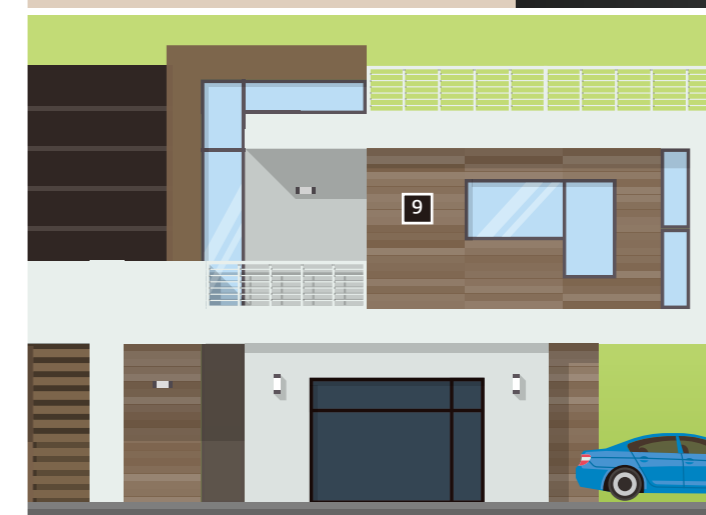
HI-MACS LE

- Produced through the use of recycled chips and thus help reduce the discharge of waste
- Alleviate concerns over bacterial reproduction based on remarkable hygiene and durability performance

### 8. High-performance insulation

PF boards

- Use semi-non-combustible materials that generate less toxic gas in case of fire
- Reduce annual cooling/heating costs by up to 20% against general-purpose insulation panels with the same thickness<sup>4)</sup>



### 9. Synthetic wood

Woozen

- Use such natural materials as wood chips and wood powder as well as olefin resin adopted for formula bottles and food containers while delivering outstanding durability

### 10. Automotive materials

Eco-friendly automotive skin

- Free from heavy metals and other hazardous substances thanks to the ban on the use of phthalate-based plasticizer

Lightweight parts

- Use glass fiber to reduce weight and to improve fuel efficiency

# Workplace Safety Management

The environmental impact of routine business activities, combined with both significant and minor safety and environmental accidents, give rise to increasing social concern regarding workplace safety. Furthermore, local communities are increasingly interested in these issues and thus are reinforcing their monitoring while governments are taking on a stronger role as a supervisor. At LG Hausys, we set and manage company-wide workplace safety targets. To establish a 'preventive workplace safety management system' that enables us to identify and eliminate risk factors well before any accidents even occur, we perform a wide array of self-reviews to ramp up our system and management and make large-scale investments.

## Key Achievements in 2016

**Investments in safety and fire control improvements**  
(2016/ Unit : KRW 100 million)

**37.4**

**Injury rate**  
(2016 achievement against 2015 / Unit : %)

Reduced by  
**6.5%**

**Total EHS accidents**  
(2016 achievement against 2015)

Reduced by  
**43%**



## Achievements & Goals

### 1 Establish a culture of workplace safety

#### Key achievements in 2016

- Operated the company-wide Safety and Environment Committee
- Reinforced CEO's Management by Wandering Around
- Provided basic workplace safety training to all employees
- Introduced standardized work procedures and experience-based training

#### 2017 plans

- Establish standardized work procedures and reinforce training to prevent any errors made on the part of shop-floor workers
- Strengthen the capacity-building of supervising managers

#### Mid/long-term goals

- Reinforce management accountability at the executive level
- Establish a workplace safety training system for all employees
- Establish a Culture of Safety

### 2 Reduce workplace safety accidents to "Zero"

#### Key achievements in 2016

- Established in-depth analysis and management standards on high-risk equipment
- Performed planned/theme-based assessments on workplace safety
- Created the Blocking System

#### 2017 plans

- Strengthen the on-site risk factor review system
- Operate the preliminary review procedures (SE-Gate) to ensure the safety of equipment

#### Mid/long-term goals

- Secure workplace safety and business continuity by performing preliminary risk assessments and strengthening review and improvement activities

### 3 Manage employee health

#### Key achievements in 2016

- Launched health promotion initiatives, including the hyperlipidemia management program

#### 2017 plans

- Reinforce health promotion initiatives, including a metabolic syndrome management program

#### Mid/long-term goals

- Improve employee health by preventing work-related diseases and providing health care programs



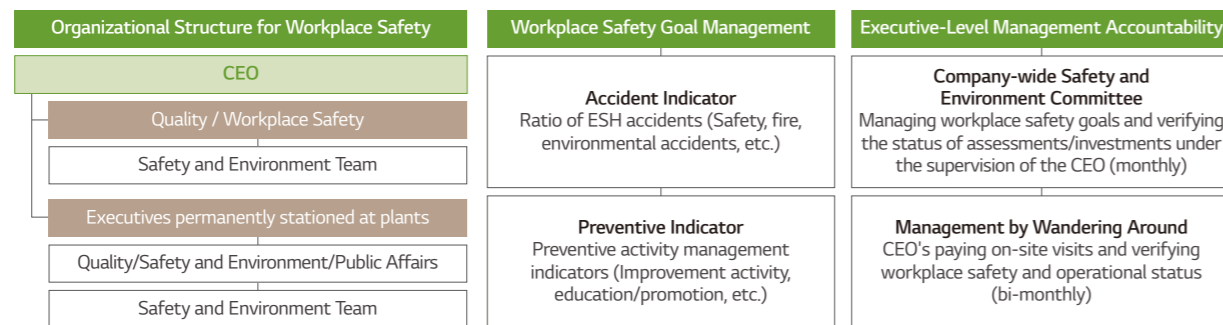
ISSUE 1

## Workplace Safety Operational System

We operate company-wide organizations and goals and strengthen our workplace safety system to create an injury-free workplace. We constantly improve our workplace safety management system in order to enhance the safety of our employees and local communities where we are based.

### Strengthening Management Accountability on a Company-wide and Executive Level

We have developed a company-wide organizational structure and set management goals for workplace safety, and reflect them in performing organizational assessments in order to reinforce the management accountability of workplace safety.



### Building a Workplace Safety Training System

We provide our employees with advanced training courses in line with their previous career and responsibilities to maximize the benefits of such courses and to create a culture conducive to minimizing risks.

Previous Career	Position	Responsibility
<p><b>New hires</b> : Regular work procedures/ Countermeasures for abnormalities  <b>Unskilled employees</b> : Unsafe behaviors, accident cases  <b>Skilled employees</b> : Safety standards for high-risk equipment and risk management measures</p>	<p><b>Team/department heads</b> : Strengthen their safety leadership as supervising managers  <b>Operation leader</b> : Work safety manual management, risk assessment measures</p>	<p><b>Hazardous chemicals</b> : Handling major chemicals at plants, responding to accidents  <b>Hazards</b> : Measures to safely handle hazards, improving initial emergency response capacity</p>

### Operating Preliminary Safety Review Procedures for New/Expanded Facilities (SE-Gate)

We operate company-wide safety review procedures to integrate essential workplace safety features in investment plans for new and expanded facilities, and to secure safety through in-depth reviews prior to designing and installing such facilities.

Stage	Description
SE-Gate 1 (Preliminary review)	<ul style="list-style-type: none"> <li>Reflect essential workplace safety requirements in reviewing facility construction/expansion</li> <li>Verify items that require governmental approval and their approval schedules (process safety management, toxic substances, etc.)</li> <li>Apply workplace safety equipment (safety devices, environmental equipment, etc.)</li> </ul>
SE-Gate 2 (Design verification)	<ul style="list-style-type: none"> <li>Verify compliance with workplace safety regulations in the basic/detail design phases</li> <li>Legal and technical regulations (Occupational Safety and Health Act, etc.)</li> <li>Apply to such detailed features as equipment safety and control devices</li> </ul>
SE-Gate 3 (Workplace Safety Evaluation Committee)	<ul style="list-style-type: none"> <li>Perform comprehensive inspections on the condition of installation in the shop floor (mainly involving working-level staff)</li> <li>Inspect the condition of on-site installation of safety/control devices</li> <li>Examine operational safety manuals and the status of staff training</li> <li>Receive the final approval by the Workplace Safety Evaluation Committee</li> <li>Verify improvements made following comprehensive inspections as well as the status of governmental approval granted, and approve mass-production</li> </ul>

ISSUE 2

## Reinforcing Workplace Safety Management

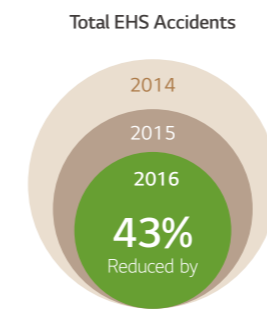
### Establishing work safety standards to prevent employees from making errors (for manufacturing sites including the Ulsan/Oksan/Cheongju Plants)

(Focused on countermeasures to be taken for respective risk factors that may occur while at work)

Work Safety Standards	Work safety procedures	<ul style="list-style-type: none"> <li><b>Work safety procedures for respective risk factors</b> Identify risk factors across the entire process / work safety procedures</li> </ul>
	Trouble-shooting procedures	<ul style="list-style-type: none"> <li><b>Major trouble-shooting and action procedures</b> Actions, work tools, etc. implemented to rectify identified problems</li> </ul>
	Procedures to follow to address facility irregularities	<ul style="list-style-type: none"> <li><b>Abnormality criteria and action procedures by facility unit</b> Symptoms (oil leaks, vibration, etc.), communication of the situation, action measures</li> </ul>

(Focused on manufacturing processes and regular work procedures)

Manufacturing Work Standards	Process chart	<ul style="list-style-type: none"> <li><b>Define the entire process flow and process-specific functions</b></li> </ul>
	Unit-based work procedures	<ul style="list-style-type: none"> <li><b>Regular operational measures by unit</b> Work preparation, operational measures, operational conditions, quality loss, etc.</li> </ul>



\* We established work standards to prevent human error and to set clear action guidelines while developing a training system in consideration of each employees' work experience and job characteristics. Furthermore, we operate preliminary review procedures to ensure that mandatory workplace safety features are fully considered from the initial investment review phase in constructing or expanding facilities in order to secure the safety of facilities and workplaces.

### Regular Operation of the Safety and Environment Committee

Our Safety and Environment Committee meets each month to review the progress of major initiatives undertaken to improve workplace safety.

Initiative	Description
Fire Prevention	<ul style="list-style-type: none"> <li>Define management items - power, use of LNG, and overheated equipment</li> <li>Construct measurement/warning systems</li> <li>Improve upon the fire-fighting devices in offices, warehouses and other vulnerable facilities</li> <li>Train individuals on emergency response procedures</li> </ul>
Eliminate oil mist/static electricity	<ul style="list-style-type: none"> <li>Install static dischargers, oil mist measurement devices and industrial humidifiers</li> <li>Modify the formulation of raw materials, and measure and manage the discharge of static electricity and oil mist</li> </ul>
Reduce narrowness to zero through the Blocking System	<ul style="list-style-type: none"> <li>Conduct activities to eradicate narrowness with high recurrence rate</li> <li>Install safety devices to prevent narrowness and minimize damage</li> </ul>
Reinforce the disaster prevention system	<ul style="list-style-type: none"> <li>Expand evacuation facilities and warning/monitoring systems</li> <li>Reinforce fire-fighting devices for vulnerable facilities</li> </ul>
Review ESH management status	<ul style="list-style-type: none"> <li>Review feedback from the examination of relevant principles and the management of staff diagnosed with certain medical conditions</li> <li>Verify the progress made in reducing waste</li> </ul>

**Preventive Initiatives**

**Safety Accident Prevention Initiatives**

Our workplace safety/public affairs/production departments are responsible for operating a workplace safety review system. This system consistently works to identify and improve on pinpointing the precise location and timeframe of high risk of accidents. This helps us comply with regulatory requirements on workplace safety and to secure the safety of our facilities and workplaces.

Workplace Safety at the Headquarters	<ul style="list-style-type: none"> <li>· Create a joint inspection team across domestic sites and perform theme-based inspections (quarterly)</li> <li>: Appropriate installation of safety devices, best practices adopted by respective sites, etc.</li> </ul>
Workplace Safety at the Plants	<ul style="list-style-type: none"> <li>· Perform inspections on all production teams for their safety/environment/fire safety/chemical management (weekly)</li> <li>: Compliance with work standards, management of safety and environmental facilities, and other matters that require specialized expertise</li> <li>· Identify the status of work conducted through the use of firearms by construction companies and perform inspections in the presence of inspectors (daily)</li> <li>· Conduct safety inspections on accident-prone locations and timeframes (toxic substances/hazards, weekends/night)</li> </ul>
Production (Team/Department Heads)	<ul style="list-style-type: none"> <li>· Review mandatory safety management items on the shop floor (monthly by team heads, weekly by department heads)</li> <li>: Compliance with work standards, training, workplace management and other matters that require constant management</li> </ul>

**Preventing Major Occupational Accidents**

To prevent major occupational accidents, we expanded our fire-fighting devices in areas of high risk and installed leak detection devices near nitrogen-consuming facilities in order to build a choking accident prevention system. Furthermore, we reorganized emergency response manuals across all departments and conducted practical mock drills to prepare for any possible accidents.

**Strengthening the Disaster Prevention System**

Our Ulsan Plant invested a total of KRW 1.7 billion for three years between 2013 and 2015 to strengthen its disaster prevention system : its evaluation facilities were reinforced, its hazard warning/monitoring systems were expanded, and fire-fighting devices were reinforced in the power distribution room and at other vulnerable facilities. As social concerns regarding earthquake preparedness are mounting, we are benchmarking leading Japanese businesses and are investing in independently measuring the magnitude of earthquakes, practicing for swift communication in the event of any such situation, and building an automatic suspension system for high-risk facilities in order to prevent casualties in the case of earthquakes.

Category	Detailed Improvements
Supplement evacuation facilities	<ul style="list-style-type: none"> <li>· Installed and improved pedestrian entrances</li> <li>· Built a disaster experience training facility</li> <li>· Sent emergency messages in the case of earthquakes and improved the emergency broadcasting system</li> </ul>
Expand warning/monitoring systems	<ul style="list-style-type: none"> <li>· Developed a system to detect the leaks of hazardous substances</li> <li>· Improved fire detection equipment at office buildings and other locations</li> <li>· Developed a system to independently measure the magnitude of earthquakes and automatically block hazardous substances</li> </ul>
Reinforce fire-fighting devices	<ul style="list-style-type: none"> <li>· Installed fire-fighting equipment in power distribution/transformer rooms</li> <li>· Installed fire-fighting devices along the gas system in the cafeteria kitchen</li> <li>· Improved fire-fighting devices at indoor hazard storage rooms</li> </ul>

**Supplier Workplace Safety Initiatives**

We provide our on-premise suppliers with health and safety guidance and inspections on a quarterly basis to promote shared growth. We also set up meetings with the CEOs of on-premise/off-premise suppliers to offer monthly training on health and safety issues and regulatory changes. We conduct stringent inspections on construction sites and provide special daily safety training to workers from off-premise suppliers before initiating construction following any days off or holidays so that we can prevent any possible accidents.

**Joint Health and Safety Cooperation Programs**

We provide technical and financial assistance to our suppliers to help them build their own health and safety management system, improve their management capacity and raise their health and safety awareness.

Suppliers Who Receive Support

Program	Ulsan	Oksan/Cheongju
Suppliers Supported	12 suppliers	6 suppliers

**Areas of Support**

- Risk assessment training and support
- Daily inspections of outsourced off-premise suppliers
- Safety reviews performed following the installation of new/expanded equipment



## Shared Growth with Suppliers

Growing social demand for shared growth between large businesses and SMEs and the need to eliminate risk factors along the entire supply chain, specifically in the human rights, environment and labor areas, are emerging as key considerations for any business today. This prompted us at LG Hausys to create a dedicated department to support shared growth and to execute a wide array of support policies with an aim to establish fair trade principles with suppliers and to improve our mutual competitive edge to ultimately pursue shared growth. Furthermore, we are strengthening our CSR management system along the domestic and overseas supply chain to assist our suppliers in preparing for any CSR risks that may occur with their business growth.

### Key Achievements in 2016

**Standard subcontracting agreements signed**  
(Unit: %)

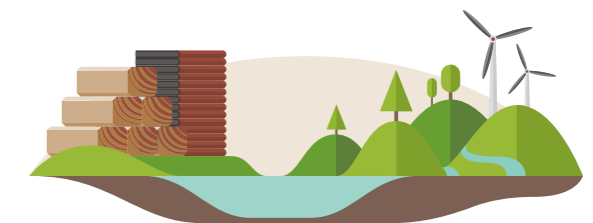
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**Eco-friendly materials purchased**  
(Unit: Ton)

21,663

**Suppliers assessed for CSR risks**  
(Unit: No. of companies)

192



### Achievements & Goals

#### 1 Create a fair trade environment

##### Key achievements in 2016

- Expanded the signing of standard subcontracting agreements with eligible SMEs
- Strengthened reviews before/after the signing of subcontracting agreements
- Improved payment conditions for medium-sized suppliers

##### 2017 plans

- Strengthen unfair trade prevention activities
- Expand investments in shared growth

##### Mid/long-term goals

- Establish reasonable and fair trade practices by complying with regulations and guidelines

#### 2 Build our suppliers' fundamental competitive edge

##### Key achievements in 2016

- Offered financial support (LG Partnership Fund, cash payment, etc.) and technical/management and training support to improve productivity and quality
- Performed CSR assessments on suppliers and defined the scope of supplier CSR management for U.S. branch suppliers

##### 2017 plans

- Expand the scope of supplier CSR management
- Expand support for shared growth and identify additional tasks

##### Mid/long-term goals

- Improve our mutual competitive edge to build an industrial ecosystem that enables sustainable growth

#### 3 Promote open communication

##### Key achievements in 2016

- Upgraded the online purchasing system 'OPEN System' to improve the transparency and standardization of work procedures and to strengthen communication channels
- Established a tier 2 supplier support system by adopting a mutually-beneficial payment system

##### 2017 plans

- Increase the number of banks that support the mutually-beneficial payment system (4 → 5)
- Reward top-performing suppliers by supporting tier 1 suppliers with productivity improvement
- Monitor the status of payment support provided to tier 2 suppliers

##### Mid/long-term goals

- Solidify the foundation for shared growth and establish a sound collaboration culture



ISSUE 1

## Shared Growth Programs

We believe that our suppliers are our partners in seeking shared growth and thus operated a dedicated unit to support shared growth in order to build an industrial ecosystem that enables sustainable growth by improving our mutual competitive edge. We also introduced the mutually-beneficial payment system to extend the scope of shared growth to tier 2 and lower suppliers, while we rewarded high performing tier 1 suppliers in supporting tier 2 suppliers. In so doing, we raise the bar for shared growth along the entire supply chain.

### Signing the Fair Trade Agreement

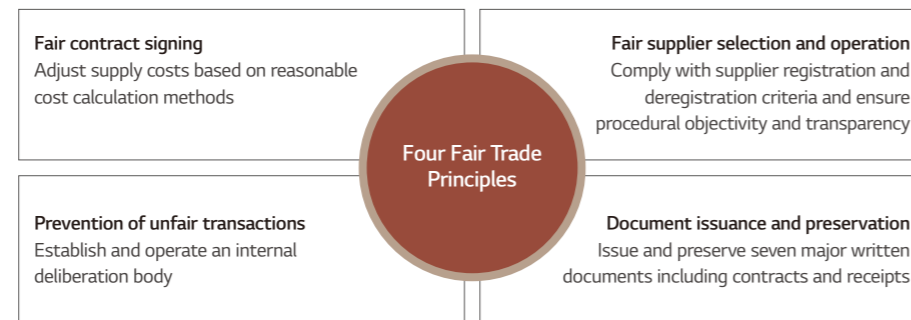
Since November 2008, we have been signing the shared growth and fair subcontracting agreements to comply with subcontracting and other relevant regulations and to consistently support our suppliers. We have been subject to shared growth index evaluations since 2012, and thus our annual progress in promoting shared growth has been objectively assessed by the Fair Trade Commission and the National Commission for Corporate Partnership ever since. In 2015, we were graded 'Excellent' in the shared growth index evaluations. Meanwhile, we signed the Fair Trade Agreement with 195 tier 1 suppliers in 2016 to provide a range of support policies from improving payment terms and offering financial assistance to providing technology protection and training support as a way to pursue mutually-beneficial growth. Our tier 1 suppliers also signed such an agreement with 58 tier 2 suppliers. This enabled them to join forces in expanding fair trade practices by improving payment deadlines and notifying the concerned suppliers regarding price adjustments.

### Shared Growth Management Principles

Driven by the four fair trade principles, we at LG Hausys define five mutually-beneficial support projects to consistently implement our shared growth policy.

### Four Fair Trade Principles

To establish fair subcontracting practices between large businesses and SMEs and to pave the way for mutually-beneficial cooperation, we integrate the action agenda presented by the Fair Trade Commission in our purchasing regulations and abide by such agenda as our fair trade principles.



## Five Growth Support Projects

We provide our suppliers with financial support, improved payment terms, support for quality and technology development, workforce and training support and management support.

Project	Description	Outcomes
Financial Support	We provide low-interest Network Loans, Family Loans, and the LG Partnership Fund for our suppliers. We also assist them in improving their financial conditions by providing outstanding suppliers with additional support.	<ul style="list-style-type: none"> <li>Operated the LG Partnership Fund worth KRW 15 billion and supported 55 suppliers</li> <li>Operated the Network Loans to offer KRW 3.4 billion to 10 suppliers</li> <li>Offered KRW 100 million to invest in shared growth</li> </ul>
Improvement of Payment Terms	While our funding policy stipulates that cash payments be made only for those contracts valued at less than KRW 3 million, we are increasing the ratio of cash payments made to our suppliers to support their business operations.	<ul style="list-style-type: none"> <li>Fully maintained cash-equivalent payments</li> <li>Made KRW 224.2 billion cash payments for contracts that did not meet our funding policy criteria</li> </ul>
Support for Quality and Technology Development	We invested approximately KRW 2 billion in assisting our suppliers with facility investments and improvements, productivity enhancements/quality stabilization, and system infrastructure support. In addition, we actively make joint patent applications to help our suppliers safeguard their technology.	<ul style="list-style-type: none"> <li>Sent 47 technology/quality experts to 91 suppliers</li> <li>Operated a unit dedicated to supplier support to help suppliers establish their own quality assurance system</li> <li>Made two joint patent applications</li> </ul>
Workforce and Training Support	We continue to provide supplier employees with training on compliance management, workplace safety management and quality management, while commissioning external training institutes to offer online training on business management for general and advanced job operations.	<ul style="list-style-type: none"> <li>Korea Suggestion System Association's quality/productivity improvement training attended by 102 employees from 31 suppliers</li> <li>Provided recruitment opportunities to suppliers through the 2016 Korea Job Fair</li> </ul>
Management Support	<ul style="list-style-type: none"> <li>Price coupling and support program : In response to fluctuating exchange rates and market conditions concerning raw materials, we operate a price coupling and support program for major chemicals and raw building materials to swiftly reflect such shifting conditions in supply costs.</li> <li>Support for exchange initiatives : We share diverse issues, including global economic conditions and business plans, through plant-specific subcommittees. In addition, our CEO and purchasing executives attend meetings with our suppliers and visit them on-site to stay current on their pending issues and reflect their feedback in our business conduct.</li> <li>Included in our broad-ranging management support initiatives are awards granted to top-performing suppliers, detailed evaluations of suppliers' financial structure, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Reached KRW 392.1 billion in the price coupling and supply program</li> <li>Hosted five discussion meetings with suppliers in 2016 (152 executives from 149 suppliers attended and engaged in exchange activities)</li> <li>Rewarded top-performing suppliers (Granted Welfare Mall points)                             <ul style="list-style-type: none"> <li>6 suppliers in the comprehensive evaluation sector</li> <li>12 suppliers in the quality evaluation sector</li> <li>Two suppliers in the tier 2 supplier support sector</li> </ul> </li> <li>Shared benefits through the renovation of old facilities                             <ul style="list-style-type: none"> <li>Covered costs to renovate old facilities and were thus able to share the cost savings</li> </ul> </li> </ul>

## Supplier CSR Risk Management

### STEP1 - Establish the CSR Code of Conduct for suppliers

In 2016, we established the CSR Code of Conduct for all our suppliers and have since implemented these regulations. This Code of Conduct encourages our suppliers to fulfill their roles and responsibilities as a member of the global community and pursue shared growth with society in the areas of labor and work conditions, ethics management, health and safety, and environmental management. We recommend that lower-tier suppliers, as well as tier 1 suppliers, abide by this set of regulations.

### STEP2 - Define the scope of supplier management

We evaluate the level of CSR management for those suppliers from whom we purchase KRW 100 million or more, and thus manage their CSR risks. To reinforce our supplier CSR management, we are extending the scope of suppliers who receive evaluations and reflect the outcomes in selecting and managing our suppliers. We will gradually broaden the scope of our CSR management in the upcoming years.

### STEP3 - Perform supplier CSR evaluations

We evaluate our suppliers in such CSR-related areas as labor, human rights, the environment and safety. We identified the status of our Korean suppliers, whose purchases exceeded KRW 100 million in the previous year, or who supplied items of high strategic importance, in our CSR management and reflected the review outcomes in performing supplier evaluations. In so doing, we strengthened our supplier impact assessments so that our suppliers can consider CSR factors in the entire purchasing process. Notably, CSR evaluations are mandatory in evaluating supplier candidates, and those whose CSR evaluation score is less than 70 points are reviewed for their possible exclusion from our pool of suppliers. From 2017 onwards, we will add on-site audits to the scope of supplier impact evaluations so that we can support our suppliers in areas that have proven to contain risks that need to be addressed.

### Evaluation items

Our supplier CSR evaluations span their ethics management system, fair trade and other aspects of ethics management as well as social contribution, health and safety management and environmental management. Specifically, human rights impact assessments are performed on written labor contracts, bans on discrimination and wage and labor conditions, along with other factors. This contributes not only to identifying relevant risks, but also to elevating our suppliers' performance in human rights management. We plan to reflect human rights and other CSR trends, as well as evaluation outcomes to diversify our evaluation criteria each year.

SPECIAL ISSUE

Case Study of Supplier Support

### Hosting the '2nd Supplier Suggestion Festival'

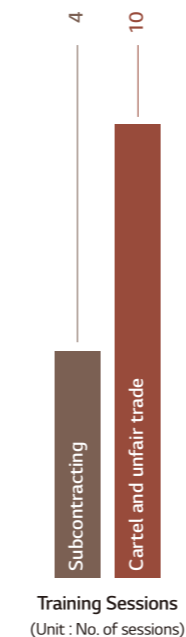
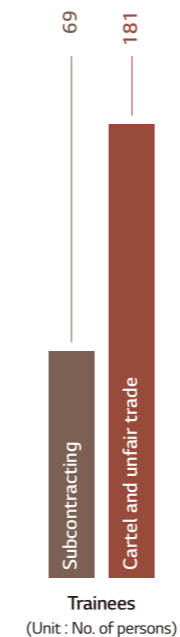
On April 26<sup>th</sup> of 2016, we hosted the '2nd Supplier Suggestion Festival' at our Anyang R&D Center. The event intends to discover product development ideas and requirements from our suppliers: our researchers can explore diverse development pathways and speed up their work while our suppliers gain an opportunity to officially present and introduce their R&D outcomes. The festival enabled two products to be launched, and we signed contracts with the suppliers who presented the ideas for these items. We plan to host future festivals at our plants to generate models that are even more successful: this will allow us to reduce costs and improve quality while enabling our suppliers to tap into new markets.

## Fair Trade Compliance Program

The Fair Trade Compliance Program is an in-house compliance system that ensures businesses voluntarily comply with fair trade regulations. This establishes fair trade criteria for employees so as to prevent any legal violations and to make regular reviews to identify and correct such violations early on.

At LG Hausys, we established our own fair trade compliance program in 2010. Our CEO declared our commitment to voluntarily abide by fair trade regulations and we were registered as an operator of the Fair Trade Compliance Program recommended by the Korean Fair Trade Commission.

2016 Training Data



Major Programs	
Program	Description
Internal inspection	· Conduct inspections of major business divisions and plants for their trade practices
Regulatory training	· Raise employee awareness of fair trade and disseminate the culture of fair trade · Distribute fair trade manuals and teaching materials · Offer regular internal/external training
Preliminary review	· Target the entire business operation: planning, sales, marketing, purchasing and financing · Aim to prevent any violation of competition regulations · Mobilize internal fair trade experts to conduct reviews prior to initiating business
Internal review of subcontracting transactions	· Build systems to prevent and monitor unfair subcontracting practices in doing business with suppliers · Create and operate the 'Internal Subcontract Transaction Review Committee' attended by purchasing managers

### Fair Trade Compliance Organization

Our Fair Trade Compliance Program is operated by the dedicated working-level team under the leadership of the executive-level Compliance Program (CP) manager. We also created and are operating the Internal Subcontract Review Committee to ensure fairness in subcontracting with SME suppliers: subcontracts valued above a specific amount are subject to preliminary reviews to examine their legitimacy and to prevent any violation of subcontracting regulations.

### Outcomes of the Fair Trade Compliance Program

We provide annual fair trade and subcontracting training for our business divisions and plants while making necessary reviews. In 2016, we trained employees from respective business divisions on the prevention of cartel practices and compliance with subcontracting and fair trade regulations. Our new team leaders and new hires with previous work experience received such training, and our working-level marketing staff received external training on labeling and advertising as a way to reinforce our compliance-oriented mindset across the board.

Outcomes of the Fair Trade Compliance Program		
Year	Sessions	Description
2016	14	· Offered cartel and unfair trade prevention training to new team leaders and new hires with previous work experience · Performed internal fair trade reviews on business divisions and offered intensive training · Performed subcontracting reviews on purchasing departments and offered training
2015	14	· Offered cartel and unfair trade prevention training to new team leaders · Performed internal fair trade reviews on business divisions and offered intensive training · Reviewed and trained on misleading labeling and advertising
2014	18	· Sent CEO's fair trade messages · Offered cartel and unfair trade prevention training by job position · Offered intensive subcontracting training to purchasing staff and technology departments/research labs

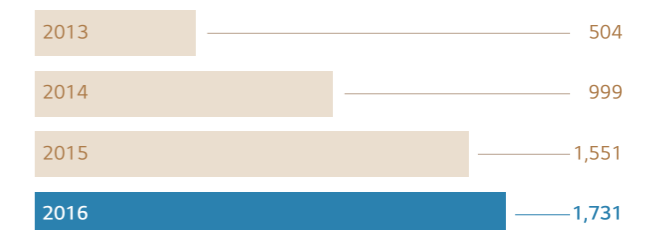
# Social Contribution

At LG Hausys, we pursue mutually-beneficial development with the greater community through our social-giving initiatives that put our employees' capacity into their best use and are closely aligned with our inherent business characteristics. We instigate positive changes in society by preserving cultural heritage and the environment, renovating the historic sites of Korea's Independence Movement, improving the residence for men of national merit and undertaking sharing programs with local communities.

## Key Achievements in 2016



**Investment in Local Communities**  
(Unit: KRW million) **1,731**



## Achievements & Goals

### Facilitate leading programs 1

#### Key achievements in 2016

- Dokdo Natural Preservation Zone Jikimi (2009 – present)
- Make a Happy Space (14 spaces)
- Renovated the historic sites of Korea's Independence Movement (Yoon Bong-Gil Memorial Hall)

#### 2017 plans

- Improve the quality and operation of programs
  - Patriotism-driven social-giving programs, Dokdo Jikimi, etc.
  - Evaluate and improve our social contribution programs

#### Mid/long-term goals

- Operate sustained and genuine programs in accordance with mid/long-term plans

### Diversify social-giving initiatives 2

#### Key achievements in 2016

- Renovated the residence of men of national merit (Including more Korean War veterans)
- Assisted in recovering from Typhoon Chaba

#### 2017 plans

- Identify and implement new programs
  - Develop social-giving programs that engage employees

#### Mid/long-term goals

- Develop and operate programs that use our business capabilities (human resources, budget, etc.) as well as our inherent business characteristics
- Widen initiatives that help address social issues

### Undertake sharing programs for local communities 3

#### Key achievements in 2016

- Make a Happy Space (2009 – present, 15 spaces)
- LG Happy Day
- Briquettes of Love volunteer program
- One Company One Village/One Stream/One Mountain campaigns

#### 2017 plans

- Engage more employees in talent donation programs
- Continue to contribute to local communities

#### Mid/long-term goals

- Facilitate communication with wide-ranging stakeholders and improve our corporate brand through sharing initiatives for local communities





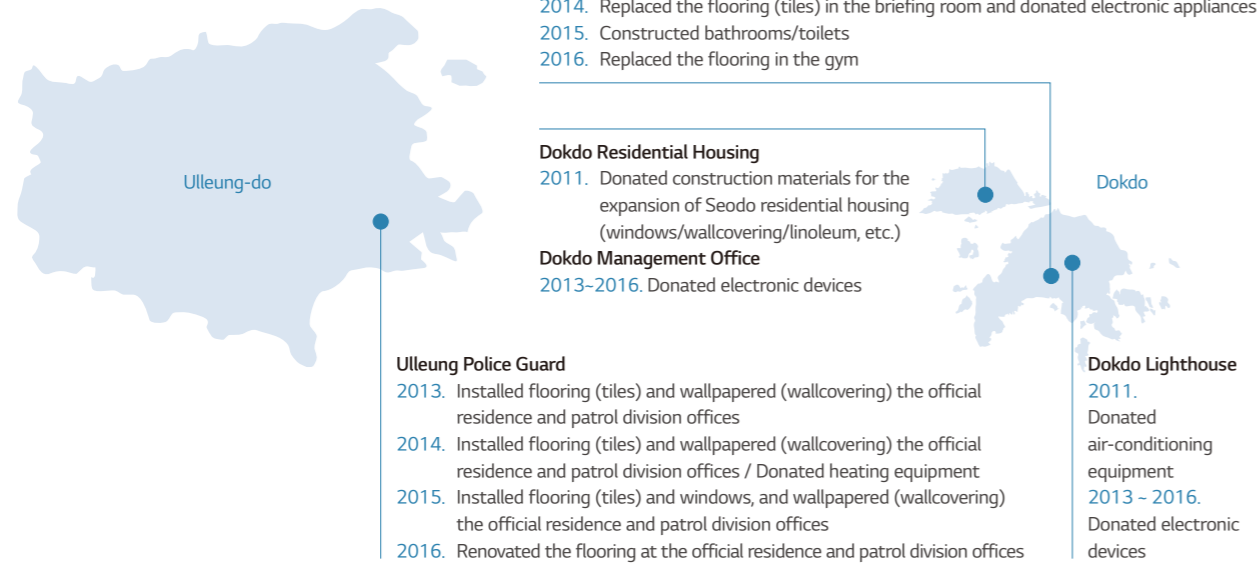
ISSUE 1

## Preserving Korea's Cultural Heritage and Environment

We continue to provide educational youth programs to preserve our natural, historical and cultural heritage and to pass down this legacy to future generations.

### Make Dokdo Green

This annual facility improvement initiative has been undertaken in Dokdo since 2009 to improve the quality of life for Dokdo residents while protecting the pristine environment of this natural preservation area.



### Dokdo Love Youth Camp

We select approximately 20 undergraduates every year to directly/indirectly experience Dokdo through such broad-ranging programs as visits to the island, exchanges with Dokdo keepers, admission to special lectures given by experts, opportunities to engage in Love Dokdo conservation tasks, and nature trekking. In so doing, we help the younger generation understand and disseminate the historic and geographical significance of this island.



ISSUE 1

## Preserving the Cultural Heritage of Four Major Palaces in Korea

In conjunction with the Korean Cultural Heritage Administration, we assist in the renovation of four major palaces in Seoul as a way to protect our precious cultural heritage. In 2016, we installed nearly 80m of safety fences around Buyonggi Pond at Changdeokkung Palace to protect visitors from falls and injuries and put our synthetic wood products to use in creating decks for visitors to take a seat and rest within the rest areas of the palace. We plan to expand such initiatives to support the cultural heritage facility of four major palaces in the upcoming years.

ISSUE 2

## Renovating the Historic Sites of Korea's Independence Movement and the Residence for Men of National Merit

We renovate facilities related to Korea's Independence Movement as well as the residence for men of national merit so that the spirit of this historic movement and the sacrifice and national contribution of our ancestors will be forever remembered by future generations.

### Renovating the Historic Sites of Korea's Independence Movement

Inheriting the spirit of the LG Group founder (the late Chairman Goo In-Hoe) to support Korea's Independence Movement, we used our top-quality products, including high-insulation windows and eco-friendly flooring, in renovating the Seo Jae-Pil Memorial Hall, the Yoon Bong-Gil Memorial Hall, and the Lee Hoe-Young Memorial Hall. In 2016, we signed a contract to restore the U.S. legation of the Korean Empire Government.



### Renovating the Residence for Men of National Merit

We improve the living environment for men of national merit (Korean War veterans, descendants of Independence Movement activists, etc.). Since 2015, this housing renovation initiative has benefited five people in Korea and two people overseas (U.S, India). We will continue with this housing renovation initiative in the upcoming years.



Before construction

After construction

ISSUE 3

## Sharing Initiatives for Local Communities

We launch broad-ranging sharing initiatives to demonstrate just how much we care for the less-privileged in our local communities. Such initiatives are undertaken by respective worksites and in cooperation with central and local governments. In so doing, we actively explore and capitalize on opportunities to lend a helping hand to local communities.

### Make a Happy Space

Our Make a Happy Space initiative was launched to encourage our future leaders to dream and hope for a better future by improving public youth spaces with our specialized products and execution and design capabilities. Since opening of the 1<sup>st</sup> Happy Space created at the Ilsan Holt Children's Services, we have renovated approximately three public youth spaces every year. Notably, this initiative benefited 14 such spaces in 2016 through our cooperation with the Korea Association of the Community Child Center (KACCC).

### Key Social-Giving Initiatives by Plant

At our Ulsan and Oksan Plants, employees are fully engaged in social contribution programs designed to contribute to the development of local communities and to protect the environment in the vicinity of these plants.

Plant	Initiative	Description
Ulsan Plant	One Company One Village	Support the events held in villages near the plant and purchase agricultural produce from these villages
	One Company One Stream	Inspect the water quality of Hoeya River near the plant and conduct clean-ups along the river
	One Company One Mountain	Clean up Daeun Mountain with Ulsan City and Ulju-gun
	LG Happy Day	Donate kimchi to local children's center in Onyang and the elderly living alone with the funds raised by employees at year-end events
	Labor for Love	Donate TVs, washers, and refrigerators, etc. to three senior welfare centers (Gaon Senior Welfare Center, etc.)
Oksan Plant	One Company One Stream	Clean up Miho Stream in alignment with the Geumgang River Basin Environmental Office
	Support for children from low-income families	Provide minimum living expenses to children from low-income families in alignment with ChildFund Korea
	Delivery of Briquettes with Love	Deliver briquettes to seniors living alone with Chungbuk Briquette Bank
	Delivery of Kimchi with Love	Donate kimchi to childcare centers and senior welfare centers in the region
	Labor for Love	Donate washers, refrigerators and other home electronics to a senior welfare center (Bogumjari Senior Welfare Center)

ISSUE 4

## Creating Value for Local Communities through Private-Public Partnerships

We cooperate with central and local governments to fully mobilize our business capabilities and infrastructure in renovating old residential facilities in local communities and enabling people to enjoy a more eco-friendly and pleasant living space.

### Engagement in the Green Remodeling Project

The Green Remodeling Project is supervised by the Ministry of Land, Infrastructure and Transport to improve the energy performance of old buildings whose energy efficiency has degraded. This not only helps in balancing the energy supply/demand, it also serves to reduce energy costs. We provide our high-insulation windows and other high energy-efficiency products to expand the cause of this meaningful project. We replaced old windows on 1,774 houses on nearly 6,200 occasions in 2015 and 2016 respectively, which translates into approximately 80% of the total Green Remodeling Project.

SPECIAL ISSUE Sharing with Local Communities in 2016

### Assisting Areas Affected by Typhoon Chaba

We donated necessary supplies to Ulsan, Busan, Yangsan and other flooded areas affected by Typhoon Chaba. Our flooring and wallpaper were delivered to nearly 60 households in these regions, and their installation was performed consecutively by undergraduate volunteers working under the Korea Disaster Relief Association.



### Renovating the Residence for Socially-Underprivileged with the Ministry of Environment

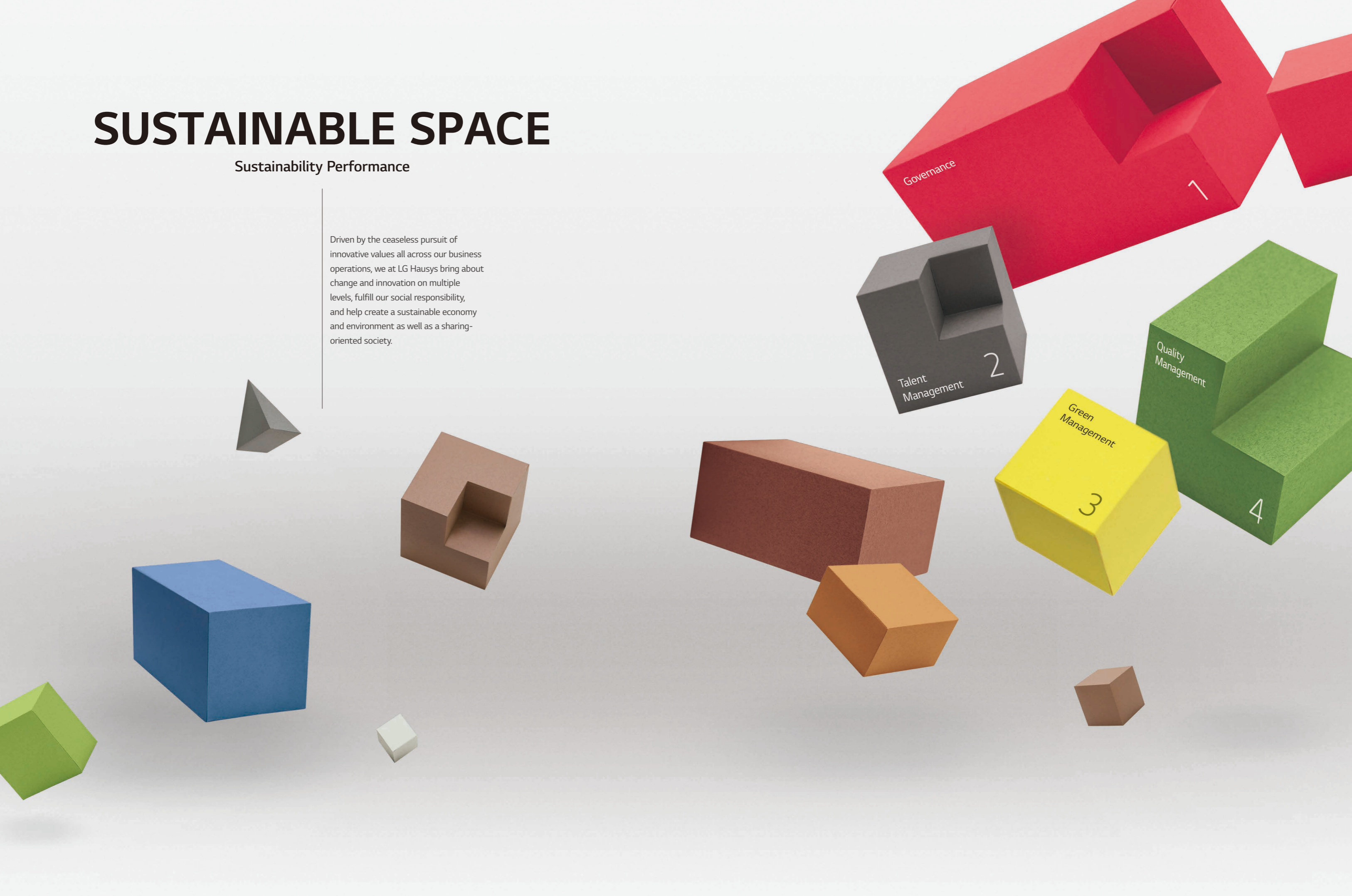
For socially-underprivileged groups – low-income families, broken families, and children suffering from environmental diseases – whose living conditions are often substandard, we offer free-of-charge assistance in renovating their residence : we assess their residence for hazard factors that may cause environmental diseases and if necessary, we install our eco-friendly wallcovering and flooring. This initiative benefited 540 households in 2015 and 361 households in 2016 and the indoor living conditions of these people improved through the execution of our eco-friendly wallpaper and flooring. For those suffering atopic diseases, asthma and other environmental diseases, we provided free-of-charge medical treatment in alignment with the Environmental Health Center, as a way to cooperate with the government in creating a better living space for these vulnerable groups.



# SUSTAINABLE SPACE

## Sustainability Performance

Driven by the ceaseless pursuit of innovative values all across our business operations, we at LG Hausys bring about change and innovation on multiple levels, fulfill our social responsibility, and help create a sustainable economy and environment as well as a sharing-oriented society.



# Governance

PERFORMANCE 1

## Governance

1

We are building a fair decision-making system that will increase our credibility from our stakeholders. Since 2014, our Board of Directors has been responsible for discussing social responsibility issues as a way to improve the capability of our execution in advancing sustainability management.

### Shareholder Composition and Rights

We established a fair and stable ownership structure to become a sustainable company. Our shareholders are entitled to wide-ranging shareholder rights, and information on major business issues is disclosed through the electronic information disclosure system of the Financial Supervisory Service or on our corporate website.

→ "LG Hausys website" (<http://www.lghausys.co.kr/kor/util/investor/counciljsp> ⇒ Disclosure Information)

### BOD Composition and Operation

Our Board of Directors (BOD) is responsible for making decisions regarding our major business conduct and for supervising the operations of our board members. The board also votes on matters specified by relevant laws and the Article of Association, matters delegated by the general shareholder meetings, and other important business-related matters. The separation of the CEO from the BOD chairmanship and the participation of outside directors in BOD activities guarantee that decisions are made in a reasonable and transparent manner.

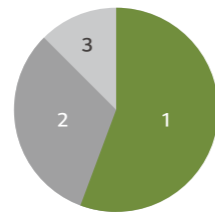
### BOD Composition

Our Board of Directors consists of two executive directors, two non-executive directors and three outside directors.

### Appointment and Responsibility of the BOD and Outside Directors

The appointment of our BOD members follows the procedures stipulated by the Commercial Code and other relevant regulations, and should

Shareholder Composition  
(As of Dec. 31<sup>st</sup>, 2016)



1. Korean institutional/individual investors

54.11%

2. LG Corporation

33.52%

3. Foreign investors

12.37%

be approved by the BOD and at the general shareholder meetings. Our outside directors should account for at least one fourth of the total BOD members. Outside directors are selected from a pool of experts who have no special interest in LG Hausys and bring with them extensive experience and expertise in the fields of economy, business management, and chemical engineering. Once appointed, outside directors can access LG Hausys' strategic directions and pending issues in the areas of the economy, society and the environment while actively voicing their opinions on such issues.

### BOD Activities

Our BOD met 10 times in 2016, and the average percentage of directors in attendance was 98.5%. The BOD deliberated on a total of 33 agenda items including the approval of business plans, out of which 24 were approved and nine were reported.

### BOD Remuneration

Our BOD remuneration criteria are determined each year in consideration of the annual evaluation of its performance, inflation, and the external competitiveness of outside director compensation. The remuneration limit is approved by the general shareholder meeting in accordance

BOD Composition (As of Apr. 2017)

Director	Name	Position and Career Description	Note
Executive	Oh Jang-Soo	President and CEO	
Director	Seong Gi-Seob	CFO	
Non-executive Director	Ha Hyeon-Hoe	CEO and President, LG Corporation	BOD Chairman
Director	Yu Ji-Yeung	Managing Director, Business Administration Team, LG Corporation	
Outside Director	Kim Young-Ick	Professor, Department of Economics, Sogang University	Member of the Audit Committee
Director	Kim Jin-Gon	Professor, Department of Chemical Engineering, Pohang University of Technology and Science	Member of the Audit Committee
Director	Bae Zong-Tae	Professor, College of Business, Korea Advanced Institute of Science and Technology	Member of the Audit Committee

Details of the BOD Operations

Meeting	Date of Meeting	Agenda item	Attendance of Directors
1	Jan. 26 <sup>th</sup> , 2016	Approval of the 7th-term financial statements and six other items	100%
2	Feb. 25 <sup>th</sup> , 2016	Approval of the convocation of the 7th general shareholder meeting and two other items	100%
3	Mar. 8 <sup>th</sup> , 2016	Approval of the modification made in convening the 7th general shareholder meeting and one other item	100%
4	Mar. 24 <sup>th</sup> , 2016	Approval of the payment of director remuneration for 2016 and three other items	100%
5	Apr. 22 <sup>nd</sup> , 2016	Report on Q1 2016 business results and one other item	100%
6	Jul. 22 <sup>nd</sup> , 2016	Report on Q2 2016 business results and five other items	100%
7	Sep. 20 <sup>th</sup> , 2016	Approval of the merger contract	100%
8	Oct. 25 <sup>th</sup> , 2016	Report on Q3 2016 business results and two other items	100%
9	Nov. 1 <sup>st</sup> , 2016	Approval of the public disclosure made on the completion of the merger	100%
10	Dec. 1 <sup>st</sup> , 2016	Approval of the appointment of executive directors (draft) and three other items	85.7%

with the set criteria, and any modification of BOD remuneration must be proposed to and ultimately approved by the BOD.

### BOD Committees

#### Audit Committee

We operate the Audit committee under the BOD to ensure the independence and transparency of our auditing. The committee consists of three outside directors, all of whom are exempt from the disqualification criteria stipulated in the Commercial Code.

#### Audit Committee Operation and Activity

The Audit Committee is responsible for inspecting LG Hausys' accounting and business practices, and reserves the right to request board members to report on business operations and to investigate the business conduct and assets of

Audit Committee Operation and Activity

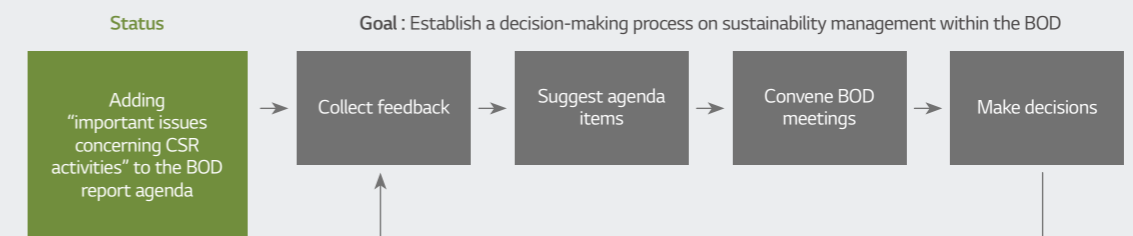
Meeting	Date of Meeting	Agenda Item
1	Jan. 26 <sup>th</sup> , 2016	Report on the operational status of the internal accounting management system in 2015 and four other items
2	Feb. 25 <sup>th</sup> , 2016	Approval of the audit report (draft) concerning the 7th-term financial statement and business report
3	Apr. 22 <sup>nd</sup> , 2016	Report on non-auditing services and two other items
4	Jul. 22 <sup>nd</sup> , 2016	Report on Q2 2016 business results and one other item
5	Oct. 25 <sup>th</sup> , 2016	Report on Q3 2016 business results and one other item

LG Hausys. The committee can convene ad-hoc general shareholder meetings to deal with special issues by submitting documents that describe the reason such meetings are required and the purpose of such meetings. The committee also has the right to request business reports from subsidiaries and investigate their operations and assets if deemed necessary.

### SPECIAL ISSUE

#### Revising BOD Regulations on CSR

To lay the groundwork to report Corporate Social Responsibility (CSR) activities to the BOD, we added "important issues concerning CSR activities" to the BOD report agenda in 2014. In so doing, we aim to enhance our management's interest in sustainability management and proactively fulfill our corporate social responsibility.



## Ethics Management

2

We practice Jeong-Do Management to fulfill our responsibility towards customers, suppliers, shareholders, employees and society so that we grow into an even more respected company.

### The LG Way and Jeong-Do Management

As LG's unique corporate culture, the LG Way aims to put LG's Management Philosophy of "Creating Value for Customers" and "Respecting Human Dignity" into practice by abiding by Jeong-Do Management to ultimately achieve the "No. 1 Vision" of LG. LG's Jeong-Do Management drives us to consistently build capacity and compete in a fair manner, and it springs from the foundation of ethics management.

### LG Code of Ethics

LG established its Code of Ethics and is practicing these ethical norms to help guide the practices and value judgments of its employees. The Code of Ethics Handbook is available in Korean, English, and Chinese and is distributed to our employees.

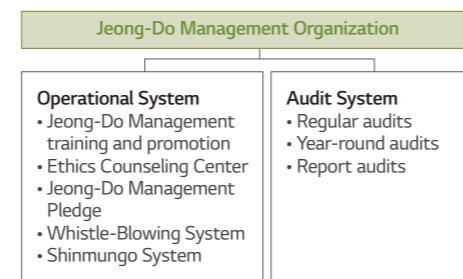
Code of Ethics : Composition and Details

Chapter	Details
Chapter 1	Responsibilities and Duties to Customers
Chapter 2	Fair Competition
Chapter 3	Fair Transactions
Chapter 4	Basic Ethics of Employees
Chapter 5	Corporate Responsibilities to Employees
Chapter 6	Responsibilities to the Nation and Society

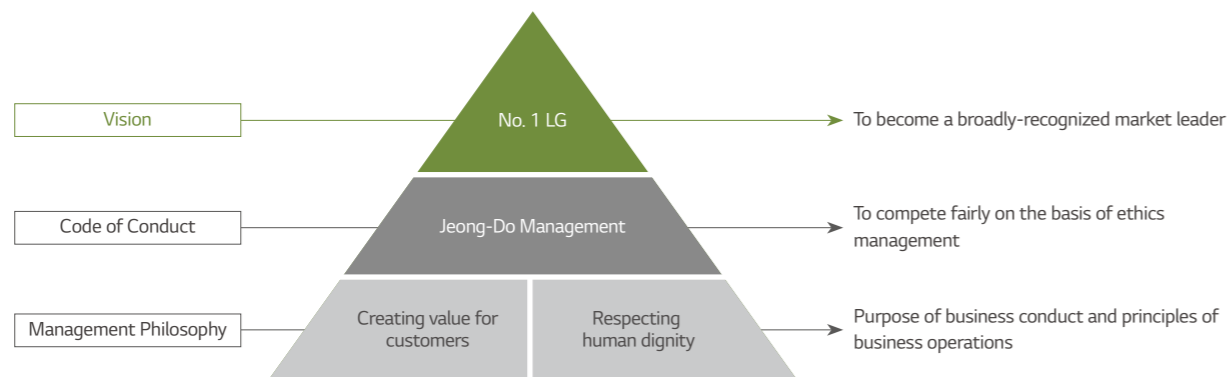
LG Jeong-Do Management Website  
(<http://ethics.lg.co.kr/>)

### LG Hausys' Jeong-Do Management

At LG Hausys, we are fully aware of the 'importance of Jeong-Do Management not as an option but as a prerequisite for our survival as a company'. Thus, we operate a dedicated Jeong-Do Management organization and ensure that this management philosophy is built into the fabric of our corporate operation so as to prevent any corruptive or illegal behaviors of our employees and to establish a culture of Jeong-Do Management. For us at LG Hausys, Jeong-Do Management means more than a mere ethics management, but forms the basis of our competence to outperform our competitors. To this end, we sharpen our competitive edge through constant innovation to 'Create Value for Customers' while providing equal opportunity and performance-based compensation to our employees to 'Respect Human Dignity,' which in turn enables us to offer great customer service that espouses high value and integrity. At LG Hausys, we abide by the philosophy of Jeong-Do Management as well as our Code of Ethics in our business operations while taking the initiative in improving on any irregularities formerly misconceived as customary practices so that Jeong-Do Management becomes an even more vital part of our organizational culture.



The LG Way and Jeong-Do Management



### Jeong-Do Management Programs

We practice Jeong-Do Management through such wide-ranging programs as the Jeong-Do Management Pledge, the Whistle-Blowing and Shinmungo Systems, and Jeong-Do Management training.

#### Jeong-Do Management Pledge

All our employees sign the Jeong-Do Management Pledge online and our suppliers do the same through signing contract documents upon the start of business relationships. This further serves to commit both employees and suppliers to abide by the LG Code of Ethics and practice Jeong-Do Management.

#### Whistle-Blowing System

We at LG Hausys prohibit all our employees from accepting any bribe or reward from stakeholders under any circumstance. In the case such bribes or gifts are offered, they should be politely refused and returned in accordance with the Code of Ethics. If for any reason this is not possible, the concerned articles should be reported to the Ethics Bureau and be donated to welfare organizations or sold through in-house auctions so that the proceeds can be used for social-giving causes.

#### Shinmungo System

Any violation of the Jeong-Do Management principles is reported via the Shinmungo System. These include unfair practices committed by our employees through the misuse of authority, acceptance of bribes, and any other practices that go against the LG Code of Ethics. In the case that online reporting is unavailable, reports can be made by phone, fax, postal mail or in person. We guarantee that any information on the informants

is strictly protected, and should any individual who has filed a report become disadvantaged as a result, we ensure that restoration or equivalent compensation measures are taken.

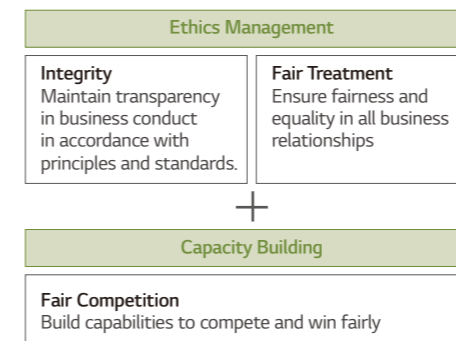
#### Jeong-Do Management Training and Promotion

We offer annual Jeong-Do Management training and promotional programs to our employees in Korea and at overseas subsidiaries in accordance to their job or position. Furthermore, we disseminate our culture of Jeong-Do Management to suppliers and distributors through relevant training, discussions, and newsletters. In 2016, we developed video learning materials on the LG Way, the Code of Conduct, regulatory compliance and other topics concerning Jeong-Do Management and used them in offering online training to our Chinese subsidiaries and suppliers. We aim to assist our overseas subsidiaries and suppliers in improving their understanding of Jeong-Do Management by strengthening regular communication and by providing continual training and promotional programs in the upcoming years.

Category	2014	2015	2016
Employee Attendance (No. of employees)	4,460	6,415	4,500



Training at Chinese Subsidiaries



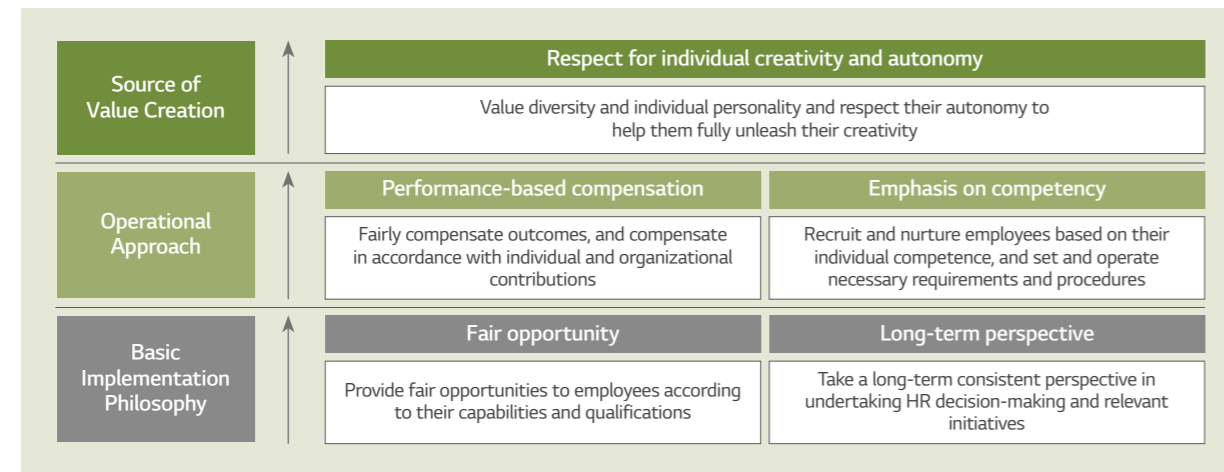
# Talent Management

PERFORMANCE 2

We stand by our business philosophy of 'Respecting Human Dignity' as a company that grows with its employees. We respect the creativity and autonomy of our employees and fairly evaluate and compensate them.

## HR Principles

We respect the individuality and diversity of our employees to help them fully use their creativity while setting and operating procedures required to secure and nurture highly-competent talent.



## Achievements and Goals

<p><b>1</b> Develop a training system to nurture business leaders and job experts</p> <p><b>Key achievements in 2016</b></p> <ul style="list-style-type: none"> <li>Operated a key talent P/G to nurture business leaders (selection and promotion)</li> <li>Operated a leadership change P/G</li> <li>Strengthened advanced job training</li> </ul> <p><b>2017 plans</b></p> <ul style="list-style-type: none"> <li>Reinforce the promotion of market-leading job experts                     <ul style="list-style-type: none"> <li>Focus on technology seminars and other manufacturing capabilities</li> </ul> </li> <li>Strengthen global business competency</li> <li>Operate a 'lead by setting an example' leadership development P/G</li> </ul> <p><b>Mid/long-term goals</b></p> <ul style="list-style-type: none"> <li>Provide strategically timed HR solutions to strengthen key business competency</li> <li>Provide equal opportunity in accordance with individual capacity and job specifications</li> </ul>	<p><b>2</b> Take a performance-driven approach through fair evaluations</p> <p><b>Key achievements in 2016</b></p> <ul style="list-style-type: none"> <li>Performed quarterly reviews and offered feedback                     <ul style="list-style-type: none"> <li>Conducted feedback status surveys and posted feedback guides</li> </ul> </li> <li>Offered capacity-building training for evaluators (mandatory)</li> <li>Hosted Assessment Review Committee meetings</li> </ul> <p><b>2017 plans</b></p> <ul style="list-style-type: none"> <li>Strengthen quarterly reviews and offer feedback</li> <li>Provide capacity-building training for evaluators (mandatory)</li> <li>Improve the deliberation function of the Assessment Review Committee</li> </ul> <p><b>Mid/long-term goals</b></p> <ul style="list-style-type: none"> <li>Fairly evaluate performance according to individual performance and competency</li> <li>Provide continuous feedback to improve the acceptance of evaluation outcomes and individual capabilities</li> </ul>	<p><b>3</b> Operate stable labor relations based on compliance with principles</p> <p><b>Key achievements in 2016</b></p> <ul style="list-style-type: none"> <li>Operated labor relations sustainably</li> <li>Preemptively responded to the labor relations environment</li> </ul> <p><b>2017 plans</b></p> <ul style="list-style-type: none"> <li>Facilitate labor-management communication to support the generation of business outcomes</li> <li>Improve the execution capability in undertaking labor-management projects</li> </ul> <p><b>Mid/long-term goals</b></p> <ul style="list-style-type: none"> <li>Promote labor-management engagement and cooperation</li> </ul>
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## The Ideal LG Hausys Employee

1

The ideal LG Hausys employee "believes in and is capable of practicing the LG Way". As such, we strive to recruit and nurture globally-competent individuals who fall within the parameters of this definition.

### Ideal LG Hausys Employee

- Challenge oneself to become the world's best through ambition and passion
- Put customers first and ceaselessly pursue innovation
- Value teamwork as well as independence and creativity
- Continually strive to build expertise and compete fairly

grounds of gender, age, or religion as specified in our Code of Conduct and our employment policy.

## HR Management Principles

Value is created from individual creativity, while performance is driven by employee capability. At LG Hausys, we provide fair opportunities in accordance with an individuals' abilities and qualifications, fairly evaluate the delivered outcomes, and compensate according to the individual and organizational contributions made. Furthermore, we take a long-term and consistent approach in making all HR management decisions while guaranteeing equal employment opportunities, respecting human rights, and compensating our employees for their performance without any discrimination on the

## Employee Data

The number of our employees in Korea and abroad amounted to 4,424 on a consolidated basis as of the end of 2016. The ratio of office and production workers was 67.5% and 32.5% respectively. We hired 224 new employees in 2016, and ranked among the top 100 job creators for our contribution to creating jobs for young people.

Ratio of Locally-Hired Employees (Unit : %)

Category		2014	2015	2016
Ratio of local recruitments	U.S.	96.5	96.3	96.5
	China	95.7	95.9	95.7

Employee Data<sup>1)</sup> (Unit : No. of persons)

Category		2014	2015	2016	
Employees in Korea		3,135	3,242	3,140	
	Type of employment	Regular	3,050	3,157	3,058
		Contract-based	85	85	82
	Female employees	412	446	425	
	Socially-underprivileged minorities	People with disabilities	55	51	46
		Men of national merit	89	90	85
	By age	20's	552	573	588
		30's	877	896	817
		40's	1,009	1,035	1,018
		50 and older	697	738	717
	By job level	Executives	19	22	23
		Employees	3,116	3,220	3,117
	By job category	Office workers	2,043	2,151	2,121
		Production workers	1,092	1,091	1,019
	By region	Headquarters (Seoul)	788	808	769
Window plant in Cheongju		302	252	161	
Oksan Plant		332	377	383	
Ulsan/Onsan Plants		1,101	1,119	1,099	
Others <sup>2)</sup>		612	686	728	
New recruitment		268	200	224	
Turnover <sup>3)</sup>		68	41	54	
R&D/Design Centers		285	309	316	

1) Criteria : Includes subsidiary employees and expatriate employees at the end of December of the concerned year

2) Others : Non-Seoul sales teams, overseas subsidiaries/branches, other plants, Design Center, R&D Center

3) Turnover : Employees who resigned voluntarily

## Talent Nurturing Programs

2

We fully recognize that nurturing talented individuals is the key to becoming a market leader, and thus provide talent-nurturing programs in alignment with our business strategy. First, we offer specialized job training to nurture business leaders for our future and for their expertise, and secondly, we offer position-specific mandatory training based on global competency and core values for our global operations.

### Business Leader Training System

Becoming a market leader requires that we discover and nurture future business leaders with business execution and leadership capabilities early on. This is why we at LG Hausys established a business leader training system and operate this system as follows : Young HPIs in assistant manager positions and next-generation talent in manager and senior manager positions are placed on the two different training tracks of Biz Talent for future business leaders and Pro Talent for future professionals. Furthermore, we identify key talent among locally hired employees at our overseas subsidiaries/branches and provide online training to nurture their leadership potential.



LG Hausys Training System

Category	Position-specific Mandatory Training	Business Leader Training	Specialized Job Training	Global Training
Executives	Newly-appointed executives	EnDP		One-on-one executive level conversation skills
Level I General Managers	Team leader leadership	Future executives LG Way General Managers	Mid/long-term training Global MBA	Advanced Chinese
Level II Senior Managers	New team leaders	Promoted to Level I Market leadership seminar	Biz/Pro Talent Domestic MBA LG MBA	Intermediate Chinese
Level III Assistant Managers	Promoted as Senior Managers	Promoted to Level II-1 Young HPI 4 <sup>th</sup> year : Corporate innovation 3 <sup>rd</sup> year : Management strategy 2 <sup>nd</sup> year : Corporate operation 1 <sup>st</sup> year : Marketing	Job-specific overseas training R&D degree course Design expert Management strategy expert Marketing expert	
Level IV Working-Level Staff	Refresh Start Jump up Camp Basic job skills	Promoted to Level III	Sales/marketing Trend seminar Area-based marketing B2B marketing	Basic Chinese
Level V New Hires	New hires with/without previous career experience Introduction for IV-2,3, levels	New hires with/without previous career experience	Production/engineering Technology seminar Quality management Cost-driven VE New product development TRIZ course Cost management Six Sigma Production management Chief engineer	
			R&D Technology management Patent practices Polymer Rheology Analytical chemistry Material engineering Experiment planning Introductory researcher course	

\* In-house promotion courses are provided exclusively for promoted employees, relocated employees, and office execution employees.   
  In-house courses   
  Courses provided at the LG Training Center (Inhwawon)

## Innovation of Organizational Culture

3

To become a recognized market leader, we have declared and have remained true to our commitment to 'execution-driven management' which defines our mental attitude, organizational culture, work attitudes and methodology, as well as providing a set of virtues required of leaders. To help firmly imbed the root of this 'execution-driven management' philosophy into our organizational culture, we operate continuous communication programs such as Green Board and We-Ha-Yeo while innovating our organizational culture through self-initiated employee engagement in the Community of Practice, the Futurist, the Idea Tree, and other future-oriented programs.

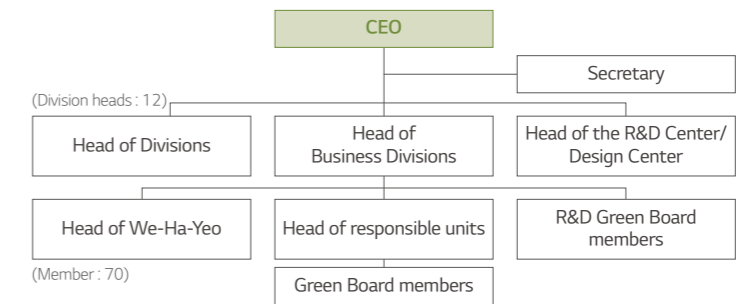
### Culture that Values Employee Communication

We provide a wide array of programs to facilitate employee communication. At LG Hausys, 'Green Board', a gathering of employee representatives from respective divisions, and 'We-Ha-Yeo', a group of female employee representatives, serve to facilitate communication between employees and the top management and to pursue the innovation of our organizational culture. Both 'Green Board' and 'We-Ha-Yeo' help develop our own organizational culture through quarterly CEO meetings, division-level communication, training, volunteer work, charity bazaars and other bottom-up approaches that engage employees. They have also served as facilitators in disseminating and spreading execution-driven management in 2017 by promoting communication of this new management philosophy to respective divisions,

### Culture that Values Employee Communication

Program	Description
Green Board	An employee consultation body operated to improve the work environment and to establish execution-driven management as part of our organizational culture
We-Ha-Yeo	A communication channel that aims to create a flexible organizational culture and raise the morale of female employees
Happy Talk	A counseling program through which team leaders and their team members have conversations to facilitate communication and to build consensus

### Organizational Chart of Green Board/We-Ha-Yeo



### Future-oriented Activities

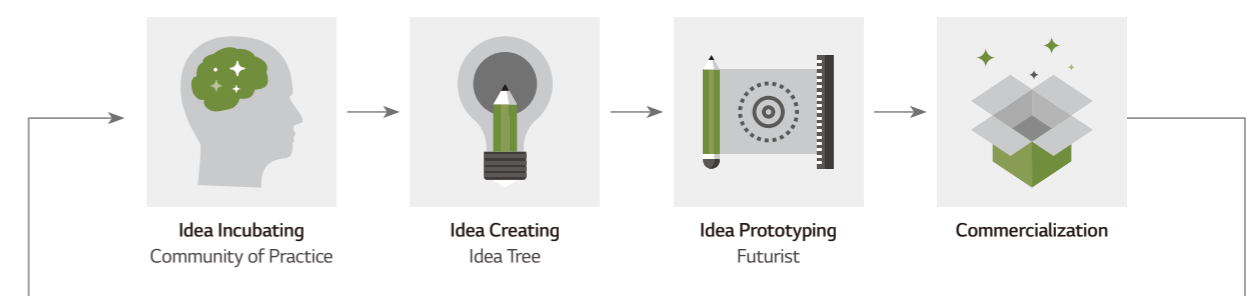
Program	Description
Community of Practice	A support program that encourages employees' self-initiated learning in their fields of interest related to business operations
Idea Tree	An idea suggestion program to allow employees to present their ideas on specific business topics
Futurist	A contest program to identify ideas that can lead to business opportunities as a way to prepare for the future in new businesses/products/areas

sharing best practices, and by identifying leaders to take the initiative in practicing execution-driven management.

### Future-Oriented Activities

Driven by the self-initiated engagement of our employees, we are building a future-oriented organizational culture at LG Hausys.

### Strengthened Alignment among Future-oriented Programs



## Compensation System

4

We operate a performance-based employee evaluation system to build a market-leading organizational culture and to reinforce our execution capability to maximize business outcomes. It is based on such performance-oriented HR management principles that respect the creativity and autonomy of individual employees that we provide competitive wages and reward programs.

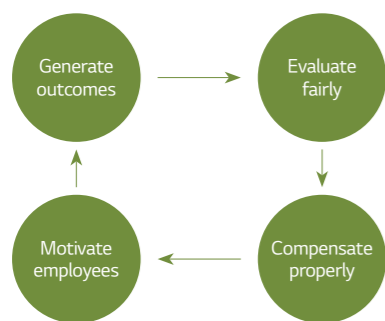
### Fair Assessment System and Continuous Feedback

Our endeavors to ensure fairness in assessing the performance of our employees include quarterly reviews, the Assessment Review Committee, and evaluator capacity-building training. We conduct quarterly progress reviews to help employees strengthen their execution capability to reach the set goals while offering regular performance feedback and coaching to improve the fairness and acceptability of evaluation outcomes. As part of the year-end assessments, the Assessment Review Committee performs comprehensive assessment reviews that take into account any contributions to business operations and organizational specificity, in addition to individual performance and competence. We also provide mandatory e-learning to evaluators to improve their capacity in conducting fair and objective assessments.

### Performance-based Compensation System

Our compensation system consists of cumulative and non-cumulative components based on performance-driven principles : the cumulative annual salary scheme compensates individuals differently based on their previous year's

LG's Performance-driven Principles



### Reward Programs

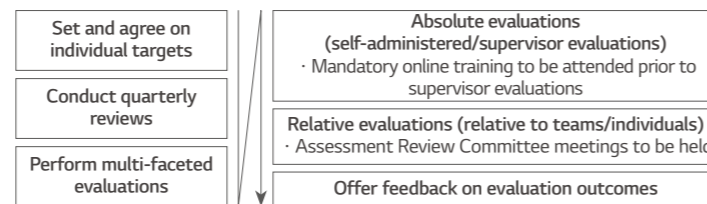
R&D Awards, Design Jump	On-Spot Incentive	Innovation Festival	Business Division-level reward programs
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### Employees Subject to Regular Performance Evaluations and Career Development Reviews

Category	2014	2015	2016
Employees subject to these evaluations and reviews (No. of persons)	1,983	2,091	2,059
Ratio of employees subject to these evaluations and reviews (%)	99.6	99.9	99.8

\* Target : Office workers in Korea (excluding executives and senior-level employees)  
\* Ratio of employees subject to relative evaluations out of the total number of employees

### Evaluation Process



evaluation outcomes while the non-cumulative scheme is comprised of role-based pay, performance pay, On-Spot Incentives that reward exceptional performance, and organizational unit-level reward programs. Furthermore, we operate the R&D Awards, Design Jump, the Innovation Festival and other project-level reward programs for R&D and innovation initiatives in order to solidify our performance-driven HR principle of "High Performance, High Return."

### Expanding and Supporting Female Talent

We operate a wide range of programs to ensure the vocational security of our female employees. We provide maternity leave and flexible work hours to help women secure a proper work-life balance as well as options for part-time hours to fully support the Korean government's policy to promote a better work-life balance. Furthermore, we consistently manage and assist our female employees to be assigned to appropriate positions and promoted to leadership positions.

### Maternity Leave Data

Category	2014	2015	2016
Employees who took maternity leave (No. of persons)	23	45	23
Reinstatement rate (%)	89	92	83
Ratio of employees who worked for more than 12 months following their reinstatement (%)	94	100	92

## Employee Welfare

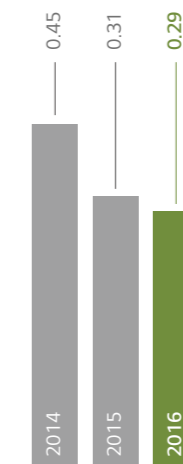
5

At LG Hausys, we offer a broad range of welfare programs to create a work environment that satisfies the needs of our employees. Our communication programs that highlight the psychological stability of our employees, along with our employee health care programs, ensure that our employees can fully engage in their work based on their physical and mental well-being.

### Counseling Programs

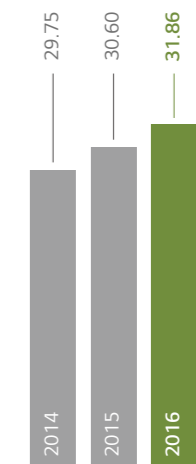
We are clearly aware of the importance of mutual understanding among employees and the need for each employee to be psychologically stable. Thus, we provide our employees with specialized EAP counseling, occupational counseling and other diverse counseling programs to help them improve their psychological well-being.

Occupational Injury Rate\*  
(Unit : %)



\* Occupational injury rate : Ratio of injured employees per every 100 employees per year (No. of injured employees ÷ No. of employees X 100)  
\* Scope : Korean establishments

Ratio of Employees Diagnosed with Specific Medical Conditions\*  
(Unit : %)



\* Employees diagnosed with specific medical conditions : Employees suspected of suffering an ailment as a result of a medical check-up. Grade C requires observation and Grade D is diagnosed with specific conditions or diseases in accordance with the criteria set by the Korea Occupational Safety and Health Agency.

Program	Main Activity	Details	Note
Specialized EAP counseling	· Support to address job stress and personal issues	· Individual level (healing-prevention-growth) · Support for psychological stability, Counseling to manage distress, Counseling on personal life issues · Organizational level (job engagement) · Improve communication skills among employees · Address conflicts	263 sessions
Occupational counseling	· Enable professional communication on job-related issues	· Provide counseling on issues that arise in professional life as well as on career issues	Nine additional counselors were trained (in 2016 from 2015)

### Employee Health Care Management

We place top priority on promoting the health and safety of our employees, and provide education, training, and assessment programs at respective work sites.

Program	Description
Management of those diagnosed with specific medical conditions	· Provide counseling by industrial health doctors for those diagnosed with general/job-related diseases · Conduct in-house blood testing and provide regular follow-ups · Monitor employees through health care plans and department-level counseling records
Preventive management	· Operate in-house smoking cessation clinics and fitness programs · Train department-level emergency medical staff and install automated external defibrillators
Health check-up	· Provide comprehensive medical check-ups as part of the employee welfare program · Provide general/specialized check-ups and conduct health check-ups before/after assignments
Specialized health check-ups	· Provide specialized health check-ups based on the type of work conditions employees are exposed to (noise/dust/organic solvent/specific chemicals/heavy metal)
Additional cancer screening	· Blood tests/gastroscopy/abdominal and thyroid ultrasonography

### Occupational Safety and Health Committee

We sign official agreements with our labor union in relation to employee health and safety, and host the quarterly Occupational Safety and Health Committee meetings attended by equal numbers of labor and management representatives. In addition to preventive initiatives focused on production departments and possible health and safety loopholes, employee representatives are engaged in half-yearly reviews of the work environment as a way to address health and safety issues.



## Protection of Labor Rights

6

### Global Labor Policy

We fully respect the provisions set by the agreements made by the International Labor Organization (ILO), the 'UN Guiding Principles on Business and Human Rights' proposed by the UN Human Rights Commission, and other standards and regulations set by international organizations and groups in the fields of labor and human rights. In 2016, we established the <LG Hausys' Global Human Rights & Labor Policy> which declares our commitment to 'guaranteeing and respecting the right to human dignity, freedom and happiness as fundamental value,' and its full version is available on our corporate website.

#### Global Labor Policy

- Respect for Human Dignity
- Work Hours
- Prohibition of Forced Labor
- Wages and Benefits
- Prohibition of Child Labor
- Freedom of Association
- Non-Discrimination Policy

### Labor Relations

We build and practice a labor-management partnership that values engagement and cooperation. In so doing, we generate sustained outcomes and secure a top-notch competitive edge to improve the quality of our employees' life. The ultimate goal of this partnership is to establish community-oriented labor relations that contribute to the development of our society. To this end, we operate a unique three-dimensional

\* Links to the LG Hausys Global Human Rights and Labor Policy  
Korean : <http://www.lghausys.co.kr/kor/util/manage/inkwon.jsp>  
English : <http://www.lghausys.com/company/sustainability.jsp#gubun=5>

labor relations model on the three pillars of business management, shop floor operations and collective bargaining to fully engage and seek cooperation from our employees. Furthermore, major changes in business operations require sincere consultations with the labor union as stipulated by the collective agreement to strengthen the foundation for labor-management cooperation. If there is any expected change of status concerning union members or their work conditions, the labor union must be notified in advance to allow for sufficient consultation. As of the end of 2015, the ratio of unionized production workers amounted to 99.2%.

Ratio of Unionized Workers (As of the end of the concerned year)

Category	2014	2015	2016
Unionized workers (No. of persons)	1,073	1,067	1,016
Ratio of unionized workers (%)	99.8	99.2	99.7

### Labor-Management Community

We pursue engaging and cooperative labor relations : labor relations are built horizontally, not vertically, and employees and the top management respect each others' role on equal footing. Our executives host regular dialogues with employees, and we host quarterly management meetings. Annual sports events held by respective worksites also help revitalize our organization. Furthermore, we host quarterly labor-management conferences, and continuously undertake such activities as consultations concerning the scheduling of jointly-held events, the improvement and expansion of employee welfare facilities, and sharing business outcomes and major corporate schedules.

#### Labor Relations Vision

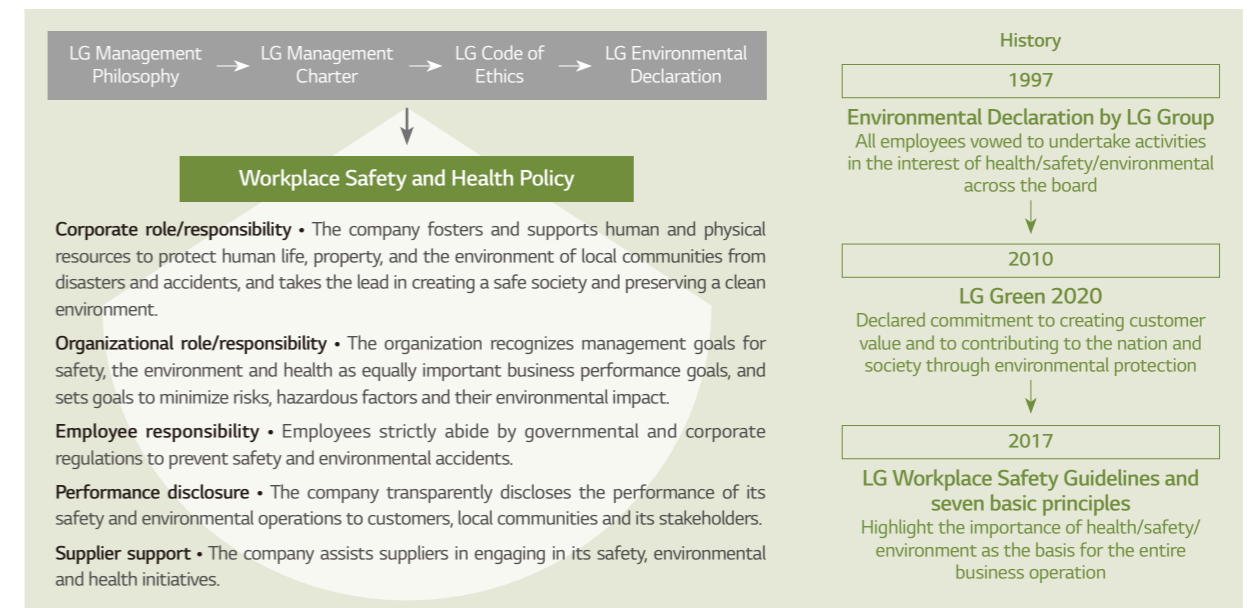


## Green Management

As social interest increases regarding both workplace safety and the environmental impact imposed by business conduct, we at LG Hausys advance 'Green Management' to minimize our environmental footprint throughout our entire business operations and pursue the beauty that comes from truly harmonizing with nature.

### Green Management Philosophy

At LG Hausys, green management is based on the LG Management Philosophy to 'create value for customers' and to 'respect human dignity.' This fundamental principle guided us to develop our workplace health and safety policy, which is based on LG's green management. It highlights corporate social responsibility and its role in the fields of environmental preservation and employee health and safety, which ultimately enables us to pursue harmony between our business conduct and the natural environment.



### Achievements and Goals

#### Build an eco-friendly workplace 1

##### Key achievements in 2016

- Switched to high-efficiency air pollution control equipment (Invested KRW 5.2 billion in total)
- Re-designated as a Green Company
- Preemptively responded to the Chemicals Management Act

##### 2017 plans

- Improve the quality of the ESH system by reestablishing position-based roles and in-house regulations
- Strengthen the monitoring system to prevent accidents
- Identify and improve on potential risk factors

##### Mid/long-term goals

- Minimize the discharge of environmental pollutants as well as the environmental impact during the manufacturing process

#### Respond to climate change 2

##### Key achievements in 2016

- Improved heavy energy-consuming equipment and their operational efficiency
- Used outside surplus steam
- Operated power storage devices

##### 2017 plans

- Optimize the operation of heavy energy-consuming equipment and use external heat sources
- Reduce the energy intensity composition by 10%

##### Mid/long-term goals

- Reduce energy consumption through process innovation and operational optimization
- Introduce renewable energy and external heat sources to reduce energy costs and GHG emissions

### Eco-friendly Workplace

1

At LG Hausys, we find multiple ways to minimize the discharge of pollutants into the air, water and soil systems as well as to prevent any safety and/or environmental accidents.

#### Atmospheric Environment Management

To improve the atmospheric environment, we actively embrace new technology and switch to new high-efficiency pollution control equipment and systems in order to improve our efficiency in treating air pollutants. We primarily operate Regenerative Thermal Oxidizers and electric precipitators as the optimal air pollution control equipment, and we built a monitoring system to prevent air pollution accidents and to monitor the operational status of such equipment in real time.

#### Water Environment Management

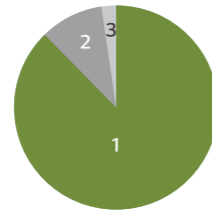
Across major areas of our worksites, air-water separator tanks are up and running to prevent the spread of pollutants, and emergency storage tanks were installed to prevent pollutant leaks to offset any damage imposed by unintended environmental accidents. Alarms and dikes were also installed to prevent any leakage of liquid pollutants as well as the spread of such pollutants. Our Oksan Plant ensures that its floodgate automatically closes in response to the leakage of pollutants so that such pollutants are not discharged into the outside environment. As for the wastewater generated from our manufacturing process, wastewater treatment professionals are stationed at the in-house wastewater treatment facilities of respective plants 24 hours a day to monitor the quality of the treated wastewater. Furthermore, non-point pollution source treatment equipment is under operation to prevent nearby streams from being polluted by these sources.

\* Water intake at the Ulsan Plant : Surface water, tap water  
\* Water intake at the Cheongju Plant : Underground water, industrial water  
\* Water intake at the Oksan Plant : Tap water, industrial water

#### Hazardous Chemicals Management

Our Ulsan and Oksan Plants handle 14 types of hazardous chemicals – ranging from lead compounds and MEK to acetic acid ethyl. This prompted us to focus on developing alternatives to reduce our consumption of such harmful chemicals. We also installed such safety devices as dykes

#### Waste Management



1. Recycling  
**83.72%**

2. Incineration  
**11.68%**

3. Landfill  
**4.6%**

#### Recycling Process



→ pre-consumer recycle  
→ post-consumer recycle

and gas detectors around the storage facilities of harmful chemicals to prevent fires, explosions or leaks caused by these chemicals within the workplace while appointing managers at each spot in charge of managing hazardous chemicals to thoroughly examine the relevant facilities.

#### Waste Management

We are fully engaged in the governmental policy to promote resource conservation and recycling. Since 2008, we have signed voluntary recycling agreements with the Ministry of Environment concerning our flooring and window profile products to develop a recycling system that includes the development of recycling technology, the expansion of collection systems and support for recycling service providers. We reuse the internal scraps generated within our plants for the manufacturing process, and develop and adopt raw material formulations to maximize the use of external scraps that are generated from the conversion of end-of-life products disposed of following consumer use back into resources. In 2016, we recycled 83.72% of the waste generated at our major worksites.

#### Environmental Investment

We are constantly increasing our investment in environmental improvements – from process enhancements, eco-friendly product design and production, reduction of GHG emissions and energy use, to work environment improvements and environmental conservation.

#### Ozone-Depleting Substance Management

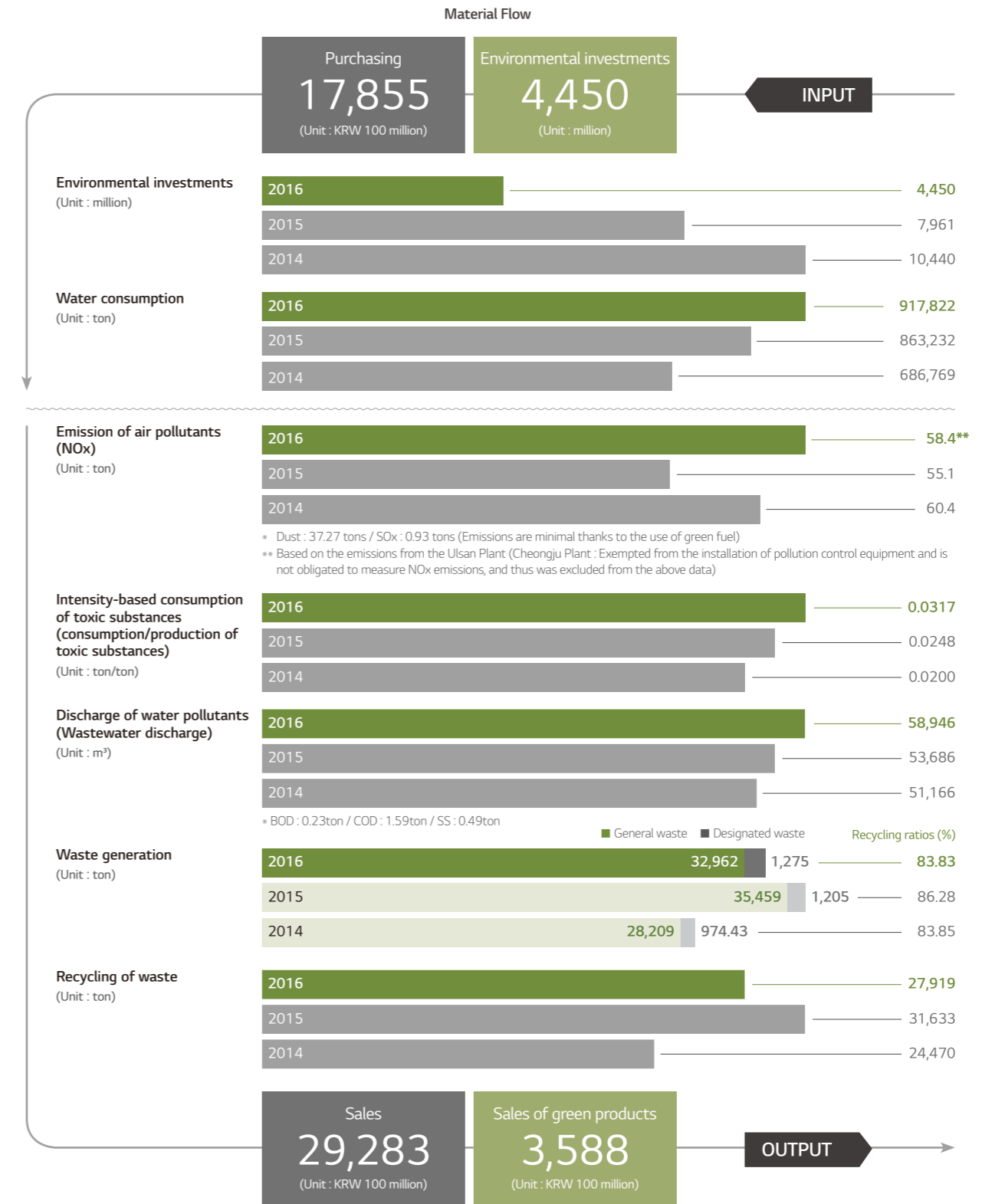
We do not produce any ozone-depleting substances as defined in the Montreal Protocol nor use such substances in our manufacturing process. Yet, CFC-based substances are contained in a portion of the refrigerants of the freezers used for product freezing and air conditioning, and halon is used in some of our fire extinguishers. We plan to replace such equipment with cleaner and greener ones or adopt water-based fire extinguishers.

#### Minimizing Our Impact on the Ecosystem

Since 1990, our Ulsan Plant has voluntarily conducted quarterly water quality inspections and environmental impact assessments on the Heoya River system as part of its ecosystem conservation initiatives. A total of 13 locations, from the Heoya Dam to Ganggunaru where the

river meets the sea, are analyzed and managed for six items (COD, SS, pH, etc.), and if deemed necessary, measurement data is provided to the relevant authorities. Our Oksan Plant signed an agreement with the Geum River Basin

Environmental Office to improve the water quality of the nearby Miho Stream, and is engaged in such activities as ditch clean-ups, planting, and daily environmental education for local residents.

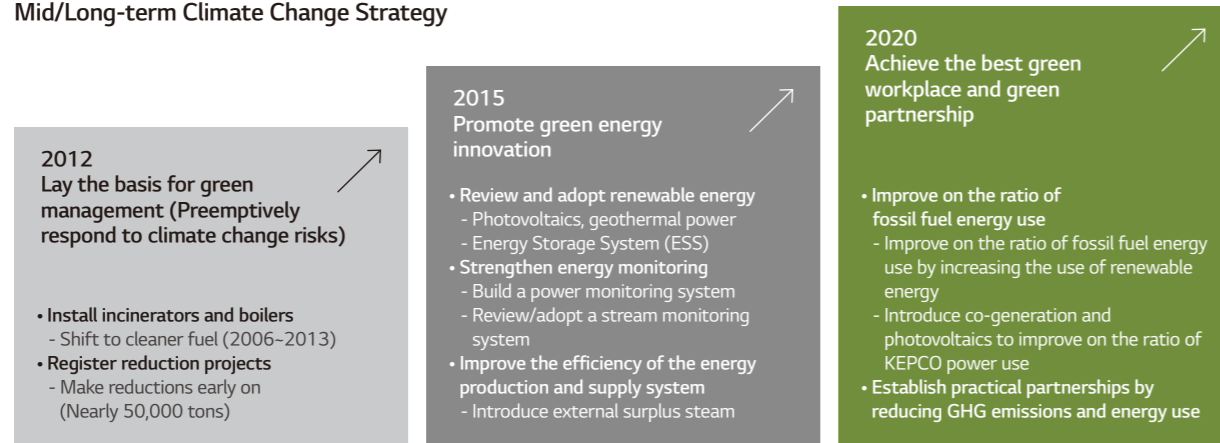


## Response to Climate Change

2

We proactively respond to climate change risks through continued energy conservation and process innovation. We are subject to the GHG emissions trading scheme launched in Korea in 2015, and thus will endeavor to reduce our GHG emissions in multiple ways, including the adoption of renewable energy and external heat sources.

### Mid/Long-term Climate Change Strategy



### Reducing Energy Use and GHG Emissions

We constantly reduce our energy consumption and GHG emissions. In 2016, we invested KRW 4,090 million to undertake such reduction projects, which resulted in KRW 6,229 million in total savings and in 9,612 tCO<sub>2</sub>eq in reduced GHG emissions.

Category	2014	2015	2016
Investments (KRW million)	3,641	7,310	4,090
Annual Savings	364	235	349
Achieved	18,334	15,903	9,612
Reduction in energy use (TJ)	6,458	4,348	6,229
Reduction in GHG emissions (tCO <sub>2</sub> eq)			
Energy savings made (KRW million)			

Category	2014	2015	2016
Energy			
Direct energy (TJ)	1,004	1,008	973
Consumption <sup>1)</sup>			
Indirect energy (TJ)	1,725	1,622	1,748
Total energy consumption (TJ)	2,729	2,630	2,719
GHG Emissions <sup>2)</sup>			
Scope 1 (tCO <sub>2</sub> eq)	51,229	51,403	49,604
Scope 2 (tCO <sub>2</sub> eq)	80,934	77,134	82,694
Scope 1 + Scope 2 (tCO <sub>2</sub> eq)	132,164	128,537	132,296
Scope 3 (tCO <sub>2</sub> eq)	-	-	131,807
Intensity-based emissions (tCO <sub>2</sub> eq/ton)	0.5053	0.4922	0.4353

GHG Emissions Target and Achievement in 2016  
(Unit : tCO<sub>2</sub>eq)



· Scope : Korean workites

1) Scope of energy use calculation : Ulsan (including Onsan), Cheongju and Oksan Plants

2) Scope of GHG emissions calculation

-Scope 1 : Direct emissions generated by the use of energy through fuel burning

-Scope 2 : Indirect emissions generated by the use of power, heat, and steam

-Scope 3 : Other indirect emissions generated through products and services purchased, employee commuting, overseas business trips, waste treatment, etc.

## Key Energy Use/GHG Emissions

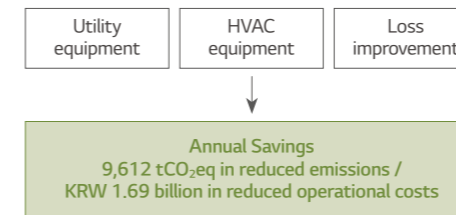
### Reduction Initiatives

#### Energy Saving TFT

We established energy saving TFTs across our Korean plants to engage all our employees in energy conservation.

#### Improving Heavy Energy-Consuming Equipment

We are replacing old boilers, compressors, water equipment and pipes with new ones to improve the efficiency of our utility equipment while making system improvements and supplementing our cooling/heating devices, air-conditioning equipment and other HVAC systems to reduce our energy consumption. The Ulsan Plant improved on the losses generated from thermal materials and utility pipes, as well as its heating performance, while the Oksan Plant examined its steam traps and replaced old traps with new ones throughout the plant. This resulted in KRW 1.69 billion in annual savings of operational costs and in 9,612 tons in total CO<sub>2</sub> emissions reduction.



#### Building an Energy Storage System at the Oksan Plant

We have been operating a 1.5MWh-capacity Energy Storage System (ESS) since 2015, and this enabled us to save KRW 26 million in 2016 by reducing maximum power loads and allowing for day/night-time charging and discharging.

### Energy-Saving Slogans at the Cheongju/Oksan Plants

Make Energy Deposits!

<p><b>Before turning on the heater</b></p> <p>Check for any leaks from steam traps</p> <p><small>Nearly KRW 1 million is wasted when leaks occur from 3mm holes</small></p>	<p><b>The right indoor temperature</b></p> <p>Winter 20°C Summer 26°C <small>(Based on Korea Energy Agency guidelines)</small></p> <p>Maintain the right indoor temperature and stay healthy!</p>	<p><b>Eliminate losses from idling</b></p> <p>Cut off main steam and air when idling</p> <p>Make a habit to turn devices off!</p>	<p><b>Pay attention to one's surroundings</b></p> <ul style="list-style-type: none"> <li>• Are there any steam or air leaks?</li> <li>• Is there anything that is under-heated?</li> </ul> <p>Take immediate action upon noticing anything unusual.</p>
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### Energy-Saving Slogans at the Ulsan Plant

Reach 2.4% in energy composition ratio

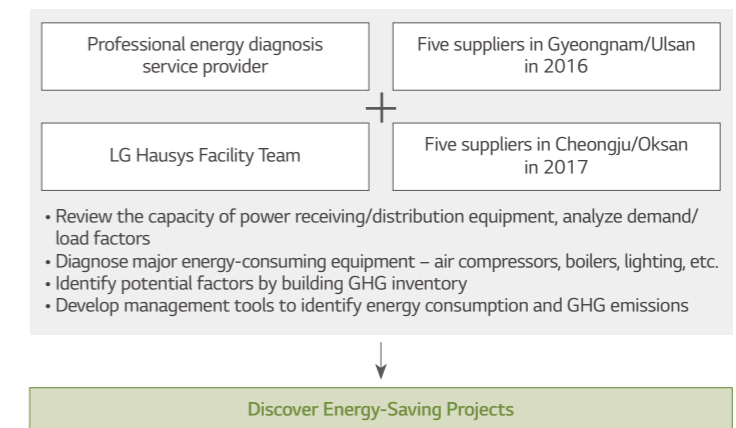
Turn off   Pull   Fasten   Comply   Focus

**Five Energy-Saving Habits**

- ① Turn-off : Idling equipment, lighting, computers
- ② Pull : Unplug - Cut off standby power
- ③ Fasten : Prevent losses due to the leak of solids, liquids or steam
- ④ Comply : Equipment maximum/minimum heat standards, standard cooling/heating temperatures (19°C in winter, 27°C in summer)
- ⑤ Focus : Focus on work (job) to improve yield (efficiency) (Prevent losses from having to do things twice)

### Promoting Shared Growth through Green Partnerships

Since 2015, we have assisted our suppliers in minimizing (eliminating) risk factors from carbon emissions generated by the manufacturing process and in supporting their initiatives to develop reasonable energy use plans. This ultimately reduces their GHG emissions and energy consumption through the 'energy-saving journey joined together by large businesses and SMEs'.



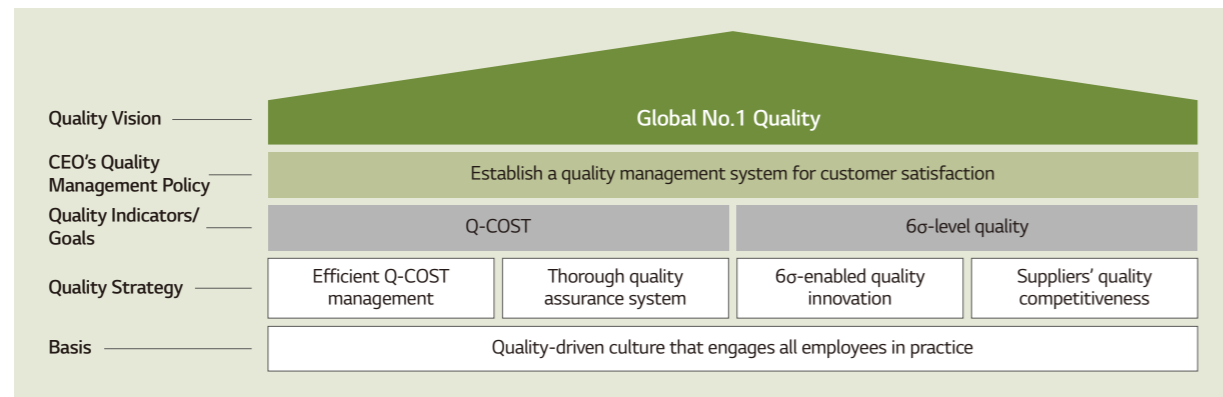
# Quality Management

PERFORMANCE 4

Our quality vision 'Global No. 1 Quality' embodies our commitment to deliver top-notch quality goods and services to our customers. Thus, we expand our direct communication with customers along the entire process of production, sales and the use of our products.

## Quality Management System

In line with the quality management policy of our CEO, we set the key management targets of quality level improvements, talent promotion, and an internal/external failure cost ratio review through Q-COST management, while focusing on the following four strategies to achieve our quality vision.



## Achievements and Goals

### 1 Strengthen our new product quality competitiveness from the customers' perspective

#### Principle & Strategy

Thoroughly verify the quality of new products, all the way from their development phase, to prevent any quality issues following their initial release.

#### Key achievements in 2016

- Strengthened the operation of Q-Gate
- Expanded the engagement of internal/external experts
- Reinforced the management of initial mass-production versions following the completion of development
- Laid the basis to conduct long-term reliability research in consideration of diverse use conditions
- Established the Reliability Research Team (Institute)
- Developed testing equipment that allows for simulations under extreme conditions and varied use environments

#### 2017 plans

- Standardize the Q-Gate verification
- Develop a systemic list of mandatory verification items by development grade and phase, and reinforce the long-term reliability verification at the research institute
- Develop acceleration testing tools, matchability analysis tools, and lifespan prediction simulation tools

### 2 Foster Six Sigma talent

#### Principle & Strategy

Foster quality experts to improve our execution capability in quality management and improvement activities

#### Key achievements in 2016

- Nurtured Six Sigma talent in the manufacturing and R&D sectors
- Realigned our talent training system across MBB/BB/GB\* levels
- Reflected the job promotions made in our HR system

#### 2017 plans

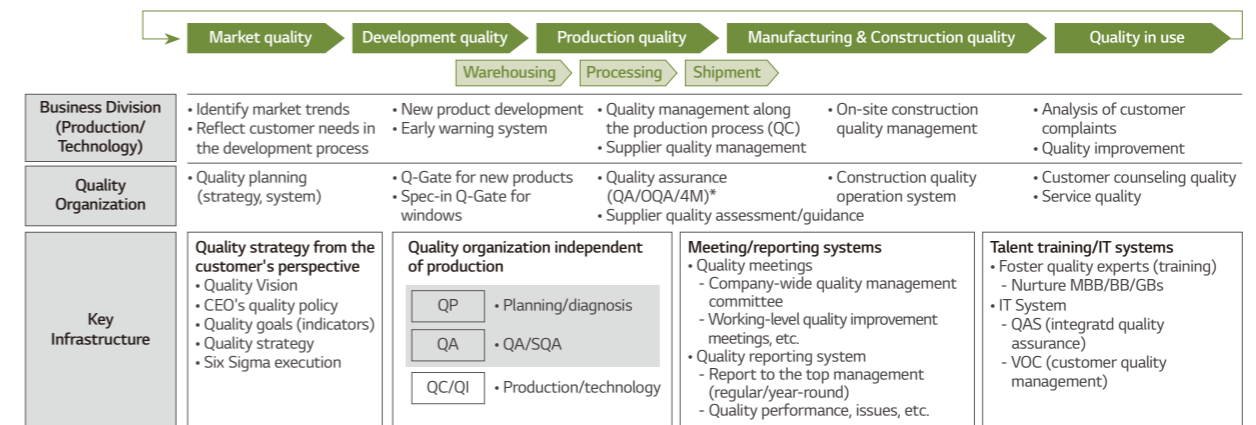
- Revitalize the Six Sigma initiative by accelerating talent nurturing
- Upgrade all employees in the development, manufacturing and quality operations to the GB level
- Accelerate the nurturing of BB-level employees
- Foster Key talent in respective worksites to MBBs

\* MBB (Master Black Belt) : Six Sigma experts who provide training and project guidance consulting  
BB (Black Belt) : Leaders in undertaking Six Sigma projects  
GB (Green Belt) : Working-level employees engaged in undertaking Six Sigma projects

## Quality Management Process

1

Our quality management system takes a consistent and customer-centered viewpoint, from product planning to the provision of services. We reflect customer complaints and needs in each of our processes, build and operate a quality assurance system from the customer's perspective, and constantly upgrade our key infrastructure to implement a consistent quality strategy.



\* QM (Quality Management) = QP (Quality Plan) + QA (Quality Assurance) + QC (Quality Control) + QI (Quality Improvement)  
\* IQA : Quality assurance of the raw/subsidiary materials in storage / OQA : Quality assurance of the products shipped / 4M : Variable factors in the production process (Man, Materials, Machine, and Method)

## Quality Management Programs

2

To realize our Quality Vision, we at LG Hausys operate broad-ranging programs, from product development to sales, to establish our quality management system. We have also developed a supporting IT system to pay even closer attention to quality management.

Quality	In-house	Market quality	Survey customer needs (product planning, research center)
Operation System	Development quality	Development	Quality assurance system for new products (Q-Gate)
		Production quality	Long-term reliability verification (research center)
Use quality	Production quality	Production quality	Perform quality inspections (initial product/mass-produced product, specialty)
		Use quality	Verify quality uniformity before/after 4M change
		Use quality	3R5S initiative
		Use quality	Customer counseling and claim handling
Supplier	Quality inspection	Quality inspection	Customer counseling and claim handling (friendly response, handling speed, etc.)
		Quality inspection	Early Warning System
		Quality inspection	Establish/revise inspection standards, sign inspection agreements
		Quality inspection	Regular (H1/H2), non-regular (new suppliers, suppliers with issues)
Quality Culture	Quality guidance	Quality guidance	Basic quality (inspection and measurement equipment management, 3R5S initiative, etc.)
		Quality guidance	Support for suppliers with quality issues
Quality System	4M change	4M change	Receive reports on the 4M change, and verify quality uniformity
		Quality Culture	Nurture Six Sigma talent (MBB/BB/GB)
Quality System	Quality guidance	Quality guidance	Use Six Sigma improvement techniques (DMAIC, DFSS)
		Quality guidance	Reward outstanding quality and reprimand substandard quality
Quality System	Quality guidance	Quality guidance	Integrated quality assurance system (QAS)
		Quality guidance	Customer quality management system (VOC)*

\* Voice of Customers (VOC) : Real-time management of the entire process from receiving customer complaints to their resolution (handling time & outcomes, complaint analysis, etc.)

### Quality Management System Certification

Name of System	Ulsan	Oksan/Cheongju	Tianjin	Atlanta
ISO 9001	o	o	o	o
ISO/TS 16949 (automobiles)	o	N/A	o	o

## QAS (Quality Assurance System)

We ensure that any change in our manufacturing process does not affect product quality, and use an IT system to verify that our products meet quality standards, which demonstrates the robustness of our quality assurance system. In the case the manufacturing of new products is initiated or any change occurs in terms of raw materials, equipment or processes, our quality department performs verifications to make sure that this does not affect our product quality. In addition, such changes should be approved before their adoption so that we can be sure to deliver consistent quality to our customers. Furthermore, we implement a systemic process through which products should satisfy specific criteria as a result of the testing performed by our quality department prior to their shipment to customers. This whole process represents our commitment to providing unrivaled quality to our customers by preventing any errors made by employees in the production and/or logistics process and by strictly prohibiting the distribution of defective products.

## Reliability Verification at the R&D Center

At LG Hausys, we monitor all our product line-ups for their quality in terms of market, development, production and use quality. Specifically, long-term reliability verifications are performed in the

development phase to ensure that our consumers can use our products easily across wide-ranging conditions. To this end, our R&D Center is researching ways to verify the durability, light stability and weather resistance of our products, as well as acceleration testing methods, to verify quality in a more expedient and accurate manner. For products with urgent quality issues, we conduct precision analyses to identify root causes and to support the development of solutions to ultimately contribute to preventing the reoccurrence of such issues.

### Fostering Six Sigma Talent

Since 2013, we have reinitiated our Six Sigma programs and laid the groundwork for them by offering quality training. In 2016, we aligned our MBB/BB/GB certification program with our HR system to strengthen our talent fostering policy. In so doing, we nurture problem-solving experts who take the lead in undertaking quality projects, and encourage our employees to engage in quality improvement initiatives. In 2017, we aim to reach 3.5% and 40% in the ratio of MBB and BB respectively.

## Expanding Customer Communication

3

We operate wide-ranging communication channels, from on/off-line programs to community operation, in order to facilitate customer access to our products and to reflect their feedback in our products and business conduct.

### Strengthening Online Customer Contact Points

We are diversifying our online contact points for customers. From the Z:IN brand website that provides total interior information to the Z:IN Mall where customers can purchase our materials and our corporate social network channels created to communicate with customers, we are reinforcing our online service to improve consumer accessibility to our products. In 2017, we plan to open a Z:IN instagram webpage to reflect the latest communication trends, and to identify premium content

through Naver Post, an content platform operated by Korea's largest online portal : Naver.

- Z:IN website (www.z-in.com)
- Z:IN Mall (www.z-inmall.com)
- Z:IN blog (blog.naver.com/lghausys\_zin)
- Z:IN Facebook (www.facebook.com/LGHausys.Zin)

### Strengthening Off-line Customer Contact Points

We are operating 18 offline showrooms where customers come to experience and purchase our products. In 2017, four showrooms are slated to open in Jeonju, Wonju and other areas, which will further reinforce our offline contact points for customers.

### Facilitating Customer Communities

Our representative interior community Z:ENNE, which consists of prosumers and brand ambassadors as well as our PPL (product placement programs) that sponsor our materials and showrooms for TV shows, allow us to take a step closer to our customers. By providing information to customers while collecting their instant feedback, we will deliver products and conduct business in a way that caters to customer needs.

## Customer Data Privacy

4

We undertake broad-ranging security initiatives in accordance with Korea's 'Act on the Promotion of Information & Telecommunications Network Use and Information Protection' and 'Personal Information Protection Act'. Furthermore, our capability to safeguard customer's personal information was further enhanced as we obtained the ISMS (Information Security Management System) certification in April 2017. Notably, separate data privacy training is provided to our employees and supplier employees who handle customer's personal information in their business operations. We also established company-wide data security policies and a long-term roadmap to strengthen our data security system and organization while operating a data security organization to improve relevant execution capabilities.

## SPECIAL ISSUE

### Z:ENNE

Z:ENNE represents our interior community that consists of our brand ambassadors and prosumers and is engaged in our overall product promotion and marketing activities. During their one year term, Z:ENNE disseminated the diverse news of LG Hausys through word of mouth and created high-quality content to ultimately serve as a communication channel between LG Hausys and its customers. From 2017 onwards, we expanded the scope of Z:ENNE member recruitment from Seoul and Gyeonggi to the whole nation to broaden its operational zone.



#### Represent customer needs and suggest possible improvements

These prosumers suggest their ideas on Z:IN products and services to that we can create a green and healthy living environment for customers.

#### Perform on/off-line promotional activities in relation to Z:IN

These brand ambassadors practice the brand values of Z:IN – eco-friendliness, trust and expertise – and disseminate these values via on/off-line channels.

#### Create content from the customer's perspective

These content creators observe Z:IN from the customer's viewpoint and talk about the experience they have had with the interior solutions we offer.

# APPENDIX

Data Summary

Independent Assurance Statement

GRI G4.0/ISO 26000 Index

Membership and Initiatives

## Data Summary

### Economic Data

Profit/Loss Statement (Unit : KRW million)

Item	2014	2015*	2016
Sales	2,792,135	2,686,952	2,928,337
Cost of sales	2,120,755	1,947,243	2,133,198
Gross profit	671,380	739,709	795,139
Selling & administrative expenses	522,837	584,375	638,148
Operating income	148,543	155,334	156,991
Non-operating profit & loss	△ 34,705	△ 39,168	△ 41,808
Continuing business profit before tax	113,838	116,166	115,183
Corporate tax	45,924	26,588	35,225
Profit & loss from discontinued operation	△ 4,325	△ 18,416	△ 5,210
Net income	63,589	71,162	74,748

Balance Sheet (Unit : KRW million)

Item	2014	2015*	2016
Current assets	931,684	1,006,985	1,051,445
Notes and accounts receivable	482,143	486,825	604,169
Inventories	249,218	266,776	268,539
Non-current assets	1,092,765	1,223,571	1,234,451
Tangible assets	992,493	1,110,499	1,113,413
Assets held for sale	32,616	21,195	0
Total assets	2,057,065	2,251,751	2,285,896
Current liabilities	718,249	712,261	803,725
Non-current liabilities	508,755	661,902	544,808
Total liabilities	1,227,004	1,374,163	1,348,533
Paid-in capital	50,000	50,000	50,000
Capital surplus	618,208	618,208	616,466
Other capital items	△ 8,189	△ 8,189	△ 8,189
Aggregate of other universal profit & loss	△ 16,609	△ 12,060	△ 13,449
Retained earnings	182,964	226,559	292,535
Non-controlling interest	3,687	3,070	0
Total equity	830,061	877,588	937,363
Total equity and liabilities	2,057,065	2,251,751	2,285,896

\* On a consolidated basis  
\*\* Indicates a negative value

### Risk Management Strategy

Due to our broad-ranging business operations, we are exposed to diverse financial risks from market risks and credit risks to liquidity risks. In general, our risk management policy focuses on minimizing any potentially negative impact on our financial outcomes.

### Risk Management System

Our central funding department (Financial Departments of companies who operate on a consolidated basis) is responsible for risk management, and the Financial Departments of companies that operate on a consolidated basis closely cooperate with their working-level departments in order to identify, assess and avoid financial risks. The central funding department provides not only documented policies on such specific areas as currency risks, interest rate risks, credit risks, the use of derivatives and non-derivatives and investments that exceed our available liquidity, but also on general risk management policies.

### Market Risk Management

We systematically manage market-induced risks, which include currency risks as well as cash flow and fair value interest rate risks.

### Currency Risk

Since our sales operations span the globe, we are exposed to currency risks and specifically to exchange rate risks related to the U.S. dollar. Currency risks usually occur in relation to expected future transactions as well as perceived assets and liabilities. Our top management develops policies so that companies that operate on a consolidated basis can manage the currency risks of their own functional currency, and such companies consult with their financial departments to manage their perceived assets and liabilities along with any possible currency risks related to expected future transactions. Currency risks occur when expected future transactions, as well as perceived assets and liabilities, are denominated in currencies other than functional currency. Thus, companies on a consolidated basis use their currency risk management model to ensure that their maximum currency losses generated by exposure to currency risks do not exceed the acceptable risk boundary. Meanwhile, we make a specified number of investments at our overseas worksites,

and their net assets are exposed to currency translation risks. Such risks are managed by way of loans denominated in relevant currencies.

### Cash Flow and Fair Value Interest Rate Risks

At LG Hausys, our interest rate risks are primarily caused by loans. Loans extended at floating interest rates naturally expose us to cash flow and interest rate risks, and a portion of such interest rate risks are offset by the interest rate risks generated from cash equivalents at floating rates. Furthermore, loans extended at fixed interest rates expose companies that operate on a consolidated basis to fair value interest rate risks. As of the end of the reporting period, loans taken out by companies that operate on a consolidated basis with floating rates are floating-rate loans denominated in foreign currencies. Companies that operate on a consolidated basis perform multi-faceted analyses on their exposure to interest rate risks. They reduce the ratio of high-interest rate loans in their loan portfolio, improve on their long/short-term loan structure, conduct comparative analyses on loan conditions (fixed vs. floating rates), and monitor interest rate movements in Korea and overseas while developing countermeasures as a way to manage their interest rate risks. Based on such interest rate risk management policies, our profits/losses for the current term may increase or decrease by up to KRW 203 million (previous term : KRW 136 million) due to fluctuations in financial profits/losses that may occur when interest rates rise or dip by 0.1% in relation to loans at floating rates.

### Tax Strategy

LG Hausys stringently complies with the tax laws and relevant regulations of Korea and those nations where our overseas branches are based while faithfully meeting our obligation for tax reporting and payment. We implement tax policies to effectively reduce tax payments and prevent double taxation within the boundary of tax laws to strengthen our competitive edge in the global market and to enhance shareholders' value. We also respond to the requirements of tax authorities in a reasonable manner. Each year, we specify in our audit report information on our corporate tax expenses, deferred corporate taxes and valid tax rates while externally disclosing such information through the Data Analysis, Retrieval and Transfer System of the Financial Supervisory Commission. In so doing, we vow to sincerely fulfill our responsibility to pay taxes in a transparent and sound manner so that we become a company respected by society and customers.

## Data Summary

### Creating and Distributing Material Economic Value

<b>Dividend payout to shareholders</b> <small>(Unit : KRW billion)</small> <b>18</b>	<b>Shareholders &amp; investors</b> • LG Hausys constantly strives to maximize value for shareholders who are the true owners of the company. We return profits we generated to our shareholders via cash dividend payout. In 2016, KRW 1,800-worth cash dividends per common share were paid to our shareholders, and our EPS amounted to KRW 7,524.
<b>Goods and services purchased</b> <small>(Unit : KRW billion)</small> <b>1,785.5</b>	<b>Suppliers</b> • We procure goods and services from our suppliers and we maintain fair and sustained business relationships with them. In 2016, we purchased goods and services worth KRW 1.7855 trillion in total from 1,413 suppliers. Nearly 44% of these purchases are made directly in the local community where we are based.
<b>Salary, welfare benefits and retirement pay</b> <small>(Unit : KRW billion)</small> <b>405.8</b>	<b>Employees</b> • We paid our employees with salary, welfare benefits and retirement pay. We will continue to expand the distribution of economic value to our employees by sharing our business outcomes fairly and introducing diverse welfare programs.
<b>Corporate taxes &amp; other taxes and public utility charges</b> <small>(Unit : KRW billion)</small> <b>51.7</b>	<b>Government</b> • We transparently disclose the outcomes created through our business conduct, and faithfully pay corporate taxes, income taxes, real estate taxes and other taxes to the central and local governments.
<b>Local community investment</b> <small>(Unit : KRW billion)</small> <b>1.7</b>	<b>Local community</b> • We undertake social-giving initiatives via local infrastructure support funds, sponsorship for arts & educational events and programs. In so doing, we return the economic value that we generated to our local communities.

		2014	2015 <sup>1)</sup>	2016
Shareholders & Investors	Dividend per share (KRW)	1,800	1,800	1,800
	Earnings per share (EPS) (KRW)	6,456	7,188	7,524
	Total dividend payout (KRW 100 million)	180	180	180
Employees	Salary <sup>2)</sup> (KRW 100 million)	2,723	2,932	3,159
	Welfare benefits (KRW 100 million)	645	725	637
	Retirement pay (KRW 100 million)	268	226	262
Government	Corporate taxes & other taxes and public utility charges (KRW 100 million)	593	411	517
Suppliers	Purchase of products and services (KRW 100 million)	18,826	17,493	17,855
Local Communities	Investment in local communities (KRW million)	999	1,551	1,731

1) Revised by reflecting the discontinuation of our PSAA business in 2015

2) There is no pay disparity between genders.

### Environmental Data

#### Management System Certification (Initial Certified Date)

Name of System	Ulsan	Cheongju	Oksan*	Tianjin	Atlanta
ISO14001	1996.12	1997.09	1997.09	2013.11	2013.06
KOSHA18001	2000.11	2009.12	-	N/A	N/A
OHSAS 18001	2013.11	1999.12	1999.12	-	2013.06
Green Company	1995.12	1995.12	-	N/A	N/A

\* Our Oksan Plant was grouped together with our Cheongju Plant during the certification process and thus shares the same initial certified date on the certificate.

#### Consumption of Primary Raw Materials (Unit : ton)

Category	2014	2015	2016
PVC	138,241	130,818	136,278
Calcium carbonate	82,299	89,083	96,131
Plasticizer	33,701	31,286	31,345
MMA	17,192	15,904	20,790
Total	271,433	267,091	284,543

#### Energy Consumption (Unit : TJ)

Category	2014	2015	2016	
Energy	990.9	995.2	959.9	
Consumption	LNG	12.9	12.4	12.2
	Diesel	0.5	0.4	0.4
	Gasoline	1570.9	1,558.9	1634.3
	Electricity	154.0	62.7	67.8

\* Consumption of recycled materials : 21,633 tons

#### Plant-Specific Environmental Data

Category		Ulsan			Cheongju			Oksan	
		2014	2015	2016	2014	2015	2016	2015	2016
Energy consumption	Direct energy (TJ)	928	860	830	77	17	1.63	131	141
	Indirect energy (TJ)	1015	989	1,037	710	259	265	374	446
	Total energy consumption (TJ)	1,943	1,849	1,867	787	276	267	505	587
Water consumption (ton)		593,324	708,963	758,116	93,445	54,493	42,915	99,767	116,791
GHG emissions	Scope1 (tCO <sub>2</sub> eq)	47,305	43,874	42,353	3,923	893	114	6,636	7,137
	Scope2 (tCO <sub>2</sub> eq)	49,309	48,034	50,339	31,625	11,505	11,798	17,596	20,557
	Scope 1 + Scope 2 (tCO <sub>2</sub> eq)	96,614	91,907	92,691	35,549	12,397	11,912	24,232	27,694
Discharge of wastewater	Wastewate (m <sup>3</sup> )	47,560	44,414	51,476	3,606	584	562	8,688	6,908
	BOD (ton)	0.1	0.31	0.08	0.07	0.05	0.15	0.38	0.006
	COD (ton)	1.22	1.13	1.53	0.1	0.01	0.23	0.49	0.035
	SS (ton)	0.36	0.65	0.46	0.08	0.02	0.002	0.29	0.026
Discharge of waste	General waste (ton)	14,019	14,897	17,333	14,190	3,168	2,568	17,393	13,061
	Designated waste (ton)	559	559	665	415	402	311	244	299
	Recycled waste (ton)	11,364	12,117	14,368	13,106	2,335	2,139	17,181	12,194
	Recycling rate (%)	77.9	78.4	79.8	89.7	65.4	74.3	97.4	91.3

\* We do not produce any of the ozone-depleting substances defined in the Montreal Protocol : nor do we use such substances in our manufacturing.

\*\* 2016 Scope 3 consumption : 131,807 tCO<sub>2</sub>eq

## Independent Assurance Statement

### Introduction

LG Hausys, Ltd. ("LG Hausys") commissioned DNV GL Business Assurance Korea Ltd. ("DNV GL"), part of DNV GL Group, to undertake independent assurance of Sustainability Report 2017 (the "Report"). DNV GL's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review has been provided in good faith.

### Scope of Assurance

The scope of assurance included a review of sustainability activities and performance data over the reporting period from 1<sup>st</sup> January to 31<sup>st</sup> December 2016. This included :

- Evaluation of the Report on the adherence to the principles for defining the sustainability report content set forth in the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines 4.0
- Evaluation of adherence to AccountAbility principles set forth in AA1000 AccountAbility Principles Standard (APS) 2008.
- Evaluation of the process to determine the material aspects for reporting and the management approach to material issues and the process for generating, gathering and managing the quantitative and qualitative data in the Report.

### Basis of Our Opinions

We performed our work as per AA1000AS (2008) and we provide Type 1 engagement and a moderate level of assurance as stated in AA1000AS. The audit was carried out in April through June 2017 and the site visits were made to the Headquarters in Seoul and Oksan Plant in Korea. We undertook the following activities as part of the assurance process :

- Challenged the sustainability-related statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls; interviewed representatives from the various departments
- Conducted document reviews, data sampling and interrogation of supporting databases and an associated reporting system as they relate to selected content and performance data; reviewed the materiality assessment report
- Paid site visits to LG Hausys Oksan Plant and tested its data gathering process

### Limitations

The engagement excludes the sustainability management, performance and reporting practices of LG Hausys's associated companies, subsidiaries, suppliers, contractors and any third-parties mentioned in the Report. DNV GL did not interview external stakeholders as part of this Assurance Engagement. Financial statements of LG Hausys, data announced on DART system of the Financial Supervisory Service (<http://dart.fss.or.kr>), and data on its website ([www.lghausys.co.kr](http://www.lghausys.co.kr)) are not included in the scope of assurance. Data assurance was conducted by checking the basis in a limited scope, including inquiry, analysis, and limited sampling method, on the data collected by LG Hausys. The aggregation and calculation process for building economic performances is reviewed by the verification team. Also, environmental and social data were verified using the aggregated data. The directors of LG Hausys have sole responsibility for the preparation of the Report. The responsibility of DNV GL in performing the assurance work is to the management of LG Hausys in accordance with the terms of reference. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

### Conclusions

On the basis of the work undertaken, nothing comes to our attention to suggest that the Report does not properly describe the adherence to the Principles in AA1000APS (2008) nor is prepared 'in accordance' with GRI G4 Core option. Further opinions with regards to the adherence to the following Principles in the AA1000APS (2008) are made below;

#### The Foundation Principle of inclusivity

LG Hausys has identified internal and external stakeholder groups such as Shareholders and Investors, Employees, Customers, Suppliers, Local Communities. LG Hausys engages with the stakeholders at the company and business unit levels through various channels. In the future, LG Hausys could present the reasonable expectations and interests of stakeholders and report more actively corresponding actions taken in the Report.

### The Principle of Materiality

LG Hausys has conducted materiality assessment to prepare the Report. 35 issues have been derived by analysing the topics covered in various global initiatives and standards, industry peers' reports and journalist reports. Subsequently 6 material issues are prioritized based on the stakeholder survey results. In particular, LG Hausys has tried to normalize materiality assessment result with internal sustainability panel consisting of the representatives from respective departments. The verification team has reviewed the materiality assessment process and nothing comes to our attention that would cause us to believe that material issues identified from the assessment are not reported.

### The Principle of Responsiveness

LG Hausys has established the sustainability governance and implements sustainability management. Stakeholders' opinions and expectations are considered. Sustainability key issues for each area are presented with performances in 2016, management plan for 2017 and mid-to long-term goals, which helps a reader of the Report understand the sustainability of LG Hausys. The Report covers all sustainability aspects including economic, environmental and social. The verification team has reviewed the governance and performance management processes. Nothing comes to our attention that would cause us to believe that the Report does not respond to stakeholder issues that affect its performance.

### Accuracy & Reliability

We found a limited number of non-material errors and these were corrected prior to inclusion in the Report. The data presented in the report were gathered from the teams responsible for data control in LG Hausys. The verification team interviewed the Person-in-charge, reviewed the process of gathering and processing data and information, and the supporting documents and records. The depth of data verification is limited to the aggregated data. Based on sampling verification and other reported information and available evidence, nothing comes to our attention that would cause us to believe that the data and information presented in the Report have any intentional error or material misstatement.

### Findings in Relation to Specific Sustainability Performance Information

DNV GL reviewed Other indirect greenhouse gas emissions (Scope 3 emissions) in 2016 for purchased goods and services, Downstream leased assets, Upstream and downstream transportation and distribution, Waste generated from operations, employee commuting and overseas business trip. The emission is calculated in the GHG accounting tool (MS-Excel based) provided by LG Hausys. Nothing comes to our attention that would cause us to believe that the Scope3 emissions presented in the Report have any intentional error or material misstatement. As part of the verification process, the audit team :

- Reviewed formula and emission factors applied in LG Hausys' Scope 3 accounting tool (MS-Excel based)
- Interviewed data owner of LG Hausys' for the emission information and data collection process.

### Competence and Independence

DNV GL Business Assurance is part of DNV GL Group and a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. Our environmental and social assurance specialists are present in over 100 countries. The assurance work was performed by independent team which meets DNV GL's competence requirements. DNV GL was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. The verification team has complied with DNV GL's Code of Conduct.

June 2017  
Seoul, Korea



In Kyo Ahn  
Country Representative  
DNV GL Business Assurance Korea Ltd.



## GRI G4.0/ISO 26000 INDEX

The LG Hausys Sustainability Report 2017 was prepared in accordance with the Core Options of the GRI (Global Reporting Initiative) G4 Guidelines, and indicates the level of reporting for both general and specific standard disclosures as well as external assurance indexes.

### GRI G4 General Standard Disclosures

Aspect	Indicator	Contents	Page	Note
Strategy and Analysis	G4-1	Provide a statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability	4-5	
	G4-2	Provide a description of key impacts, risks, and opportunities	5	
Organizational Profile	G4-3	Report the name of the organization	9	
	G4-4	Report the primary brands, products, and services	10-11	
	G4-5	Report the location of the organization's headquarters	9	
	G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	9	
	G4-7	Report the nature of ownership and legal form	54	
	G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries)	9, 21-23	
	G4-9	Report the scale of the organization, including : Total number of employees, Net sales, Total capitalization, and Quantity of products or services provided	9	
	G4-10	Report the total number of employees	59	
	G4-11	Report the percentage of total employees covered by collective bargaining agreements	64	
	G4-12	Describe the organization's supply chain	76	
	G4-13	Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	2, 21-23, 76	
	G4-14	Report whether and how the precautionary approach or principle is addressed by the organization	12, 35, 38, 44, 75	
	G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	83-84	
	G4-16	List memberships of associations and national or international advocacy organizations	83-84	
	Identified Material Aspects and Boundaries	G4-17	List all entities (subsidiaries and joint ventures) included in the organization's consolidated financial statements or equivalent documents	Business Report
G4-18		Explain the process for defining the report content and the Aspect Boundaries	13	
G4-19		List all the material Aspects identified in the process for defining report content.	13-15	
G4-20		For each material Aspect, report the Aspect Boundary within the organization	13	
G4-21		For each material Aspect, report the Aspect Boundary outside the organization	13	
G4-22		Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements	2	
G4-23		Report significant changes from previous reporting periods in the Scope and Aspect Boundaries	2	
G4-24		Provide a list of stakeholder groups engaged by the organization	13	
Stakeholder Engagement	G4-25	Report the basis for identification and selection of stakeholders with whom to engage	13	
	G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process	13-15	
	G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	13-15	
Report Profile	G4-28	Reporting period for information provided	2	
	G4-29	Date of most recent previous report	2	
	G4-30	Reporting cycle (such as annual, biennial)	2	
	G4-31	Provide the contact point for questions regarding the report or its contents	2	
	G4-32	Report the 'in accordance' option the organization has chosen	2, 80-83	
	G4-33	Report the organization's policy and current practice with regard to seeking external assurance for the report	2, 78-79	
Governance	G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts	54-55	
	G4-38	Report the composition of the highest governance body and its committees	54-55	
	G4-39	Report whether the Chair of the highest governance body is also an executive officer	54-55	
	G4-40	Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members	54-55	
	G4-44	Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics	54-55, Business Report	
	G4-45	Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities	54-55	
	G4-47	Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities	54-55	
	G4-50	Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them	54-55	
G4-52	Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Report any other relationships which the remuneration consultants have with the organization	54-55, Business Report		
Ethics and Integrity	G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	56-57	
	G4-57	Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity	56-57	
	G4-58	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity	56-57	

### GRI G4 General Standard Disclosures

Aspect	Indicator	Contents	Page	Note	
<b>Environmental</b>					
Energy	G4-DMA	Management Approach	68		
	EN3	Energy consumption within the organization	68-69		
	EN5	Energy intensity	68-69		
	EN6	Reduction of energy consumption	68-69		
	EN7	Reductions in energy requirements of products and services	32-33		
	Water	G4-DMA	Management Approach	65	
		EN8	Total water withdrawal by source	67, 77	
EN9		Water sources significantly affected by withdrawal of water	66		
Emissions	G4-DMA	Management Approach	65		
	EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	68, 77		
	EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	68, 77		
	EN18	Greenhouse gas (GHG) emissions intensity	68, 77		
	EN19	Reduction of greenhouse gas (GHG) emissions	68-69		
	EN20	Emissions of ozone-depleting substances (ODS)	66		
	EN21	NOx, SOx, and other significant air emissions	66-67		
Effluents and Waste	G4-DMA	Management Approach	65		
	EN22	Total water discharge by quality and destination	67, 77		
	EN23	Total weight of waste by type and disposal method	67, 77		
	EN24	Total number and volume of significant spills	-	No such spills occurred	
	EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	66		
	Products and Services	G4-DMA	Management Approach	29	
EN27		Extent of impact mitigation of environmental impacts of products and services	32-33		
EN28		Percentage of products sold and their packaging materials that are reclaimed by category	66		
<b>Labor Practices and Decent Work</b>					
Occupational Health and Safety	G4-DMA	Management Approach	35		
	LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	64		
	LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	36-37, 64		
	LA7	Workers with high incidence or high risk of diseases related to their occupation	36-37, 64		
	LA8	Health and safety topics covered in formal agreements with trade unions	36-37, 64		
Training and Education	G4-DMA	Management Approach	58		
	LA9	Average hours of training per year per employee by gender, and by employee category	60		
	LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	62		
<b>Society</b>					
Anti-competitive Behavior	G4-DMA	Management Approach	41		
	SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	45	No relevant violations occurred	
<b>Product Responsibility</b>					
Customer Health and Safety	G4-DMA	Management Approach	29		
	PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	32-33		
	PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	-	No relevant violations occurred	

## GRI G4.0/ISO 26000 INDEX

## GRI G4 Specific Standard Disclosures-Other Disclosures

Aspect	Indicator	Contents	Page	Note
<b>Economy</b>				
Economic	EC1	Direct economic value generated and distributed	74	
Performance	EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	68-69	
	EC3	Coverage of the organization's defined benefit plan obligations	Business Report	
Market Presence	EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	-	
Indirect Economic Impacts	EC7	Development and impact of infrastructure investments and services supported	76-77	
	EC8	Significant indirect economic impacts, including the extent of impacts	76	
Procurement Practices	EC9	Proportion of spending on local suppliers at significant locations of operation	76	
<b>Environmental</b>				
Materials	EN1	Materials used by weight or volume	77	
	EN2	Percentage of materials used that are recycled input materials	77	
Compliance	EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	-	No such non-compliance occurred
Transport	EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	-	
Overall	EN31	Total environmental protection expenditures and investments by type	66-67	
Supplier Environmental Assessment	EN32	Percentage of new suppliers that were screened using environmental criteria	41	
<b>Labor Practices</b>				
Employment	LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	59	
	LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	63	
Labor/Management Relations	LA3	Return to work and retention rates after parental leave, by gender	62	
	LA4	Minimum notice periods regarding operational changes	64	
Diversity and Equal Opportunity	LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	59	
Equal Remuneration for Women and Men	LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	Business Report	
Supplier Assessment for Labor Practices	LA14	Percentage of new suppliers that were screened using labor practices criteria	66-67	
Labor Practices Grievance Mechanisms	LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	63	
<b>Human Rights</b>				
Investment	HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	-	Sexual harassment prevention training was fully provided
Non-discrimination	HR3	Total number of incidents of discrimination and corrective actions taken	-	No such discrimination occurred
Freedom of Association and Collective Bargaining	HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	64	
Child Labor	HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	64	
Forced or Compulsory Labor	HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	64	
Assessment	HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	41, 64	
Supplier Human Rights Assessment	HR10	Percentage of new suppliers that were screened using human rights criteria	41	
Human Rights Grievance Mechanisms	HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	64	
<b>Society</b>				
Local Communities	SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	47-51	
	SO2	Operations with significant actual and potential negative impacts on local	66	
Anti-corruption	SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	41	
	SO4	Communication and training on anti-corruption policies and procedures	45	

## GRI G4 Specific Standard Disclosures-Other Disclosures

Aspect	Indicator	Contents	Page	Note
Compliance	SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	-	none
Supplier Assessment for Impacts on Society	SO9	Percentage of new suppliers that were screened using criteria for impacts on society	41	
<b>Product Responsibility</b>				
Product and Service Labeling	PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	-	<a href="http://www.z-in.co.kr/">http://www.z-in.co.kr/</a>
	PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	-	No such incidents confirmed in 2015
Marketing Communications	PR6	Sale of banned or disputed products	-	No such cases occurred
Customer Privacy	PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	-	No such incidents confirmed in 2015
	PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	72	

## ISO26000

Core Subject	Key Issue	Page	
Organizational Governance	Decision-making process and framework	54-55	
Human Rights	Due diligence	12, 64	
	Human rights risk situations	12, 64	
Labor Practices	Avoidance of complicity	12, 64	
	Resolving grievances	63	
	Discrimination and vulnerable groups	64, Business Report	
	Civil and political rights	64	
	Economic, social and cultural rights	20, 35-45, 47-15, 64	
	Fundamental principles and rights at work	64, Business Report	
	Employment and employment relationships	58-64, Business Report	
	Conditions of work and social protection	64, Business Report	
	Social dialogue	64	
	Health and safety at work	35-39	
The Environment	Human development and training in the workplace	60-61	
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## Membership and Initiatives

### Membership

Korea Chamber of Commerce and Industry	Korea Fair Competition Federation	Korea Specialty Construction Association
Korea Vinyl Environmental Council	Korea Employers Federation	Korea Economic Research institute
Korea Listed Companies Association	Green Company Council	Korea Air Cleaning Association
Korea Packaging Recycling Cooperative	Korean Association of Occupational Health Nurses	Korean Association of Occupational Health Nurses
Korea Industrial Safety Association	Korea Fire Safety Association	Korea Environmental Preservation Association
Korea Products Safety Association		

### This Report was Prepared By

Category	Name	
General	Publication	Dong-Joo Lee
Management	Planning and data collection	Seok-Jin Park, Young-Im Kim
	Design	Jin-Kee Min
Economy	Eun-Joo Kim, Jeong-Hyeon Kim, Hyung-Cheol Kim, Byung-Ki Min, Jin-Kyung Park, Byun Hyun ah, Kuk-Wghan Sung, Seo-Da Yun, Jin-Bok Jung, Seung-Geol Yoo, Ji-Young Choi	
Society	Eun-Sung Kwon, Tae-Wan Kim, Hye-Jin Kim, Ji-Hae Park, Eun-Jin Oh, Soon-Jung Yoo, Tae-Young Yoon, Dong-Han Lee, Hye-ji Lee, Sung-Hwan Chang, Jae-Yong Chang	
Environment	Jae-Ho Shim, Kwang-Hyun Lee, Ho-Soon Yu	