

**CREATIVITY
INSPIRED
HYOSUNG**

HYOSUNG

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2016 HYOSUNG SUSTAINABILITY REPORT

CREATIVITY INSPIRED HYOSUNG

HYOSUNG

2016 HYOSUNG Sustainability Report

HYOSUNG

With customers, with the world,
Hyosung is your trusted partner

In textiles, industrial materials, chemicals, power & industrial systems, construction, trade, information technology and other diverse business fields, Hyosung emerges as a top global enterprise based on excellent technology and services.

With 'GLOBAL EXCELLENCE' as its management philosophy, Hyosung strives to provide higher values to the lives of all its customers around the world.

Hyosung will grow into a reliable enterprise leading the global market with relentless challenges and innovations.



2016 HYOSUNG SUSTAINABLE DEVELOPMENT MANAGEMENT REPORT COVER STORY

To symbolize its firm commitment to becoming as a creative global company that exerts industry-wide influence with its original technology, Hyosung has adopted the "CREATIVITY INSPIRED HYOSUNG" typography as its basic design. Also, the circle surrounding the typography represents Hyosung's creative thinking that spreads out all over the world as well as the expansive scope of its business areas.



About This Report

Hyosung published its first Sustainability Report in 2012 to actively communicate with stakeholders and then published its second report in 2016. The 2016 Sustainability Report selects key issues of interest to our stakeholders including customers, partners, employees, and local communities. In the future, Hyosung will publish regular reports and use it as a place for interactive communication with stakeholders. In case of any modification related to the evaluation criteria and data collection scope, please refer to the bottom of the contents for the reasons for the change.

Reporting Principles

The 2016 Hyosung Sustainability Report was prepared in accordance with the GRI Global Reporting Initiative (GRI) G4 CRESO Guideline, which meets the 'Core' standard. All financial results are based on the consolidation criteria of K-IFRS: Korean International Financial Reporting Standards.

Reporting Period and Scope

The reporting period for this report is January 1, 2016 to December 31, 2016. Some important qualitative data include activity before 2015 and the first half of 2017, and quantitative data are grouped into three-year performances to identify trends. The scope of the report covers not just headquarters, but the domestic business sites of Textile, Industrial Materials, Chemical, Power & Industrial Systems, Construction and Trade PGs, including some of the activities and achievements of important overseas operations.

Verification

In order to ensure the credibility and fairness of this report, LRQA has verified this report in accordance with the AA1000 (2008) principles (inclusiveness, importance, responsiveness) and verification procedures based on ISAE 3000 data and process reliability principles to ensure reliability and fairness, and the results of the verification are contained in pages 95 through 96 of the report.

Question

If you have any questions or suggestions for improving this report, please contact us at the following address.

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“Hyosung has played a leading role in Korea’s extraordinary growth and has a history of challenges and accomplishments in various fields such as textiles, industrial materials, chemicals, power & industrial systems, construction, trade and information communication.”



CEO Message

Dear Stakeholders,

Thank you all who have generously supported Hyosung over the years. I am very pleased to greet you with our latest Sustainability Report. This year marks the 51st anniversary of the company’s establishment in 1966. Hyosung has been a driver of Korea’s economic growth, and we continue to push ahead with the legacy of daring ventures and accomplishments in various sectors, such as textiles, industrial materials, chemicals, heavy industries, construction, trade and ICT. In 2016, Hyosung achieved the most significant performance ever with customer-oriented management efforts and the enhancement of global competitiveness despite the global economic slowdown. Along with such economic achievements, Hyosung is doing its utmost to help create a better world in which all members of our society can share the joy of living in a safe and convenient environment, in accordance with our corporate mission, the Hyosung Way to “lead humanity to better lives with its best technology and exemplary management competence.”

Amid a continued slowdown of the global economy and rising protectionism, we expect that the business environment will continue to be difficult in 2017. However, we at Hyosung endeavor to overcome such challenges and reinforce our competence to change and innovate for constant growth, no matter how harsh the environment may be. We are committed to growing as a genuinely global company by developing top-notch technology, bolstering our competitiveness in production costs and product quality, fostering world-class talents for global business and strengthening our systems. Equally important to us is the task of improving customer value and nurturing a relationship of coexistence with our customers. To this end, Hyosung devotes itself to practicing customer-oriented management by paying constant attention to customers’ voices and exceeding their expectations. In addition, we will further strengthen our sustainable management system to become a trusted company.

We will make efforts to attain the United Nations Sustainable Development Goals (UN SDGs) by complying with international initiatives, such as the UN Global Compact (UNGC). To do so, Hyosung will foster environmentally friendly management as a new growth engine and put ethical management into action beyond simply taking on economic and legal responsibilities. Furthermore, we will strive to build a healthy business ecosystem by working towards a shared growth with customers and partner companies. Last but not least, Hyosung is committed to becoming a company that shares happiness with the wider society by wholeheartedly carrying out CSR activities at home and abroad.

Hyosung strives to continually improve itself to become a more trustworthy and beloved company for our various stakeholders, including shareholders, customers and partner companies. We are deeply grateful for the interest and affection you have shown us, and we promise to become a constantly growing company by actively bolstering communication with you and incorporating your voices.

We deeply appreciate your great interest and support. Thank you.

Chairman Hyun Joon Cho

A handwritten signature in black ink, appearing to read 'HJ Cho', written in a cursive style.

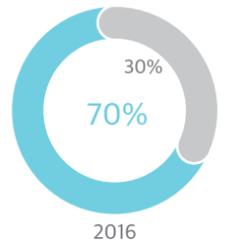
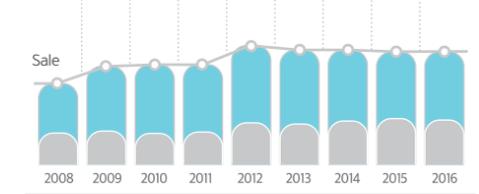
Global Excellence Hyosung

Hyosung is leading the market through continuous technology development that is needed to provide the high quality that our customers desire. Through an active foundation of a global manufacturing base, we have built a global network consisting of 83 business sites in 30 nations. Hyosung also satisfies its customers by providing products reflecting customers' tastes and lifestyles, thanks to its localization strategy.

Proportion of global sales

Export
Domestic
(In Separate F/S)

Proportion of overseas sales



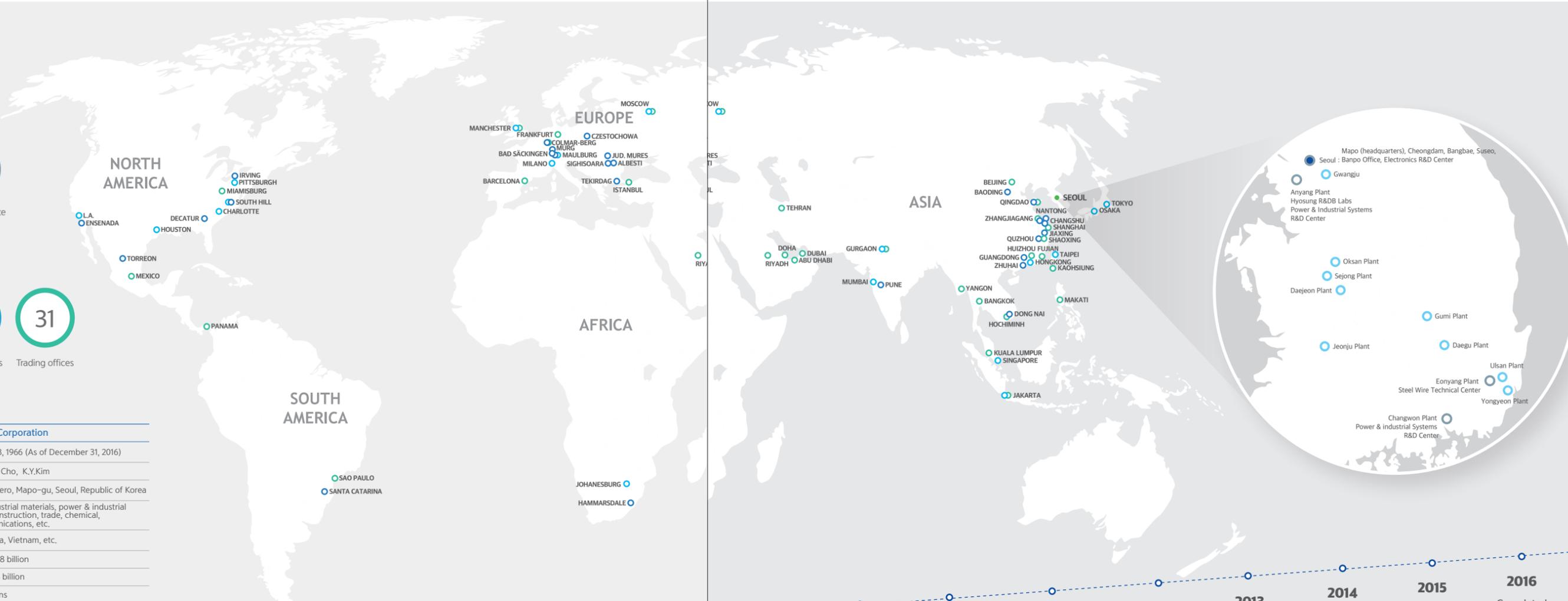
Domestic business sites



Overseas business sites



Company Name	Hyosung Corporation
Date of establishment	November 3, 1966 (As of December 31, 2016)
CEO	Hyun Joon Cho, K.Y.Kim
Headquarters location	119 Mapodaero, Mapo-gu, Seoul, Republic of Korea
Main business areas	Textile, industrial materials, power & industrial systems, construction, trade, chemical, telecommunications, etc.
Major business countries	Korea, China, Vietnam, etc.
Total Assets	KRW 14,120.8 billion
Operating Profit	KRW 1,016.3 billion
Employees	7,657 persons



1957
Established Hyosung Industry

1966
Established Dongyang Nylon Corporation

1972
Started exporting tire cord fabric to Southeast Asia

1989
Started PP and propylene businesses

1990
Started spandex business

1998
T&C, Trading, Living, and Heavy Industry Units merged into Hyosung Co., Ltd.

2002
Acquired Michelin's tire cord plant in the USA
Aerocool selected as one of the world's best products

2005
Completion of nylon film plant in Jiaxing, China

2006
Concluded contract with Goodyear for long-term tire cord supply

2008
Completion of spandex and tire cord plant in Vietnam

2010
Completion steel cord plant in Vietnam
Concluded business contract to set up power network in Qatar
Developed a high performance carbon fiber for the first time in Korea

2011
Completion of Brazilian Spandex plant
Concluded long-term steel cord Supply contract with Goodyear
Acquired Global Safety Textiles (GST)

2012
Added TAC film plant operations

2013
Completed the carbon fiber plant
World's first successful commercialization of Polyketone

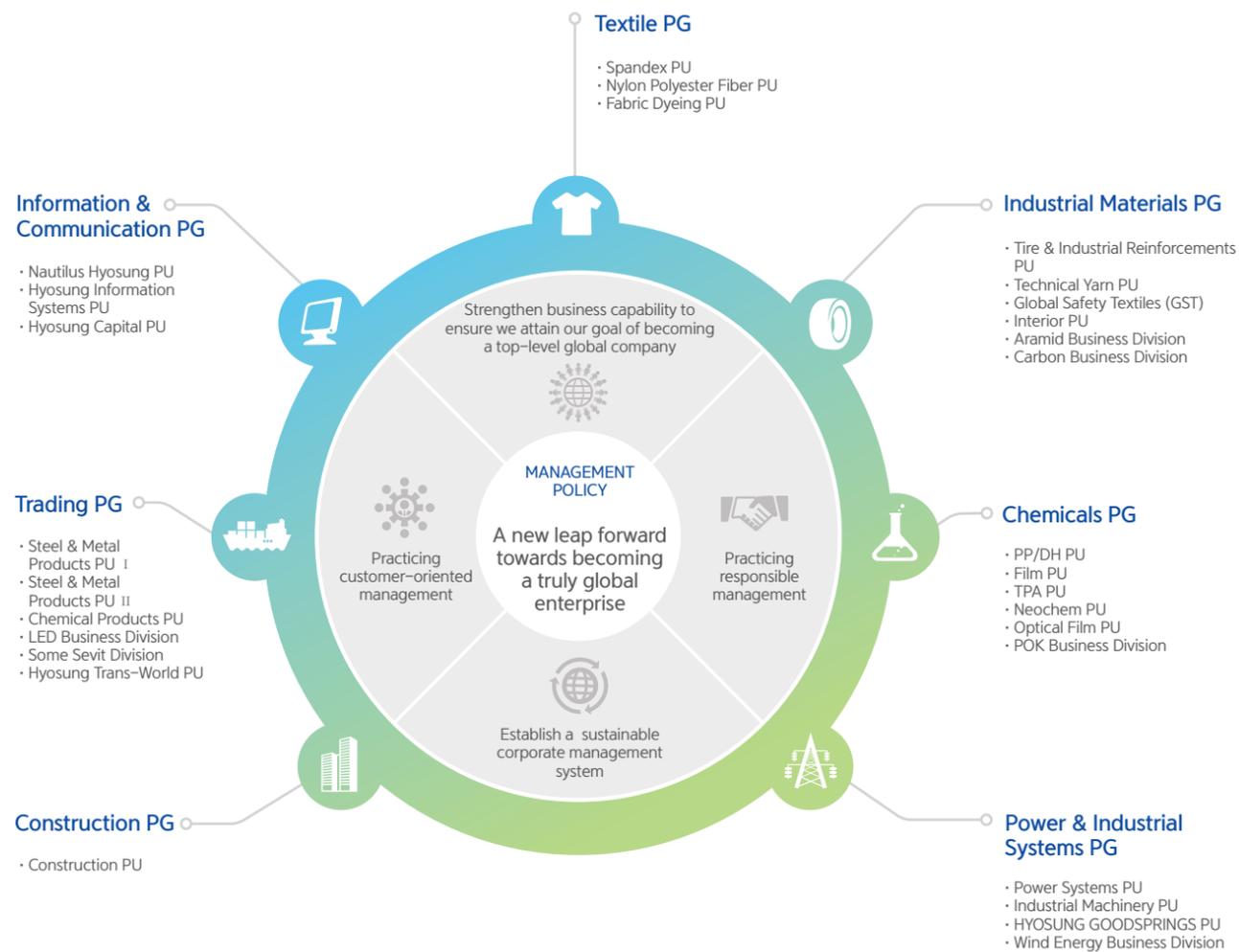
2014
Received a \$100 million order for a substation from Algeria

2015
Completed Yongyeon Polyketone and DH-2 plant construction

2016
Completed GIS plant construction in India
Completed the construction of an automotive floor carpet factory in Qingdao, China

Business Areas

Hyosung has been pursuing continuous growth and development since its foundation by expanding its business capabilities and profitability its profitability based on "value management through global excellence." By establishing a global network of innovation, challenge and core businesses, we are steadily enhancing our market position, accelerating our growth and becoming a top-tier global company.



Textile PG



Providing an innovative direction for the world textile industry that maximizes customer value

As the founding unit and core business of Hyosung's 50 years of history, the Textile PG has led global chemical textiles industry. Based on the best-level technology and production capacity, creora®, aerocool, askin and other world-class products. Hyosung will continue to lead the global market by continuously developing new products and advanced materials that suit customer needs.

Spandex PU

Since the start of spandex production in 1992, we have grown rapidly every year based on our own production technology and R&D capabilities. We have a spandex brand 'creora®' that was selected by world famous manufacturers in lingerie and swimwear, and we are building a global production base that covers Asia, Europe and South America, including China, Vietnam, Turkey and Brazil. We will develop yarns with various excellent functions that meet customer needs and feature the best quality and competitive power in the world.

Nylon Polyester Fiber PU

The Nylon Polyester Fiber PU produces a variety of highly functional yarns that have accumulated 40 years of know-how based on high-end lingerie, sportswear outdoor, yarn for industrial materials, and TOPLON. We are focusing on the development of high-tech materials to strengthen our customers' business competitiveness by developing microfibers through direct radiation method for the first time in the world. In addition, we are endeavoring to achieve sustainable growth by developing and expanding the production of differentiated products, such as dope-dyed fiber products, multifilament yarn and fine denier.

Fabric Dyeing PU

The Fabric Dyeing PU is concentrating on the development of products with high functionality and advanced functions with an integrated production system ranging from yarn production to weaving and finishing. We supply various fabric materials such as non-woven fabrics and spandex, which are excellent in durability and protection, and are recognized domestically as well as overseas based on our dyeing ability, which is at the highest-level in Korea.

Industrial Materials PG



We prioritize customer safety and happiness with the most suitable materials

Industrial Materials PG produces industrial fibers that are used in a variety of applications in the automotive, civil engineering, agriculture, military, transportation, and sports industries. We are striving to lead the global market centered on tire cords, industrial yarns for automobile seat belts, and airbag fabrics, which are number one in terms of world market share.

Tire & Industrial Reinforcements PU

Tire & Industrial Reinforcements PU produces and supplies fiber tire cord, steel cord and bead wire, which are the core materials of tire reinforcement, we are also the world's only integrated supplier for tire reinforcing materials. We also contribute to the development of the green industry and the IT industry through the production of saw wire, which is necessary for the production of semiconductors and solar cells wafers. It has been recognized for its technological advancement by signing a long-term supply contract with global clients such as Michelin and Goodyear. In particular, Hyosung has the largest market share in the polyester tire cord market in the world. In addition to the domestic Ulsan and Eonyang sites, we have established local production systems in China, Vietnam, USA and Luxembourg to supply more stable products to customers worldwide. We will try our utmost efforts to solidify our position as the leading company in the global market by providing differentiated materials and customized services.

Technical Yarn PU

Having developed an ultra-strength seat belt (10g/d) for the first time in the world, Technical Yarn PU is ranked first in the world market for seat belt yarn and first in the domestic industrial yarn market. It currently provides a variety of products such as polyester yarn for broad woven coated fabric and polyester yarn for airbags to its customers. To proactively respond to the needs of various customers all over the world and to provide differentiated products and services, we have established yarn production factories in China and Vietnam as well as Korea along with the warehouses in the United States. We will reaffirm ourselves as a trusted partner by providing the best products and services for all fields.

Global Safety Textiles (GST)

As the largest airbag fabric manufacturer in the world, Global Safety Textiles is producing flat fabric, OPW (One-piece-woven) and cushions for airbags. We have secured a high market share based on close cooperation with major automobile parts companies in the world. We have a wide range of products that meet customer needs and a value chain, which covers the latest process. Based in Germany, USA and China, we are actively pursuing global markets through global networks of four continents, seven countries, and ten production bases.

Interior PU

Interior PU is the only player in Korea that specializes in commercial and automobile carpets, equipped with its own production facilities from yarn to finished products. We have obtained ISO 9001, ISO 14001, TS 16949 and KS eco-friendly certification. We have established and implemented a perfect quality control system, such as passing quality tests in Korea, USA and China. Since its inception in 1983, we have secured the largest market share and have been expanding its exports all over the world. Having developed polyester tufted carpet for the first time in the world, it currently operates manufacturing sites in the U.S. and China to proactively respond to customer needs.

Aramid Business Division

Hyosung's aramid (ALKEX®), which is developed with our own technology, is stronger than steel, and is used in various industrial fields such as the defense industry in the production of armor, bulletproof helmets and vehicles as well as other industries such as the optical cable and automobile industries. As awareness of safety and environmental conservation grows, the demand for aramid, which has a strength five times greater than that of iron and self-flame-retardant characteristics has also been increasing.

Through continuous expansion of production capacity and research and development, we aim to meet various customer needs by launching various product lines.

Carbon Business Division

TANSOME® is the brand name for the carbon fiber that Hyosung succeeded in developing and commercialized for the first time in Korea. With its strength that is more than ten times higher than and its density only ¼ of that of steel, carbon fiber has been attracting attention as a key material for lightening products. It has been widely used for aviation applications, various industries, and the sports/leisure fields. Having secured a production capacity of 2,000 tons per year, we will expand our product portfolio through continuous research and development to become a global brand that will lead the industry in 2020.

Chemicals PG



Hyosung is always by your side to ensure every convenience of daily life with its chemical material technology.

Contributing to national economic development by selling various chemical products such as film and fluorine gas to the global markets through such products as Asia, Europe, and the Middle East, Chemical PG is leading the convenience of everyday life on the basis of cutting-edge raw materials of excellent quality. We are leading the global parts and components industry with excellent properties and competitiveness through such products as polypropylene, which occupies the highest market share in Korea, and POLYKETONE, which has been developed and commercialized for the first time in the world.

PP/DH PU

PP/DH PU produces and supplies 'Topylene,' a representative brand of polypropylene resin (PP). We created a stable supply base of vertical integration from raw material to finished products by producing and supplying polypropylene resin (PP) and self-procuring propylene as its raw material in propane dehydrogenation process (DH). Through market diversification, we are expanding the sales proportion of specialized products and securing profitability by developing new products.

Film PU

Film PU has achieved the top position in the nylon film market share in Korea. We have developed our own technology ranging from raw material polymerization to product production. We are striving to become a global leader in nylon film through capacity expansion. In polyester film, we will also become a market leader by developing electronic materials and high value-added products. Through customer-centered management, Hyosung will be reborn as the number one solution provider in plastic film.

TPA PU

TPA PU produces TPA of the highest quality based on advanced chemical technology and experience. TPA, a main raw material of high functional polyester fiber, is widely used as a raw material for various industrial and living materials such as tire cord, plastic bottle, and polyester film. We are striving to improve customer satisfaction by introducing the best quality and stable physical properties to our customers based on the chemical technology and cutting-edge technology that has been developed in the chemical industry. Through these efforts, we are contributing to the competitiveness of polyester-related manufacturers all over the world, not only in the domestic market but also in Asia and Europe.

Neochem PU

Neochem PU has been researching and developing NF_3 (Nitrogen Nitride), which is used in the manufacturing of advanced products such as semiconductors, LCDs, and solar cells. We continue to expand our production facilities and establish new factories in China. We are firmly establishing our business base by developing and producing various products.

Optical Film PU

Optical Film PU is developing and producing TAC film that protects polarizing film in LCD polarizing plates used in TVs, monitors, laptops, mobile phones, and so on. We have contributed to the development of the domestic LCD industry through the localization of TAC film. We are also continuing our efforts to find new growth engines by entering various optical film markets and actively pioneering overseas markets. Through continuous expansion of production facilities and R&D, we will reaffirm our position as an 'Optical Film Company with Global Competitiveness'.

POK Business Division

Polyketone, which was developed in-house by Hyosung and successfully commercialized for the first time in the world, is an eco-friendly high-molecular-weight new material composed of carbon monoxide and olefin, which is a main raw material of air pollution. It has excellent impact strength, chemical resistance, abrasion resistance and the best gas barrier rate among existing materials. In polyketone, we will lead the global engineering plastics market with the completion of the commercial plant.

Power & Industrial Systems PG



The future electricity grid system is becoming a new growth engine of green growth.

Power & Industrial Systems PG is recognized in the USA, the Middle East, and Europe for the quality of its world-class products of power transmission and distribution facilities such as transformers and breakers, the core part of industrial energy, and of industrial machinery facilities, which are the core of key industries. In addition, we will continue to find new growth engines for environmentally-friendly green technologies such as energy storage devices, STACOM, and smart grids, and we hope to become an eco-friendly company that will lead the global market.

Power Systems PU

Since its establishment in 1962, Power Systems PU has been supplying core products such as transformers and circuit breakers for the power supply in Korea and leading the domestic transmission and distribution facilities industry. Based on our advanced technology, we have secured the know-how of power equipment such as engineering, design, production and maintenance service in transmission, substation and power generation fields to provide customers with perfect quality and service. In addition, we will strengthen our competitive edge in the domestic and global markets by strengthening the electric power IT-based power automation business and the smart grid sector in order to respond to changes in the increasingly sophisticated and intelligent urban environment

Industrial Machinery PU

Industrial Machinery PU, the top industrial motor manufacturer in Korea, manufactures industrial motors, gears, generators, and chemical devices and other industrial machinery. It also provides super premium efficient motors and other energy-saving and highly reliable products with customer value enhancement as our top priority. Industrial Machinery PU supplies products to power plants and desalination facilities in Europe, Asia, and the Middle East, and secures global production bases in Vietnam, Germany, etc. and continuously enhances its technological capabilities through relentless product development and research.

HYOSUNG GOODSPRINGS PU

As Korea's largest pump producer and seawater desalination plant equipment supplier, HYOSUNG GOODSPRINGS is recognized for its world-class technology. We produce excellent pumps for a variety of applications, ranging from power plants to petrochemicals, ships, buildings/houses, industrial purposes and desalination facilities. We are also active in overseas markets and provide customers with the best solutions in all processes, including product quality, design, manufacturing and after-sales service. HYOSUNG GOODSPRINGS will grow into the world's best company with continuous innovation activities and customer satisfaction.

Wind Energy Business Division

Based on the technological prowess and know-how accumulated from the successful development and operation of 750kW and 2MW offshore wind turbines, we have obtained the international certification for the 5MW offshore wind power generation system for the first time in Korea and have been recognized as the producer of the best onshore and offshore wind turbines in Korea. By participating in the domestic offshore wind farm project, we are leading the domestic wind power market as well as preparing to become a global wind turbine manufacturer by entering into the global wind power market.

Construction PG



Building an Eco-friendly infrastructure sustainable for both humans and nature

The construction business is actively engaged in various construction projects such as domestic and overseas housing projects, redevelopment and reconstruction projects, business and commercial facilities, civil engineering, plant and SOC projects based on accumulated experience and technology. In addition, we are strengthening our business capabilities in environmental fields such as water treatment and waste disposal.

Construction PU

Construction PU, which introduced the first residential building in Korea, is creating a new space culture that harmonizes nature and technology in the fields of housing, architecture, civil engineering and plant. As a representative brand of Hyosung Construction PU, 'Harrington' is providing comfortable living space to customers through its excellent technology and accumulated know-how, striving to achieve customer satisfaction. At the same time, we comply strictly with the laws and regulations related to the environment and other requirements, and firmly pursue the principles of customer management and quality management.

Trading PG



Fostering new growth engines through the experience and infrastructure of global marketing services.

The trading business is focused on exporting Korean products and cross trade, mainly in steel and chemicals areas. Based on our network of over 50 branch offices around the world, we are able to provide the best service for customer satisfaction by quickly understanding the changing market trends and customer needs from all over the world. Through these efforts we have become a reliable partner for our customers.

Steel & Metal Products PU I

Centered on carbon steel plate products produced by major steel makers, we provide a total solution that encompasses the related raw materials and processing equipment. We also provide the best service to our customers through experts with deep technical knowledge regarding steel at the head office and overseas branches. In this way, Hyosung is achieving a highly sustainable growth.

Steel & Metal Products PU II

Steel 2PU, which exports products from major domestic steel makers, ships various steel products including stainless steel products and construction materials for construction all over the world. In addition, we are actively engaged in the multifunctional trade of third-country products, relying on steel related experts, to achieve a sustainable growth.

Chemical Products PU

Chemical Products PU, which is exporting various chemical products ranging from basic raw materials of petrochemicals to fine chemicals globally, is devoted to the development of various chemical products to diversify exports with global network and to advance into future growth businesses. Furthermore, by providing better services to diversified customers, we are striving to become a top global trader that not only expands but also leads the global market.

LED Business Division

LED, Light Emitting Diode, is becoming a next-generation lighting material because of its long lifecycle, low energy consumption, and small size. LED business Division is exporting various LED products, by providing total solutions for residential, industrial, and commercial LED lighting and applications that meet diverse customer needs and application environments. In addition, LED business Division is providing various energy-saving solutions based on LED lighting, and is positioning ourselves as eco-friendly low-carbon growth partners.

Some Sevit Division

Some Sevit Division operates the world's first waterfront cultural space and convention facility, Sevitseom, in the Han River, at the heart of Seoul. As the world's largest artificial floating island, Sevitseom is a building that stands on a floating body. It consists of three islands of Gavit, Chavit, Solvit, and water stage space, Yevit. Each space features beautiful scenery and offers diverse value.

HYOSUNG TRANSWORLD PU

HYOSUNG TRANSWORLD contributes to logistics cost saving and productivity improvement of customers by providing stable and effective logistics control for all types of freight such as bulk, plant equipment and project freight as well as containers. We are accelerating continuous management innovation and service development to raise customer value and satisfy customer requirements by providing the optimal logistics consulting on the basis of knowhow accumulated through more than 20 year experience and knowledge in logistics. We promise to always provide the highest level integrated logistics services for customers.

Information & Communications PG



From home to industry and financials we have established a smart, connected advanced network.

As a pioneer in the IT infrastructure and financial service automation sectors, Information & Communications Performance Group is making great endeavors to provide customers with convenience, based on its global competitive edge in various areas including automated financial devices, mid- to large-sized data storage systems, mobile solutions, the content delivery network (CDN) business, and LED business, which is gaining attention as a future growth industry.

Nautilus Hyosung PU

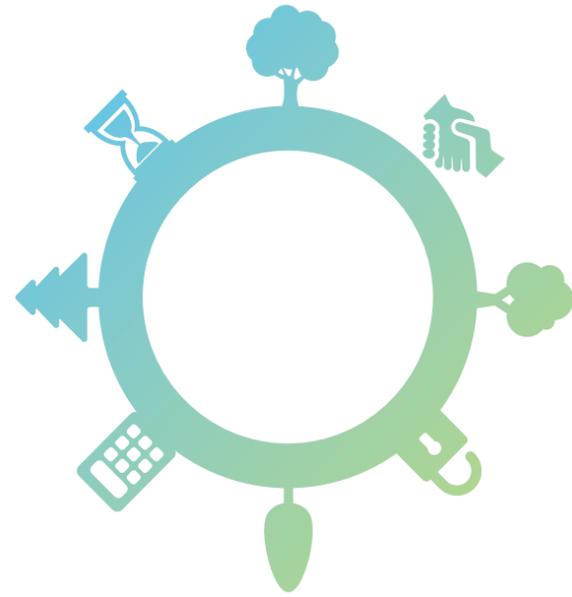
Launched as a financial IT company in 1979, Nautilus Hyosung aims to be an innovative company that provides integrated total solutions for financial service automation. We are advancing to be the leader of the world's financial IT industry by offering convenience and trust to users and profitability and competitiveness to corporate clients. With the undeniable No. 1 market share in the Korean ATM market, we have been exporting independently developed ATMs to 30 countries since starting to export in 1998 and grown into a global company, ranked first in market share in the U.S. and Indonesian ATM markets.

Hyosung Information Systems PU

Hyosung Information Systems, which was founded in 1985 and was the very first specialized IT company in Korea to supply mainframes and disks to public and financial organizations, currently provides IT solutions and services to companies in all industries spanning from finance, manufacturing and public service to communication fields and also to nearly 1,700 SI companies. Based on its technological support capabilities, with reliability proven in the field and global service network linked with the United States, Japan and Australia, we lead the growth of clients' business by providing major enterprise data center infrastructure such as storage, servers, and solutions including services for business innovation such as the cloud and big data.

Hyosung Capital PU

With a variety of products, Hyosung Capital provides financial services ranging from leasing, installment financing, loans and investment to individual and corporate clients that need capital. Based on the business capability and know-how as the No. 1 company in domestic facility leasing and medical equipment leasing, we have built varied private financial product portfolios, such as imported and domestic car leasing, installment financing for used cars and durable goods, housing loan and stock loans. In addition, we have fortified our capability and competitiveness as a total credit financing company by offering various corporate financial services, such as working capital loans and investment for promoting coexistence with small and medium enterprises in Korea. Hyosung Capital continues to push forward with its slogan, Total Credit Solution Provider.



SUSTAINABILITY REPORT

Hyosung's sustainability management is to fulfill its economic, social, and environmental responsibilities based on its mission to create better lives for people based on the best technology and management capability. Through communication and cooperation with various stakeholders such as customers, employees, suppliers, and local communities, we will continue to pursue corporate management that contributes to domestic and overseas issues, and we will take the lead in creating a sound ecosystem that enables both companies and society to grow together.

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Stakeholder Engagement and Materiality Assessment

Stakeholder Communication

Hyosung defines stakeholders as those who have a major influence on business activities, and has identified its five stakeholder groups as customers, employees, partners, shareholders/investors, and local communities. We listen to our stakeholders' opinions and operate various communication channels to reflect them in our management activities. We are creating a sustainable management environment by actively reflecting the needs of stakeholders in our management activities.

Stakeholder Interest	Communication Channel	CSR Main Issue
Customers	<ul style="list-style-type: none"> Corporate websites Customer satisfaction surveys Global exhibitions Management disclosure systems 	<ul style="list-style-type: none"> Development of top-class products through technology Customer satisfaction through quality control
Employees	<ul style="list-style-type: none"> Juggling Junior boards Bulletin boards Intranets etc 	<ul style="list-style-type: none"> Capacity building for employees and executives Improve organizational culture Improving employee satisfaction
Partner Companies	<ul style="list-style-type: none"> Partner company meetings Performance sharing exchanges Hot-line Partner Companies Portals 	<ul style="list-style-type: none"> Prohibition and prevention of unfair transactions Selection and evaluation of sustainable supply chains Increasing activities supporting partner companies
Shareholders/ Investors	<ul style="list-style-type: none"> Corporate IR activities Management Disclosure System Board of Directors, General Shareholders' Meeting Business Report 	<ul style="list-style-type: none"> Promoting fairness in performance outcomes and compensation Enhancing transparency in management information disclosure
Local Communities	<ul style="list-style-type: none"> Corporate IR Activities Management Disclosure System Business Report Sustainability Report 	<ul style="list-style-type: none"> Strategic social contribution Participation in local community development

Materiality Assessment

In order to determine the issues in this report, Hyosung conducted a materiality assessment in accordance with the GRI (Global Reporting Initiative) Guidelines. We have analyzed international standard indicators such as GRI G4, ISO 26000, and DJSI, and have taken into consideration the benchmarking of global advanced companies in sustainability management and questionnaire surveys of stakeholders.

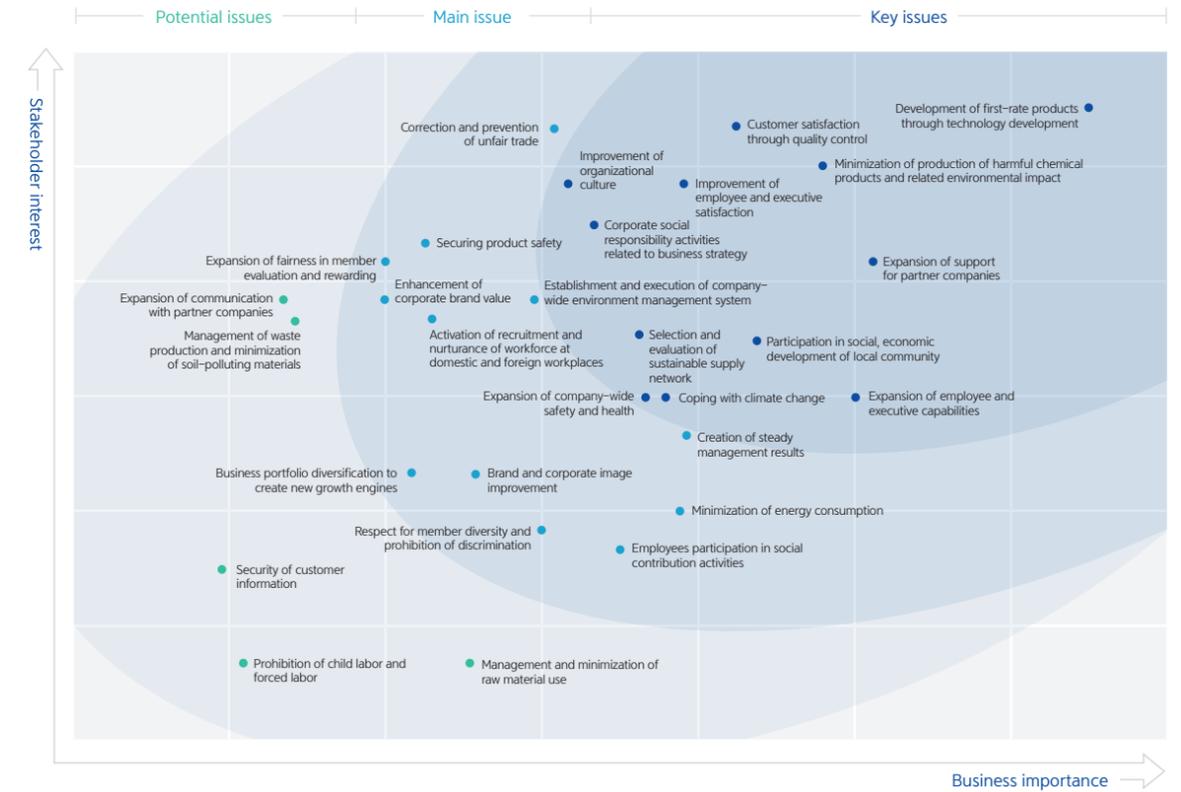
Evaluation process



Stakeholder survey

In order to listen to the voice of our customers directly, we have conducted a survey. The survey was done online in five areas, including the economy, macro economy, environment and shared growth for 176 internal and external stakeholders. The results were reflected in deciding the priority of the report order and materiality.

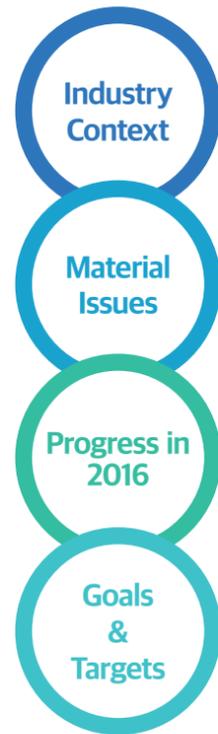
Key issues based on the results of importance evaluation



Stakeholders	Issues	GRI Aspects	Report Page
Customers	Customer satisfaction through quality control	Product service and labeling	22p
	Development of first-rate products through technology development	Management performance, energy	
	Employee and executive capacity building	Training and education	
Employees	Activities to enhance employee and executive satisfaction	Employment	36p
	Improvement of organizational culture	Diversity and equal opportunity	
Partner Companies	Expansion of support for partner companies	Human rights evaluation of suppliers	44p
	Selection and evaluation of sustainable supply network	Human rights evaluation of suppliers	
Local Communities	Social contribution activities related to business strategy	Indirect economic effects	54p
	Participation in economic and social development of local community		
Environmental Safety	Coping with climate change	Energy, Emission	62p
	Minimization of harmful chemical materials output and related environmental impacts	Water supply, waste water and waste materials	

Customers

Management Approach



Industry Context
Our top priority strategy is to develop first-class products to meet market and customer needs and to maximize customer satisfaction through quality control. Leading companies have organizations and processes optimized for R&D and quality control, and are committed to improving customer value.

Material Issues
An analysis of customer issues in 2016 revealed that two major issues are 'top-notch product development through technology' and 'customer satisfaction through quality management.' Activities and achievements for each issue, and future plans can be found in each part of the text.

Progress in 2016
The Hyosung R&DB Labs, The Power and Industrial Systems R&D Center, the Steel Wire Technical Center, the Electronic R&D Center are continuing to develop top-notch products that lead the domestic and overseas markets. At the same time, we are contributing to customer satisfaction by strengthening product quality and communication with customers.

Goals & Targets
Hyosung will continue to strengthen its R&D investment and human resources to focus on creating future growth engines. In addition, we will understand customer needs to identify quality improvement issues, and to maintain the level of Global No. 1 quality into the future. At the same time, we will do our best to increase the satisfaction of global customers and secure a broader market by strengthening salesperson capacity, establishing production and quality control systems, and securing and cultivating global talent.

Hyosung Sustainability Performance

The Number of Patent Applications
(Total Accumulation in 2016)



Investment in R&D



Acquisition of Quality and Safety Certifications



Development of Top-class Products through Technology



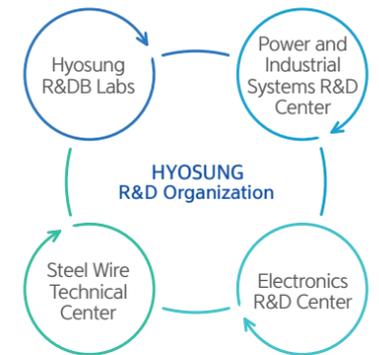
We are making strides in securing future growth engines based on new technologies that our customers need by closely monitoring industrial technology trends and the global market environment.

R&D Committee

The R&D Committee holds two regular meetings every year with the participation of the CEO, COO, heads of PGs and PUs, executives, and team leaders. The Committee discusses the R&D status of major items of each PG. The Committee also examines and reflects the diverse opinions of the marketing, business, development, and research departments by incorporating the top management's requirements into the R&D strategies and establishing a consistent and coherent R&D policy.

R&D Organization

Hyosung's research and development organization is divided into Hyosung R&DB Labs, Hyosung Power and Industrial Systems R&D Center, Steel Wire Technical Center, and the Electronics R&D Center. Through our differentiated technology development efforts, we are developing world-class products in various fields such as Aramid, POLYKETONE, STATCOM, and energy saving ESS.



R&D Achievements of Hyosung R&DB Labs:

Spandex, tire cords, airbag yarn for automobiles. 1st in global market share

1st in Korean market share Nylon yarn, polyester yarn, TAC optical film, and carbon fiber.

Developed next-generation high-tech materials such as carbon fiber, LED fluorescence, subscription type, immersion water treatment membrane, and world's first new material POLYKETONE development and mass production

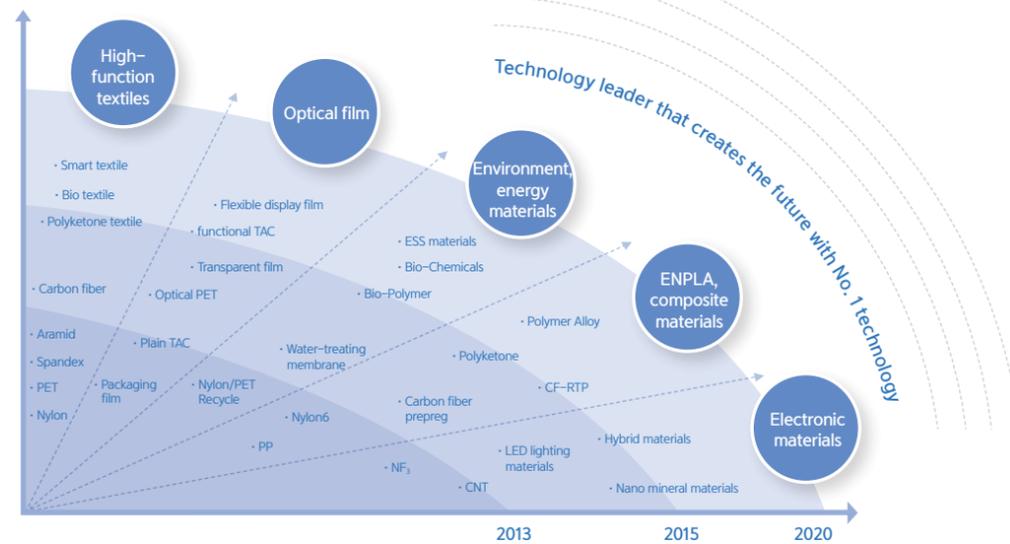
R&DB Labs

Hyosung R&DB Labs, founded in 1971, is the first private research institute in Korea to research textile, industrial materials, and chemical materials. Hyosung R&DB Labs aims to set its Vision 2020 as becoming a "technology leader that creates the future with first-class technology" and build up growth engines of the group based on five new product axes. The structure was reorganized into five research groups for each of 10 core technologies to accumulate the base technology. In order to maximize research efficiency in the future, we are actively promoting technology exchange meetings and permanent learning among related departments in the company, and are making every effort to recruit and nurture excellent researchers.

R&D Achievements of Hyosung R&DB Labs

Five Major Growth Engine Products

- ① High-function textiles
- ② Optical film
- ③ Environment, energy materials
- ④ ENPLA, composite materials
- ⑤ Electronic materials



Five R&D Groups

Hyosung R&D Labs consists of the Textile Research Group focusing on spinning and synthetic yarn technology, the Textile Research Group focusing on polymerization and catalyst technology, the Electronic Materials Research Group, the Film Research Group focusing on film and coating technology, the Functional Materials Research Group focusing on carbon fiber, synthetic materials, environment and energy materials technology. The five groups work to enhance overall synergy through the accumulation of basic technologies.

Internal Technology Exchange Meetings

In order to enhance R&D efficiency, we are promoting internal technology exchanges among related departments. We hold regular TFT meetings for the establishment and internalization of basic core technological base. We also hold brainstorming breakthrough meetings to resolve R&D problems and technology cross meetings for the convergence of technology cultures.

Power & Industrial Systems R&D Center

The Power & Industrial Systems R&D Center is developing core technologies and innovative products in the fields of heavy electric equipment, power electronics, power automation solutions, and energy systems, and securing reliability. To do this, we manage our research projects with a DR (Design Review) process and operate a working group to establish medium- and long-term R&D strategies for the major products of the power & industrial systems PG. In addition, in order to strengthen the expertise of R&D personnel, we not only conduct self-education through the GTE (Global Technology Expert) education system, but also actively promote technological cooperation activities with external parties.

Strengthening the Expertise of R&D Personnel

In order to strengthen the expertise of R&D personnel, we are carrying out technical exchanges and joint research with domestic and overseas specialized research institutes and leading universities. We also train our own researchers by conducting self-education for internal R&D personnel.

Hulab Administration



Achievements of the Power & Industrial Systems R&D Center

Development of ultra-high voltage transformer for the first time in Korea

Development of the world's first gas insulated switchgear

Development of Smart Grid technology - Development of static cables for the stabilization of the power grid

HULab (Hyosung University Lab)

We have cooperated with universities' laboratories to exchange technology and cooperate in core technology research and development. Joint research and commissioned development are carried out in key research areas and joint planning and participation in national tasks. In addition, we support the early electrification by operating an industry-academy program for talented people and give the opportunity to join the institute without any additional process after graduation. Through this, we are establishing a mutual win-win cooperation model between Hyosung and universities. In 2016, we operated a total of 32 HULabs.

Power and Industrial Systems R&D Center Global Technology Expert (GTE) Education System

We have defined core competencies tailored to the characteristics of power & industrial systems research and established the GTE education system accordingly. Based on the education system, we have opened basic training courses for each researcher so that basic knowledge about noise, vibration, heat and other peripheral technologies can be acquired. In addition, the GTE Intermediate / Advanced Course is also run as a self-initiative for products, technology learning, and problem solving that are required to carry out tasks. At the same time, we support strengthening competencies such as creative thinking and global language skills.

DR (Design Review) Process

This refers to a task-checking and decision-making system that determines the evaluation, change, suspension, continuation, etc. of each task from the beginning to completion of the research project. This helps prevent risks and outbreaks in advance.

Working Group

For each major Power & Industrial Systems PG product, related departments such as the product, planning, sales, development, and research teams gather to analyze trends related to the market and products, and establish short- and mid-term business and product strategy. Based on the established strategies, we derive management plans and R&D tasks for the next year.

Steel Wire Technical Center

Established in 1986 to develop production technology and product development of steel tire reinforcement materials, the Steel Wire Technical Center is growing as a specialized research institute for steel wire materials, such as parts for new and renewable energy and IT industry. In order to achieve 'Global Excellence,' we have established overseas technical centers in China and Vietnam and make continuous efforts to strengthen basic technologies and core competencies.

Key Achievements by R&D Centers

	Key R&D Achievements in 2016	
Hyosung R&D Labs	<ul style="list-style-type: none"> Development of high function POK materials <ul style="list-style-type: none"> - Development of POK engineering plastics and durable anti-shock chemical materials - Development of high function POK textiles Development of high function spandex <ul style="list-style-type: none"> - More elastic spandex/tighter spandex Development of eco-friendly water-treating membrane <ul style="list-style-type: none"> - Development of AMC high-pressure membrane 	<ul style="list-style-type: none"> Development of differentiated polyester <ul style="list-style-type: none"> - Development of PET White fiber Development of electronic lighting materials <ul style="list-style-type: none"> - Development of LED lighting materials - High function ceramic plate Development of new differentiated tire cords <ul style="list-style-type: none"> - Development of high-strength / high-modulus PET tire cord - Development of SHT/UHT-level NY66 tire cord - Development of heat-resisting adhesion technology
Power and Industrial Systems R&D Center	<ul style="list-style-type: none"> Development of high-efficiency electric generator <ul style="list-style-type: none"> - Development of low-pressure, high-power 315-400Fr. generators - Development of IE4-level LS-synRM 3,7kw 	<ul style="list-style-type: none"> Development of eco-friendly technology <ul style="list-style-type: none"> - Development of energy-independent micro grid system - Development of frequency-adjusting 2MW ES PCS - Development of 1 MW outdoor PV PCS (UL Certificate acquired, 98% CED efficiency)
Steel Wire Technical Center	<ul style="list-style-type: none"> Development of high-strength steel cord <ul style="list-style-type: none"> - Development of UT-level ultra-thin steel cord - Development of MT-level mono wire - Development of high-impact cord 	<ul style="list-style-type: none"> New renewable energy business <ul style="list-style-type: none"> - Development of structure saw wire

New Material Development, Localization of Technology



Ulsan polyketone plant foreground

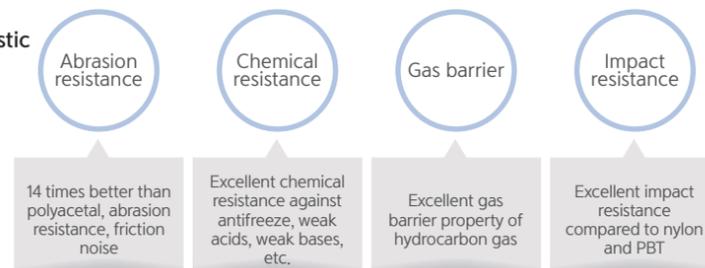
Polyketone (Brand : POKETONE™)

Hyosung succeeded in commercializing 'Polyketone,' the next generation plastic, in 2013 for the first time in the world. Polyketone is an engineering plastic that stands out as a new material to replace conventional engineering plastics because it has more than twice the strength of nylon, which is widely used in industrial materials, and can withstand abrasion. Polyketone not only has excellent abrasion resistance, chemical resistance, and impact resistance but also uses carbon monoxide, which is a pollutant, as a main ingredient, and is attracting attention as an eco-friendly new material. Currently, Hyosung manufactures and sells 50,000 tons of such products each year, and is actively exploring new markets.



POKETONE
HYOSUNG POLYKETONE

Characteristic



Applications



Carbon Fiber (Brand: TANSOME®)

Carbon fiber has been attracting attention as a key material for lightening products. Carbon fiber is widely used in aerospace, industrial and automotive applications as well as the sports and leisure sectors and is expected to grow more than 12% annually. Hyosung has succeeded in developing carbon fiber with its own technology for the first time in Korea. We will participate in global exhibitions, promote product excellence, and gradually expand our production capacity.



Carbon Fiber

Spandex (Brand: creora®)

Hyosung succeeded in developing spandex for the first time in Korea in 1992. As a result of continuously investing in technology development to provide customers with the best quality and service in the world, Hyosung's spandex brand creora® is currently solidifying its position as a global No. 1 brand with a global market share of over 30%. Based on Hyosung's proprietary production technology, we are developing a wide range of spandex products including creora® Color+, creora® Black and creora® STEAMSET+.

Spandex Brand creora® Representative Product Group



It has excellent power and heat resistance and can be dyed at high temperatures. It is mainly used in swimwear and sportswear.



It has a soft elasticity and gives a comfortable fit to clothing and is mainly used for socks and stockings.



It is mainly applied to diapers and boasts a unique technology in the personal hygiene market.



Compared to ordinary spandex, it can be set at low temperatures to prevent yarn from yellowing, and improve hand-feel of fabrics. We are also saving energy and reducing the use of fossil fuels to reduce costs and improve productivity.

* For more information on spandex products, please visit our website (<http://www.creora.co.kr/en/index.do>).

TAC (Tri-Acetyl Cellulose) Film



TAC Film production process

TAC film protects the polarizer, a key component of the display, and is used in LCD TVs and smartphones. It is an eco-friendly film material widely used in daily life. Hyosung succeeded in localizing TAC film technology, which had been dependent on existing Japanese material technology, and contributing to lowering dependence on overseas technology. In order to provide stable products and services to our customers in the continuously growing display market, we have added an additional film production plant at the Oksan plant.

Aramid Lightweight Bulletproof Helmet

Hyosung has been selected as a leading research institute in the civilian technology development project (development of 'helmet with improved bulletproof performance') by proposing a bulletproof helmet, made 100% from aramid which was originally made of polyethylene (PE). Aramid has high strength, high heat resistance, and excellent tensile strength and is used as an optimal bulletproof material. It will be lighter than conventional aramid helmet and will be used as the next generation lightweight bulletproof helmet for the Korean Army.

15MW Water Generator



15MW water generator

In 2016, we succeeded in localizing 15MW water-pump generators for the first time in Korea and completed verification. Based on our superior technology and delivery record, we are leading the replacement of aging domestic power generation facilities. At the same time, we are continuously expanding our business areas in the overseas hydroelectric market, such as small hydro power and heavy water power. By doing so, we contribute to prolonging the life span of hydroelectric power plants, and are making our competitiveness known to the outside world based on stable technology.

Develop Eco-Friendly Technology

ESS (Energy Storage System)

This is a device that saves power when power demand is low and improves power utilization efficiency with an energy storage device that uses power when needed. Hyosung is engaged in the consulting business for the maintenance, repair, and construction from the system supply in the ESS business and continues to expand the market based on accumulated business experience and product reliability. In addition, ESS experts and maintenance systems are in place to quickly respond to possible disability issues.

Solar Power Conditioning System

The Solar PCS is a device that converts the direct current of a solar cell that converts solar energy into electric energy into AC to connect with the power system and has the function to produce maximum power. It can also maximize the availability of solar energy in conjunction with energy storage devices. We are striving to maximize our customers' profits through high system efficiency, an optimal system operation control environment, component reliability, high performance, high reliability, high stability, and high quality products and services.



membrane



STATCOM



Certificate of green technology for low-carbon concrete

Water Treatment Membrane

The core technology of the water industry is shifting from chemical treatment to separation membranes. Hyosung has developed a water treatment membrane with excellent performance based on its long-accumulated polymer polymerization and processing technology and have tried to use in various water treatment fields including water purification, industrial water. In particular, Hyosung is the only company in Korea to have both a submerged hollow fiber membrane certification (2011) and a pressurized hollow fiber membrane module (2013). In recent years, it has successfully developed new materials, polyketone, and AMC materials.

STATCOM (STatic synchronous COMPensator)

STATCOM is a device that prevents electric power loss during power transmission and distribution and improves the stability of power transmission. This complements the disadvantages of renewable energy, where power production and supply are relatively unstable. Hyosung is the only company in Korea to have commercialized technologies for commercial use. Leveraging the advantages of voltage stability and maximizing transmission efficiency, we have won orders from domestic substations, the India Electric Power Authority, and Panama Power Transmission Agency. We are working to expand the market to Asia and the Americas in the future.

Low-Carbon Concrete

Low-carbon concrete reduces cement usage by approximately 40%, and is a technology using high performance chemical emulsifiers and stimulants. It has excellent chemical resistance, minimizes cracking due to drying shrinkage, and is recognized as a high-quality construction technology. In addition, CO₂ emissions are reduced when manufacturing concrete, which is recognized as an eco-friendly low-carbon green construction technology. Hyosung has applied low-carbon concrete technology to more than 10 sites since 2014 and plans to continue expanding it in the future.

Voltage Type HVDC (Ultra High Voltage DC Transmission)

HVDC is a technology that converts high-voltage AC power generated by a power plant into high-efficiency DC power. Because it has low power loss, it is advantageous for large capacity and long distance transmission, and it is emerging as the core technology of the next-generation power network. In particular, there are many similarities with the STATCOM operation technology, and it is expected that it will contribute greatly to securing national technological capability because it is possible to link technologies, increase the spread of renewable energy, and increase the power linkage among countries. Hyosung will be selected as a national project developer by the Ministry of Commerce, Industry and Energy from the end of 2012 and aims to complete the demonstration tests by the first half of 2017.

Microgrids

This is a technology that meets the demands of stable diffusion of new and renewable energy and customers' power quality by establishing a localized power network by linking distributed energy resources such as wind power and solar energy with energy storage devices. Hyosung has installed and operated a micro grid for energy independence in domestic households and highways. We are planning to develop hospitals, campuses, and military microgrid centers in North America based on our technological capabilities through demonstration operation.



Recycled yarn Regen, Mipan Regen

Recycled Polyester Yarn Regen

Hyosung has launched the 'Regen' recycled polyester yarn, an eco-friendly fiber material manufactured by recycling waste PET bottles. Regen, which utilizes the technology to extract and recycle the useful components of PET bottles to be discarded, has obtained the GRS certification of the eco-friendly certification body control Union and is recognized as an eco-friendly product.

Recycled Nylon Yarn Mipan Regen

'Mipan Regen' is a nylon-recycled yarn developed by applying eco-friendly technology to manufacture pulp and waste chips from spinning process. Unlike conventional recycled nylon, which is produced by mixing conventional nylon and recycled nylon, though it maintains the existing nylon quality, it is more environmentally friendly by recycling 100% process waste.

Eco-Friendly Dip Recipe (Adhesive Liquid)

In order to prepare for REACH (Registration Evaluation Authorization and of Chemicals), we developed an eco-friendly dip recipe, which eliminates harmful components contained in tire reinforcement products. For example, we eliminated. Formaldehyde, a harmful chemical that is still waived by REACH. Since the range of regulated chemical substances is expected to expand, we plan to prepare for future production. At the same time, we expect to be able to provide research and development solutions to customers in related industries based on product development know-how.

Lyocell Tire Cord

We developed lyocell tire cord products using NMMO (N-Methylmorpholine N-Oxide), an environmentally-friendly solvent. The use of sulfuric acid, which is highly toxic to produce conventional cellulosic fibers, is on the rise, but lyocell is experiencing a trend of increasing demand in the market due to its ability to produce various chemical pollutants due to the production of chemical fibers and to eliminate harmful substances. Hyosung is supplying lyocell products to customers for high quality premium tires for a long time.

Steel Cord for Cobalt Free Tire

Cobalt in synthetic rubber of existing tires can affect the growth of aquatic plants when they dissolve and flow into rivers while driving. In order to prevent this, we are developing related technology to exclude the cobalt component of synthetic rubber by precoating cobalt component in Hyosung's steel cord.



Hydrogen car charging system

Hydrogen Car Charging System

In 2008, we succeeded in the domestic development of a hydrogen car charging system for the first time in Korea and late supplied the system to Hyundai Motor's Namyang Research Center. As the government announces a roadmap for the spread of hydrogen cars and hydrogen-charging infrastructure by the end of 2015, we are also striving to secure technological competitiveness in the hydrogen car charging system business, the next generation of pollution-free vehicles.

Customer Satisfaction through Quality Control

Quality Control Management System



Establish Quality Management System

Perform Quality Improvement Activities

Spandex PU continues to develop quality improvement activities by identifying customer needs, reflecting them in production lines, and minimizing the occurrence of fundamental issues. We are constantly improving the ups and downs of quality, collecting customer suggestions, and reflecting them in the improvement process. In addition, we monitor the production conditions and operation status of domestic and overseas business sites to establish the unification of technologies, and regularly perform audits for overseas business sites to continually improve processes.

Process Improvement Management

POK Business Division is constantly improving its quality management system by thoroughly reviewing all production processes. In order to meet the demands of the market and customers, we guarantee the conformity and efficiency of the quality and ensure the effective execution and maintenance of the system by appropriately providing human and material resources. At the same time, we are pursuing quality that can improve customer satisfaction. We listen to our customers' opinions, understand them, and consider them as our highest priority. We continuously minimize the waste and defect factors, and all of our employees continuously improve their processes in the company's processes and gain the trust of the market and customers. A series of courses are used as a measure of company evaluation through customer satisfaction surveys.

Optimization of Facility Operation

TPA PU optimizes plant operating conditions that affect product quality. We also regularly inspect and replace aging equipment to prevent process accidents and produce products of stable quality. At the same time, we adhere to quality inspection procedures to continuously manage quality data and share quality related issues on a regular basis among related departments. In addition, through regular exchanges with customers, we are responding promptly to quality issues and customer needs. In the event of an abnormality in product quality, we will notify customers without delay and minimize damage to customers.

Establishment and Management of Global Plant Quality Standard

We operate manufacturing bases for tire reinforcement materials not only in Korea (Eonyang/Ulsan), but in foreign countries (China/Vietnam/US/Luxembourg). The global quality control team ensures the production of products of same quality all over the world. Quality Assurance Team manages production technology and standards for each line of production. It also develops guidelines for equipment, parts and components and the application of new technologies, and distributes these guidelines to production sites globally. Further, the team hosts technological exchange programs among plants so that all sites are able to manufacture their respective products with top-notch technology.

Quality Guarantee and Securing Quality Certifications

We operate a quality management system tailored to PU-specific products and customer characteristics. We have strict product quality control and have secured product reliability and high customer satisfaction by acquiring internal and external certifications for product quality.

Quality Assurance Regulations

Power & Industrial Systems PG stipulates strict quality assurance for all processes from product planning to sales.

Writing Quality Assurance Manual	Complying with specifications, standard drawings, standards, etc. and fulfilling quality assurance responsibilities for products
Product production process (order, development, shipment, etc.)	Pre-elimination of disability factors in terms of quality assurance
Quality Assurance Audit Activities	Identifying quality systems, specifications, contract requirements and their conformity with quality activities, identifying nonconformities, implementing corrective and preventive measures

* Expected to be applied to partner companies in the future

Securing Quality Certifications

Interior PU has obtained ISO9001 and TS16949 certification through its own quality management system, and thoroughly maintains product quality. In particular, in the field of tile carpets, which requires strict quality conditions, the 'Swan tile carpet' has obtained eco-friendly mark certification and KS Certification, and strives to provide high quality products continuously. POK Business Division maintains product quality consistently throughout the entire process, from polyketone orders to production and organizational management service activities. Film PU has been recognized for its excellent quality and stable supply of products through constant efforts to supply eco-friendly and harmless products.

NIJ (National Institute of Justice) Standard

NIJ Standards is a standard set by the U.S. Department of Justice Research Center for anti-bullet capacity which is currently used as a global standard of bullet-proof. Araid Business Division has received certification for 12 models since 2015 by proving its competitiveness, and quality and will receive additional certifications for five new models in 2017.



Swan Tile Carpet International Certificate (ISO9001, Environmental Cover Certificate)



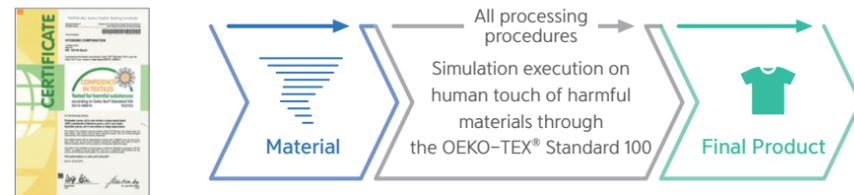
ISO9001, ISO/TS16949 Certificate

Securing the Product Lifecycle

We ensure product safety in all processes ranging from ordering from product to after-sales management. We will ensure the safety of our customers and strengthen their trust through our own verification system.

OEKO-TEX® STANDARD100

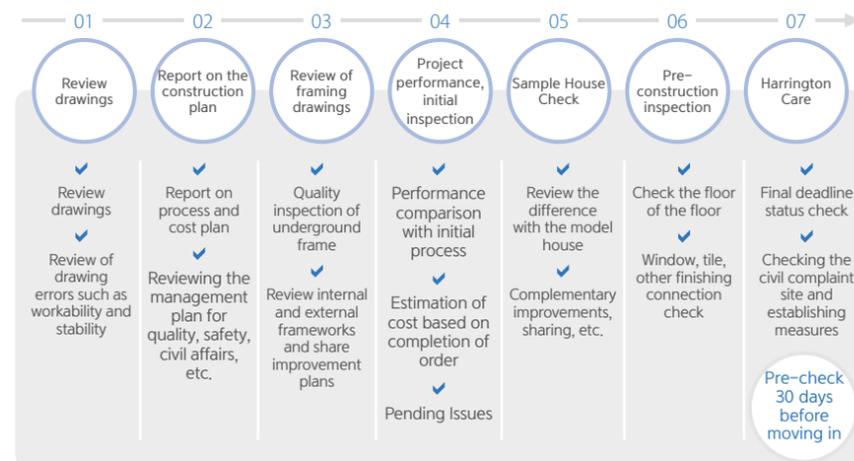
The Spandex PU and Nylon Polyester Yarn PU perform independent safety testing at all stages of processing from the fiber raw materials to the final product of the creora family through the OEKO-TEX® STANDARD 100 certified system. Considering all possible situations where harmful substances can contact the human body, we conduct simulation tests for about 100 steps and renew our certification every year to ensure product safety.



OEKO-TEX® STANDARD 100 Certification

7-Step Quality Check

The construction PU carries out quality inspections in seven stages from the drawing review to the confirmation before the tenant check. We participate in all relevant departments to check plans and performances, and make improvements to reduce defects. This will help reduce unnecessary extra costs and realize customer satisfaction.

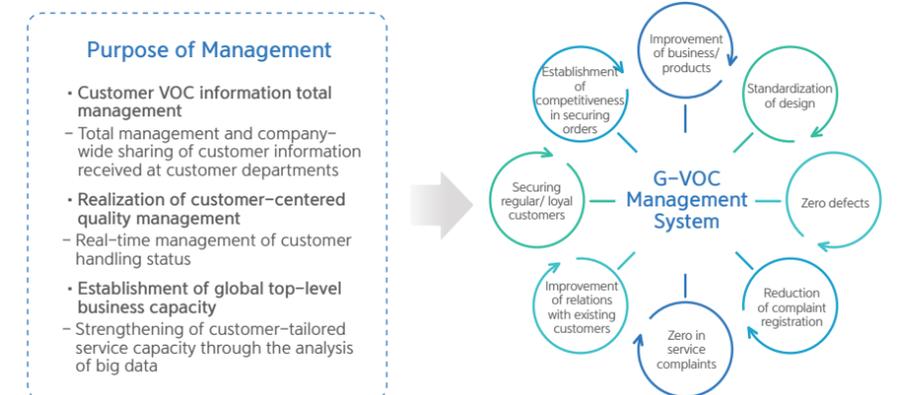


Customer Communication

We are expanding our interactive communication channels to actively identify customer needs and strengthen our products and services. We strive to maximize customer satisfaction through close communication with our customers.

G-VOC (Global Voice Of Customer) Management System

The Power & Industrial Systems PG has established the Global Voice of Customer (G-VOC) and Portal system to integrate and manage customer VOC information and realize customer-based quality management. The G-VOC management system is to reflect feedback from customers and prevent the repetition of the same problems, by registering customer information received at customer-handling departments, ranging from business, design, and test to installation. Throughout this system, we can openly monitor our handling of customer feedback and accurately reflect customer demands by way of big data.





Participated in Intertextile Shanghai Apparel Fabrics and Interfilere Shanghai



Showcased creora® Fresh (participated in Lyon Mode City and Interfilere)

Participation in Domestic and Foreign Exhibitions with Customers

The Spandex PU and Nylon Polyester Yarn PU are participating in domestic and foreign exhibitions every year with our customers and jointly organizing exhibition booths. Through this, we are helping our customers expand their new markets and provide them with opportunities to understand market needs and trends. In addition, Hyosung is strengthening its position by promoting the superiority of its products to prospective customers. Specifically, the Spandex PU participated with customers in 'Preview in Daegu' and 'Intertextile' in 2016 and introduced 'creora®' in 'Lyon mode city & Interfilere' Fresh 'and other premium fiber materials.

Advanced Interiors for Automobiles

Interior PU strives to provide customized solutions to customers by constantly communicating with them. We have developed and supplied high quality products with a smooth surface feel and luxurious appearance by benchmarking advanced automobile production companies according to the advanced needs of automobile interiors. At the same time, we have minimized the noise of automobiles through development of products with suction and sound insulation functions. We are introducing a variety of products to the market in line with trends such as weight reduction and cost reduction.

creora Marketing

As the world's No. 1 spandex brand, creora® is expanding contacts with customers and enhancing customer marketing, as well as local marketing activities through overseas subsidiaries, as well as creora workshops and creora fabric libraries. At the same time, we operate a global technical service team to provide technical support during customer development and use.

creora Workshops

We visit major global clients in China, Hong Kong, and Taiwan among others to provide comprehensive solutions from yarn supply to new product launch ideas. We are introducing trends that are tailored to the characteristics of our customers, proposing the development of new fabrics using creora® to improve brand loyalty, expanding relationships with customers, and pursuing win-win management with them.



creora Fabric Library

We are operating 'creora Fabric Library' in major markets such as Seoul, Milano and Hong Kong. It introduces creora® related products and introduces fabrics developed by Hyosung and its customers to famous brands and distributors around the world.



Providing customized service

Tire & Industrial Reinforcements PU provides specially customized solutions to become a partner that supports customers to grow rather than a more product supplier. We occasionally collect customer needs through a variety of channels including regular customer visits and specialized VOC(Voice of Customer) questionnaires, and fully use the information to improve our delivery, technology, quality, CSR, and many others.

In addition, we conduct seminars continuously utilizing in-house and external tire experts and consultants to enhance our technology and abilities so that we can not only support our customers' current problem-solving, but also carry forward co-development of next generation production through preemptive and customized correspondence to the customers' future needs.

Identify customer needs

- Regular customer visits
- VOC Listening
- Establish sales offices in the US, Japan, Europe and China, and establish a locally optimized sales strategy

In-depth understanding of customers' products

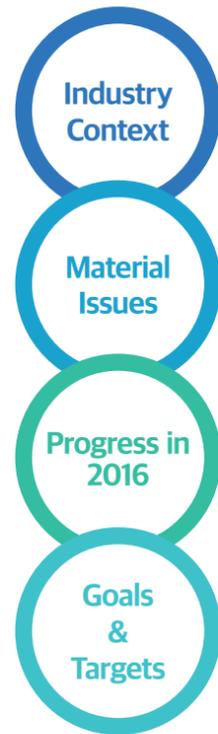
- Enhance our abilities through seminar using in-house and external tire experts and consultants
- Resolve problems related to the customers' production but also carry forward co-development of next generation products

Accept product feedback

- Request product feedback for key customers
- Identify improvements such as delivery, technology, quality, and CSR.

Employees

Management Approach



Hyosung deeply sympathizes with the perception that the competence of its employees is the company's competence. In particular, as globalization and informationization accelerate, knowledge work is becoming increasingly sophisticated, and global companies recognize the importance of talent management and work to build a solid system.

As a result of analyzing key issues related to employees, we have learned that there is a high level of interest in "strengthening employee capacity," "improving organizational culture," and "enhancing employee satisfaction" for internal and external stakeholders. The activities and achievements of each major issue and future plans can be found in this report.

In order to foster employees with global expertise, we have established a systematic talent training system. In particular, we strengthened Global Expert training and PU and job-specific training. In addition, based on teamwork enhancement and family-friendly management through in-house communication, we are building a vibrant corporate culture and a good company to work for.

We will strengthen programs that reflect PU and job characteristics in the company-wide education system, and enhance the effectiveness and efficiency of manpower management by encouraging self-discussion and participation by employees. At the same time, we will create an organization that cares about the quality of life of our employees who work happily.

Hyosung Sustainable Management Achievements in 2016

New recruitment



497 persons

Ratio of participation in human rights violation prevention education



100%

Ratio of returns from parental leave (for women)



100%

Capacity Building for Employees



Hyosung is strengthening its educational system to cultivate top-level human resources based on the recognition that individual employees' competencies are Hyosung's competitiveness.

Education System

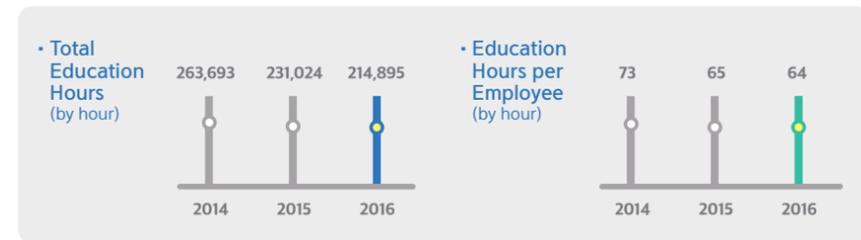
Division	Sharing of Management Philosophy	Promotion of Leaders	Work Capacity Building		Organizational Vitalization
			Global Expert	Job Specialist	
General Manager	SVP New Executive	Executive Diagnosis / Education / Coaching	Global Multiculturalism Education	Academic Training System	Overseas Subsidiary GWP
Assistant General Manager	SVP New General Manager	GWC (Executive Candidates)			
Assistant General Manager	SVP New Deputy General Manager	Leader Training / Strategic Thinking / Performance Management	Global Multiculturalism Education	Academic Training System	Overseas Subsidiary GWP
Manager	SVP New Manager	Hyosung eMBA			
Assistant Manager	SVP New Assistant Manager	New Team Leaders	Global Multiculturalism Education	Academic Training System	Overseas Subsidiary GWP
Level-3 Staff	SVP Level 3, 4 Promoted Employee	Education for General Managers and Assistant General Managers			
Level-4-5 Staff			Global Multiculturalism Education	Academic Training System	Overseas Subsidiary GWP
New Recruits	SVP Introductory Mentoring for the Newly Hired				

Direction of Education

We educate our employees in accordance with four educational directions: sharing business philosophy, fostering leaders, revitalizing the organization, and strengthening business capacity. Through this, Hyosung is creating a hard-working corporate culture and synergies with a sense of clear goals.

Share Management Philosophy	Nurturing Leaders	Strengthen Business Capabilities		Organizational Activation
		Global Experts	Job Experts	
Based on the company's management philosophy/aligning employees to one direction	Nurturing of leaders who can effectively train and evaluate subjects	Enhancing Global Expertise Activation		Build organizational culture to facilitate communication and collaboration

Education Status Table



* Excluding new entry, career introductory education, online education, foreign language education, etc.
* Reference for estimating the standard number: Based on the number of employees at the 1-3 levels at Hyosung as of the end of December; excluding those who have entered with past career, overseas dispatchers, and special-job-holders

Share Management Philosophy



Education of SVP Promoted Staff

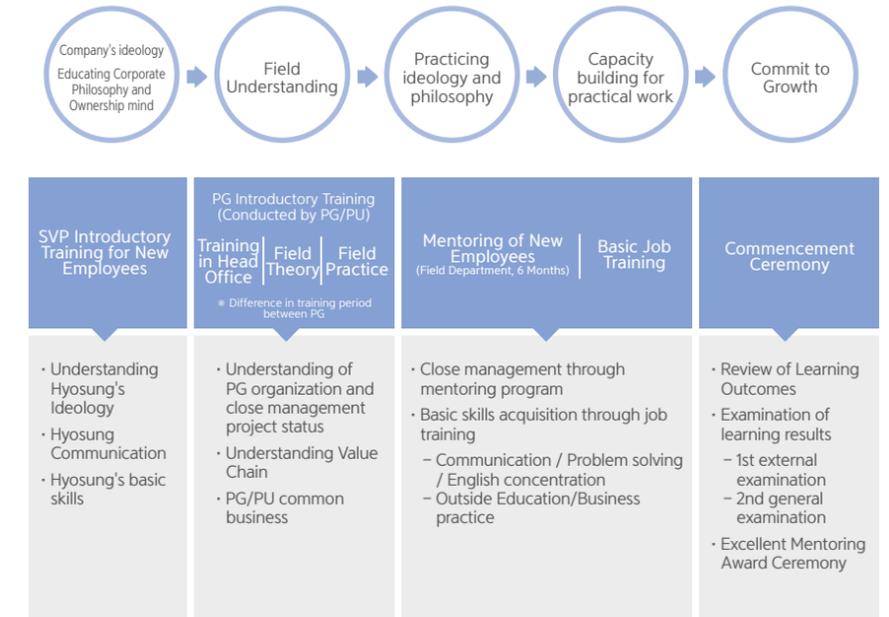
In order to have employees clearly understand the management philosophy and policies of employees and use those as internal standards, we carry out management level action training to disseminate the lessons stressed by the management and SVP (Shared Value Program) training.

Executive	Detailed Training Program
Promotion of Key Points Stressed by Management	<ul style="list-style-type: none"> Explanation of education materials about management philosophy and execution guidelines (used in permanent PU class) Promotion of management cases and recommended books emphasized by management
Education to Execute Management Philosophy	<ul style="list-style-type: none"> Promotion of management policy education by PU Repeated education in various classes at training centers
SVP Training	<ul style="list-style-type: none"> Educate promoters and new employees to share values such as the Hyosung Way and management policies and basic guidelines for organizational management.

SVP Newly Promoted Personnel Education

New recruits receive an one-year training program to adjust to the organization. They learn Hyosung's ideals and philosophy through on-site experiences and build work capacity through basic work classes.

SVP New Employee Annual Education Roadmap



Leader Education



We train managers and leaders through leadership training education. We train leaders who are department heads and deputy department heads, the candidates for the team leader and those who are in charge of the team by educating strategic thinking, business management, and human management methods. In the succeeding new team leader education, we educate them of the roles and responsibilities of the team leader, and how to apply a balanced approach between work management and human management so that they lead to work performance. Executive candidates are trained in G.M.C. (Global Management Course), which includes business strategy, accounting, marketing, and production management skills. Through the new executive program that follows, we recognize the roles and responsibilities of executives and lay the foundations for becoming a truly global company. In 2017, we will provide motivation to continuously strengthen our competencies by conducting competency diagnosis and feedback in the new SVP training, new team leader training, and new executive education.

Strengthen Business Capabilities



We are providing job competency training so that our employees can have global-level expertise in their fields of responsibility. We are strengthening and nurturing the expertise required for actual work performance through job training and tailored training for each business unit.

Improving Organizational Culture

Hyosung strives to build a culture where employees can work effectively. We will create a sound and advanced organization by promoting communication among employees, improving business processes, and implementing family-friendly management.

All employees are working hard to establish a culture that works synergistically with a sense of goal. As part of that, we held the "GWP Proclamation Ceremony" in 2013 and announced the importance of GWP activities throughout the company. We conduct a Trust Index survey every year. Based on this, we are conducting improvement activities by operating GWP agents.

GWP (Great Place to Work)

* Change Drivers
Promote activities that emphasize the management's emphasis on PU and business sites, and change the organizational culture.



Company Culture Vitalization

We create communication and collaboration within the organization to create synergy and build a good working culture. Each year, we conduct an opinion survey on all employees to promote the organizational culture, not only sharing organizational issues within the company, but also actively sharing the proposed improvements through in-house bulletin boards. In addition, we are promoting the organizational culture by operating a team organization activation program and nurturing Change Drivers.

Work and Family Support

We opened childcare centers at headquarters, Changwon, and Ulsan factories in order to reduce the burden of childcare for employees and to support work-family balance. The daycare center is open from 7:30 am to 8:00 pm, creating a friendly and safe daycare environment. At the same time, it supports a variety of programs such as 'Reduction of working hours for childcare period,' which can adjust working hours for employees with children under 6 years of age, and 'Take care of the family,' which sends snacks and video letters to the school.

In recognition of these activities, we have obtained family-friendly company certification in the "2015 Family-Friendly Company, Institution Certification Ceremony."

Economic Assistance

- Severance pension system: Introduced to guarantee after-retirement income
- Loan for housing
- Short-term, low-interest loans
- Support for children's tuitions
- Support for various family events

Support for Harmony between Work and Family

- Maternal Protection : pre and post-birth leaves (including spouses), reduced work hours for child rearing
- Other holiday systems
- Support for summer vacation and vacation allowances
- Support for leisure: Support for condominium reservation by region

Support for a Healthy Workplace

- Health support: Regular medical checkup for employees and executives
- Joining of group injury insurance
- Support of hobby clubs
- Company sports events

Family-Friendly System

- Workplace Daycare Center
- Schedule of working hours for childcare period
- Take care of the family
- Cheerful sporting events with family



Sports day with family



Certification of Best Family Friendly Management

Objects	Curriculum	Educational Purpose
Company-wide human resources development center education	Job Training: (Professional Job/ Common Job/ Field Job) Professional Training ¹⁾	<ul style="list-style-type: none"> Professional job training : business / production / research / management professional staff education Common job training : Problem solving competency, communication competency, improvement of profit-taking mind Field job training : sharing practical experience and know-how
	Sales Capability Improvement Training	<ul style="list-style-type: none"> Train and support education Sales strategy and implementation to Sales Managers
	Customized training by PU and site	<ul style="list-style-type: none"> Competency improvement training for solving pending issues
	Expatriate Education: Global Leader Training	<ul style="list-style-type: none"> Pre-training for overseas dispatched employees regarding the system of host countries.
	On-the-job training	<ul style="list-style-type: none"> Nurturing in-house instructors with expertise and experience in the field Provide learning opportunities such as online / external education/foreign language support system
PG/PU led education ²⁾	Academic Training System	<ul style="list-style-type: none"> Support for Degree acquisition such as R&D and MBA
	POKETONE School, (POK Business Division)	<ul style="list-style-type: none"> In order to improve the sales ability of employees, we spread basic technologies and use cases to domestic and overseas executives and representatives
	Training Trade Expert (Trading PG)	<ul style="list-style-type: none"> In Trade PG, training for new employees and experienced employees is carried out in the field of trade training and job competency enhancement We invite the production, research and marketing staff of steel and chemical products to enhance understanding of products
	Special training (Tire & Industrial Reinforcements PU)	<ul style="list-style-type: none"> We provide specialized in-depth training to high performers of our global sites for 2~6 months.
	Design School (Power & Industrial Systems PG)	<ul style="list-style-type: none"> Education of design-related staff about value chains and design capacity for Power & industrial systems PG's major items (high-pressure electric transformers, circuit breakers, generators, etc.) Creation of customer satisfaction and VIU through knowledge enhancement of Spandex PU executives and employees Exchange of information on quality issues and competitions among Global TSCs.
creora school (Spandex PU)		

1) Task Exploration and PU Permanent Education System, etc.

2) creora school (Spandex PU), Design School (Power & Industrial Systems PG) and other diverse PG/PU-led education

PU Everyday Learning System

Each division selects, learns, and shares tasks that are tailored to the characteristics and circumstances of the business. Each topic is structured so that it can be directly applied to work in the workplace, and employees conduct in-depth study on a specific topic during a week. It is used as an education to improve the working capacity of the members.

Task Inquiry System

In each semester, the team leader of each team sets up the knowledge, information, and skills necessary for the team work as a learning task. Team members are improving their ability to perform their tasks by taking the lead on the assignments they are given, and perform the results presentation in connection with PU regular learning. The results of the learning are registered in the education management system, allowing other employees in the company to read it, contributing to strengthening the learning capacity of the entire company.

People Innovation

Based on the performance-based compensation system, we are carrying out the 'People Innovation' project to innovate various systems and corporate culture to create an organization with the highest level of competence. Hyosung has been awarding prizes for each PG and PU to the employees who have made efforts to grow and develop Hyosung and has been awarded the 'Proud Hyosung Award' on a quarterly and annual basis. The winners will be selected for marketing, technology, research and support, and rewards and personnel benefits will be awarded.

In-House Communication

We actively communicate with our employees through dialogue with management, junior board, communicator, and HR Counseling Center. Through this, we communicate the suggestions related to our work, improve it, understand each other's grievances, and utilize it as a place to communicate positively.

Conversation with Management

The CEO holds occasions to directly explain and share the company's major achievements, issues, and management policies with executives and team leaders. At the same time, we are continuing to provide a lively question-and-answer session between top management and employees to strengthen company-wide communication and strengthen management transparency.



Junior Board

This is a company-wide communication channel between the employees. Junior-level employees communicate ideas for improvement and organizational innovation to senior-level employees and implement them in the company.

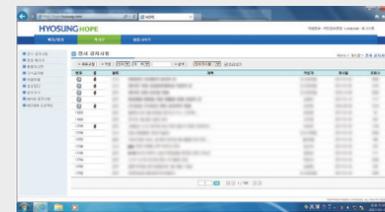
Communicator and Public Relations Committee



We run a communicator and a public relations committee to promote communication among departments including PGs and PUs. One or more employees are selected for each PU and each workplace domestic or overseas. After being educated about the importance and role of organizational communication, they are in charge of promoting the issues of each work place in-house.

Other communication channels

Bulletin Boards and Buzzwords



We run a bulletin board and a buzzword for employees to share their business information and business site news and exchange opinions on the company intranet. Specifically, the communicators of each business place posted the status of their workplaces together with their photographs, so that employees can freely share their news.

MY FRIEND HYOSUNG (Hyosung Group Blog)



The Hyosung Group has opened a blog to provide various news and social contribution activities. For more information, please visit our website (<http://blog.hyosung.com/>).

Company Newsletter



The Company Newsletter, which was launched in 1980, is being distributed to more than 100 domestic and overseas business sites, and effectively communicates management messages on the theme of new growth engines, global competitiveness, and social responsibility. In particular, in 2017, we reinforced readability by significantly improving the layout and design by gathering opinions from employees.

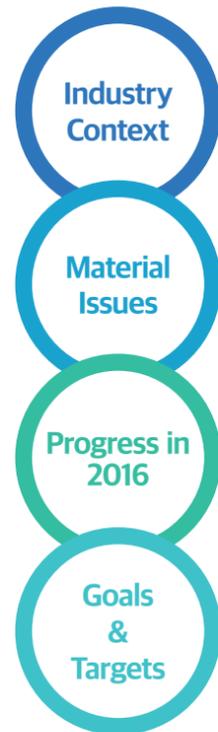
Hyosung Broadcasting System

HBS is based on the company's intranet, and since then it has been broadcasting regular news twice a week to inform Hyosung people around the world. It is composed of a variety of programs, including on-the-job training and 'Thank you Hyosung-in' organizational culture vitalization program and business message delivery, and is being used as a communication channel to lead the in-house communication culture of Hyosung. In particular, it improves the communication speed of in-house broadcasting, enabling the top executives and employees to communicate in real time, and plays a central role in driving communication culture within the company.



Partners

Management Approach



From the procurement of raw materials and equipment to the management of suppliers, the importance of systematic supply chain management is increasingly emphasized as the value chain components of enterprises become increasingly complex. Therefore we are upgrading the level of the company's supply chain by providing support for strengthening the competencies of our suppliers and proactively managing the risk factors of CSR.

By investigating major issues related to our partners in 2016, we were able to confirm the high level of interest in "stopping and preventing unfair trade," "selecting and evaluating sustainable supply chains," and "expanding support activities for suppliers." Activities, achievements, and future plans for each issue can be found in each part of the report.

Hyosung operates a transparent trading process to establish a fair and transparent trading culture. At the same time, we are proactively managing CSR risks in our supply chain through CSR evaluations by our partners. In addition, in order to realize shared growth with partner companies, we operate various support systems for partner companies, and we are seeking new business opportunities through collaboration with venture companies and SMEs.

We will contribute to the sound foundation of domestic economy based on transparent and reasonable support for shared growth and investment. We will strengthen partnership CSR risk assessments to establish a solid foundation in management, production and quality, and expand shared growth programs to create partnerships that grow together substantially.

2016 Hyosung Sustainability Performance

Number of new shared growth partners



Cash payment percentage for companies with shared growth agreement



Awarded the contract of industrial innovation movement



Shared Growth Strategy



We are building a virtuous cyclical shared growth ecosystem with the common goal of 'sustainable global leader.' Based on the recognition that the strengthening of the competitiveness of our partners is the future of Hyosung, we will promote mutual communication and create close cooperation.



Supplier Management System

Hyosung operates a shared growth promotion team, which is a dedicated organization for shared growth. We operate three dedicated departments, which manage PGs, and purchasing teams, according to business and purchasing characteristics. In addition, Hyosung R&DB Labs and Power & Industrial Systems R&D Center participate together to promote shared growth such as joint research.



Fair Trade Order Establishment

In order to create a fair trade culture with our suppliers, we have introduced four practical actions recommended by the Korean Fair Trade Commission. In addition, we announce response guidelines for unfair trade practices, such as limiting or suspending unilateral transactions for partner companies, thereby laying the foundation for a fair partnership.

Operation of the Fair Trade Compliance Program

In 2006, we introduced the Fair Trade Compliance Program to establish a fair trade culture based on transparent and legitimate procedures. We are operating the Fair Trade Compliance Program Operation Regulations, and we are pursuing activities and programs centering on the CP (Compliance Program) TFT as a direct organization under the COO Vice Chairman.

Fair Trade Training

We conducted training through case studies on the topics of subcontracting law and contract violations for departments such as the purchasing department, outsourcing management team, and shared growth team, that have a direct stake in fair trade and are also at high risk of being involved in fair trade incidents. In addition, we provided information on the procedures and standards to the related laws by conducting education related to fair trade including the Fair Trade Act and Agency Law for sales departments.

Post-Transaction Review

After the end of the transaction from 2016, we conduct follow-up audits to monitor whether violations of laws or unfair practices occur. In the event of a violation, we will promptly correct the issue and reflect it in future transactions, thereby continuing to improve our monitoring and management to improve the fair trade culture.

Fair Partner Selection

Hyosung is introducing fair and transparent standards in selecting suppliers. We clearly announce the standards and recommendation criteria for participating in the bid on the shared growth website. In addition, Hyosung's e-procurement system allows you to freely apply for registration as a supplier.

Hyosung Partner Selection Process

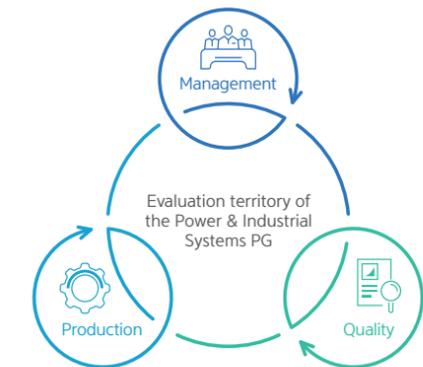


Construction PU Supplier Selection Process*

* Construction PU operates separate process according to industrial characteristics

Partner CSR Risk Management

Hyosung conducts registration screening for all new suppliers before they are qualified to participate in bidding for supply chain risk management. The registration examination of the Power & Industrial Systems PG includes evaluation items on CSR risk areas such as management, human rights, environment, safety, health, finance, etc. as the details of management area. Suppliers that do not meet the required criteria undergo rigorous supply chain risk assessment, such as exclusion from the company pool. Currently, only the Power & Industrial Systems PG applies this, but we plan to expand it to the corporate level.



Key CSR Evaluation Items of the Power & Industrial Systems PG

Category	Evaluation Items
Business management	Average years of service, turnover rate, compliance with social responsibility, etc
Human rights	Gender discrimination / Child abuse / Examples of unfair treatment, employee working hours, etc
Environment	Prevention facilities for environmental pollution emission facilities, waste management and treatment methods, etc
Safety / Health	Frequency of safety accidents and implementation of safety education
Education and organization	Regular employee training, research institute and design organization operation etc
Workplace environment	Plant arrangement, posting of safety rules, wearing work clothes and safety gear, etc

Excellent Partners CSR Monitoring

After selecting a trading company, we conduct on-site audits and real-time monitoring to confirm actual CSR performance for excellent partners. Hyosung requires consent for monitoring of safety and labor when conducting excellent partnership agreements, and companies that do not meet the standards are excluded from excellent partnerships. If a safety accident occurs during the business after the contract is concluded, a deduction is given to the evaluation of the company. Especially in the field of labor, the Power & Industrial Systems PG manages the payment status and the current rate of payment to the second supplier. The Construction PG monitors the implementation of wage payment by partner companies.

Partner Evaluation System

Construction PG conducts yearly evaluation for companies participating in the field construction for more than one month. Major evaluation items include quality, construction and general management as well as environmental, safety and quality evaluation.

Field Inspection

When new suppliers are found, they undergo procedures to confirm the suitability of the supply through on-site inspection. Chemical PG assesses not only the quality of the on-site inspection, but also the overall level and suitability of the supplier, including safety management of site staff, facility management and raw material sourcing. The rating is given through the evaluation, and when it is judged that it is nonconformity, the transaction is stopped. In 2016, we conducted joint site inspections of planning, quality, and purchasing departments for two business sites to identify new Chinese companies, and both companies have been approved for supply. We shared the results of the audit and requested remedial measures for weaknesses.

Partner Communication Channel

We are establishing a place for interactive communication and information sharing through communication channels with our partners. Suppliers propose to Hyosung on their online and offline channels and report violations of regulations at the time of transaction.



Website for Shared Growth for Partners
(<http://www.hyosung.co.kr/kr/winwin/index.do>)



Conference for the Partners of the
Construction PG

Category	Content
Hotline	We receive complaints and violation reports from partner companies through dedicated consultation telephone and e-mail. At the same time, Hyosung's inquiry and suggestions for the shared growth program are available and are being used as a two-way communication channel with partner companies
Partner Consultative Meeting	The Construction and Power & Industrial Systems PG invite representatives from partner companies every year during the first half and the second half of the year to hold a forum for shared growth partners. We share the results of the year through a round-table conference and have time to discuss the prospects of the next year and market conditions.
Dispute Arbitration Committee	When a dispute arises in the transaction with Hyosung, we have established Dispute Arbitration Committee to promptly and fairly adjust the dispute. The results of the deliberations are reported directly to the management to prevent the occurrence of the same dispute in advance.

Compensation for Outstanding Suppliers

We will make a real win-win relationship with our partners based on the value of expanding our business with great virtue. As a result, we have been awarding the "Proud Hyosung-in Prize of the Year (for partners)" for excellent partner companies while providing performance sharing and various financial support. Since 2013, Hyosung has been rewarding partners for contributing to manufacturing technology, innovation and cost reduction through technology upgrades and innovations every year-end.

Shared Growth Program

✓ Cash Payments for Shared Growth Partner Firms

We pay the cost of delivered goods in cash on a fixed date and increase the number of payments, contributing to the expansion of liquidity of SMEs.

✓ Network Loan

Based on the previous year's delivery results, we are providing production funds to partner companies at interest rates lower than market interest rates.



99.87%
Cash Payment Percentage for Companies with Shared Growth Agreement

✓ Financial Support for Overseas Joint Ventures

We have entered into business agreements with the Korea Export-Import Bank and are providing financial support for preferential interest rates to small and medium-sized enterprises with overseas subsidiaries and cooperating SMEs supplying goods to Hyosung export projects.

✓ Shared Growth Investment Resources

We are supporting areas such as research and development, productivity improvement, green house gas reduction, and energy conservation by donating fund to large and small enterprise cooperation foundation.

✓ Support for International Exhibition Participation

We cooperate with Textile PG companies and booths of international exhibitions (Daegu International Textile Expo, Outdoor Retailer Show, etc.) to support expansion of new suppliers.

✓ Support for Overseas Market expansion (Fabric Library)

The Creora Fabric Library is operated in five locations around the world, including Korea, Hong Kong, New York and Shanghai, to advertise and promote fabrics developed by partner companies to world-famous brands.



Power & Industrial Systems PG Overseas Market Expansion Status

✓ Advancement with Overseas Construction

We have entered into overseas construction projects in 16 countries including Italy, Brazil and Qatar to secure overseas construction experience and provide opportunities for overseas sales growth and global competitiveness. Ultimately, we are helping our partners expand their business overseas.

✓ Joint R&D and Joint Patent Applications

Through the Hyosung R&DB Labs, and Power & Industrial Systems R&D Center, we are collaborating with the research and development organization of Hyosung. In addition, we have expanded our joint R&D with partners with superior technology, and are supporting patent applications and filing joint patents.

✓ Technical Information Deposit

The core technology information of suppliers such as information, technology, and management information related to intellectual property rights is deposited to the SME Cooperation Foundation to demonstrate the possession of technology in the event of a dispute. This prevents technological hijacking and strengthens the backup function of data.

✓ Hyosung's Technology Development Organization Participating in Joint Research

- Hyosung R&D Labs
- Power & Industrial Systems R&D Center
- Steel Wire Technical Center



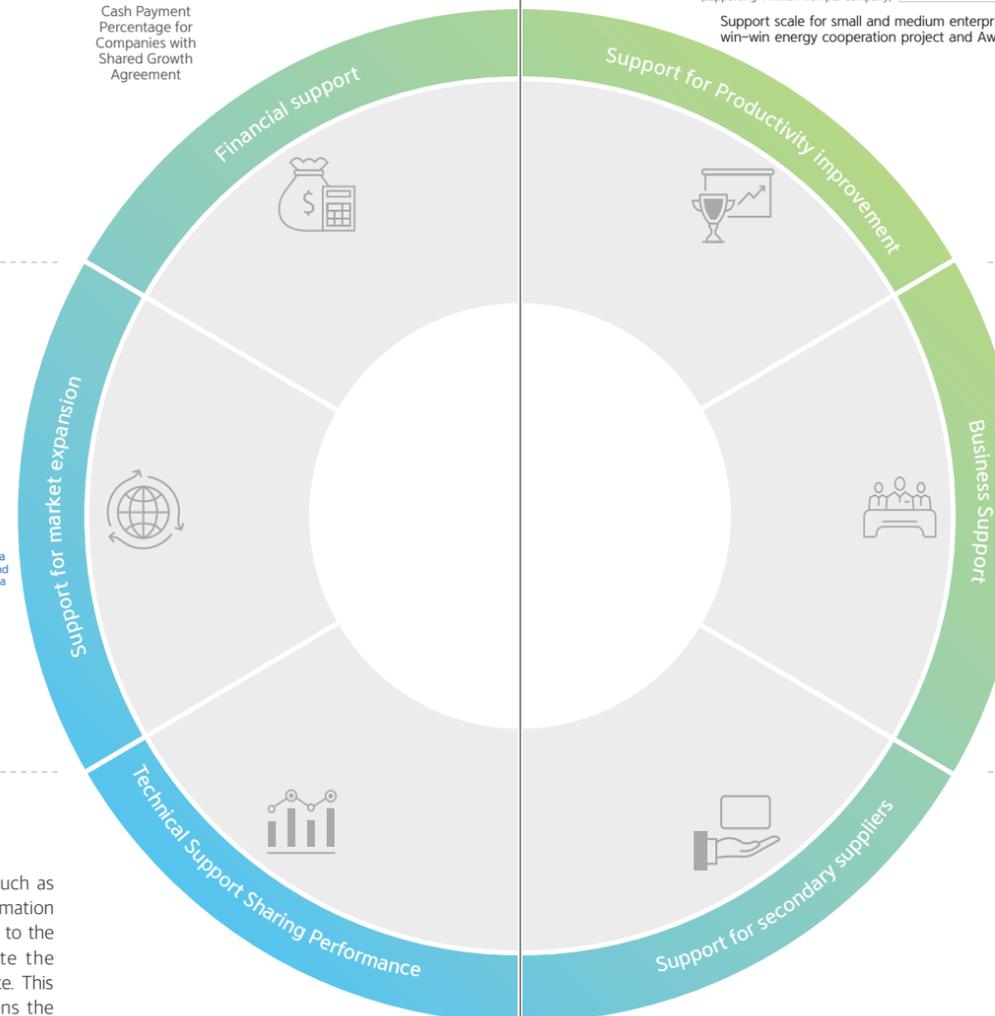
Organization of Participation in Joint Research for Technology Development



20 million won in total
(supporting 4 million won per company)
Support scale for small and medium enterprises win-win energy cooperation project and Award



Prize from the Minister of Industry



✓ Productivity Improvement Consulting

Based on the consultation of external experts, we are working to diagnose and improve the productivity of our suppliers and conduct consultation and improvement.

✓ ICT-QC (Smart Plant) Support

We are implementing a smart plant system that incorporates information and communication technology (ICT), such as automating quality inspection and real-time monitoring system for SMEs in cooperation.

✓ Plant Tour Program

We have selected excellent suppliers from Power & Industrial Systems PG Changwon Plant to visit the Changwon Plant and transfer know-how such as quality and productivity improvement. We also listen to our suppliers' suggestions and improvement ideas and reflect them in the process.

✓ Cooperation with Large and Small Sustainable Energy

Hyosung's former and current expert-oriented energy management innovation advisory groups are formed to diagnose energy status of partner companies and induce improvement.

✓ Management Consultation Service

We conduct necessary consulting activities with the FKI regarding business strategy, marketing, information technology, and new business development for the primary and secondary partners in business with Hyosung.

✓ Support for Partner Training

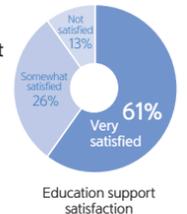
Together with external professional education institutions, we provide job training tailored to the characteristics of employees such as quality innovation, manufacturing cost reduction, and human error prevention.

✓ Overseas Training Support

We provide excellent partner companies with training opportunities for overseas advanced companies. They benchmark the production know-how of advanced companies to acquire tools to improve the production process and improve the performance of innovation.

✓ Educational Site Support

We open one of our training centers to our partner companies, so that they can conduct training and workshops.



Education support satisfaction

✓ Shared Growth Agreement between First and Second-tier Suppliers

We have established an autonomous fair trade order between primary and secondary suppliers and are extending the benefits that were granted to existing primary suppliers to the secondary suppliers.

✓ Industrial Innovation Movement

We provide consulting and equipment support for productivity improvement centering on secondary and third-level suppliers.

✓ Coexistence Payment System Operation

We have made it possible for the first-tier suppliers to pay the second-tier and third-tier suppliers the receivables from large companies, making sure that the receivables are collateralized and that the interest rates on large companies are applied to cover low interest rates.

✓ Cash Payment Monitoring

We monitor the performance of the primary supplier's cash payment to the secondary supplier to help the second are supplier recover the payment promptly.

Jeonbuk-Hyosung Carbon Industry Nurturing

Hyosung supports carbon, agriculture, traditional culture and ICT-related entrepreneurship businesses in the Jeonbuk province so that entrepreneurship, ventures, and SMEs can gain competitiveness. Through this, we will contribute to strengthening national competitiveness by revitalizing the local economy and nurturing hidden champion companies.

Support Status



Area of Priority Support

Establishment of a Value Chain for Small-Sized Materials and Early Activation of the Carbon Industry Valley

Establishment of carbon value chain

- Intermediate materials (prepreg, fabric), composite (CFRP) molded products for automobile, aviation, industrial, sports, household goods

Early activation of the carbon industry valley

- Realization of 'Carbon Industry Mecca, Jeonbuk' such as the MAI and CFK Valley in Germany

Cultivating the Bio-Agriculture and Cultural Fusion Industry

High-value-added commercialization of agricultural property

- Overseas target search and marketing of promising items
- Business establishment linked with national food clusters

Fostering tangible, intangible traditional culture ICT convergence industry

- Hanji interiors, crafts, atelier art industrialization
- Vitalize high functional mixed textile industry to add value to the industry

Establishment of a Foundation Fund

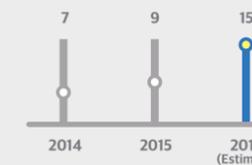
Hyosung is investing in funds to foster industry to support business fund by establishing start-up support funds and contributing to creation of healthy start-up ecosystem. The funds are being executed transparently through investment management companies. As of 2016, the total funds under management amount to 50.5 billion Korean won.

[Case 1] Cotton Queen Co.,Ltd. Win-Win Case of Large and Small Businesses

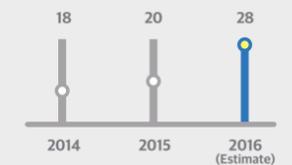
Cotton Queen Co.,Ltd., a manufacturer specializing in the production of functional fibers and fabric used in outdoor and sports wear, has entered into a business agreement with the Hyosung Innovation Center in October 2015. They have achieved the development and sales of high-performance fibers through the support of Hyosung's technology, R&D capabilities and distribution network. As a result, employment status and sales status are gradually improving, and they are planning to develop new functional textiles for sports that are expected to show sharp sales increase in the future.

Key Achievements and Plans

Employment Status (Unit: person)



Sales Status (Unit: 100 Million)

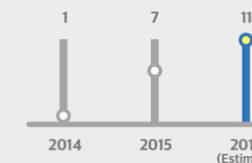


[Case 2] CES Co.,Ltd. Carbon Industry and Agriculture Collaboration

CES Co., Ltd., a carbon fiber cable manufacturer used in agricultural green houses, is one of the most successful cases of shared growth with Hyosung. Hyosung has provided CES Co., Ltd. with expert mentoring, financial support (Fund investment 500 million Korean won). CES has successfully installed carbon heating cable in a 13 hectare farm in Korea. In addition, they are conducting detailed coordination in order to introduce green house heating in China using Hyosung's trade network and are working on cooperation and support for applying carbon-heating cable heating system to build Smart Farm in Sejong City.

Key Achievements and Plans

Employment Status (Unit: person)



Sales Status (Unit: 100 Million)



[Industrial Innovation Movement Case] Buchang Heat Treatment Build the Foundation for Smart Plants

Buchang Heat Treatment specializes in aluminum heat treatment. Through innovation activities with they improved the inefficiency of existing process management, product inspection operating system, and data collection, and advanced the production system. In addition, they enhanced the reliability and accuracy of information systems through automation of computerization and management of data, and encouraged innovation for all employees and improved work environment. They have established a system of key management indicators in production and process management, ensuring consistent quality and systematic improvement. This has drastically increased the process reprocessing rate and quality control inspection time, and achieved reductions in facility utilization.

Key Achievements

Re-treatment rate* (Unit: %)



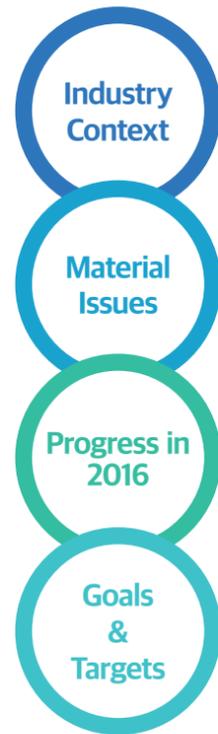
Facility time operation rate (Unit: %)



* Re-treatment rate: Percentage of products that go through further processing due to abnormal product quality in primary processing

Local Communities

Management Approach



The concept of 'social responsibility as a corporate citizen' does not see the company as an organization that only engages in economic activities but as a part of active and positive social organisms. At the same time, corporate activities are expanding to the global stage, and companies' efforts to respond to global issues are emphasized.

In 2016, major issues of interest to internal and external stakeholders in relation to the local community were surveyed as 'strategic social contribution activities linked to business strategy' and 'participation in community economic and social development.' Activities and achievements for each issue, future plans, etc. can be found in each part of the text.

We have established an existing sharing management system and are actively engaged in activities to strengthen Hyosung's identity as a free medical treatment project in Vietnam and support for culture and arts. In particular, in addition to the Nanum Volunteer Corps, our employees create a social contribution participation culture through their relay volunteering on the occasion of our 50th anniversary.

We plan to gradually expand the support for sharing management so that everyone who needs the help of society can benefit. We also want to strengthen long-term, substantive support rather than temporary support. At the same time, we will share Hyosung's will to share with the outside world by continuing to discover social contribution programs relating to the business strategy.

2016 Hyosung Sustainability Performance

Number of Social Contribution Programs



44 Programs

Social Contribution Investment



3,332 million won

Number of Employees Participating in "One Person One Volunteer" in celebration of 50th Anniversary



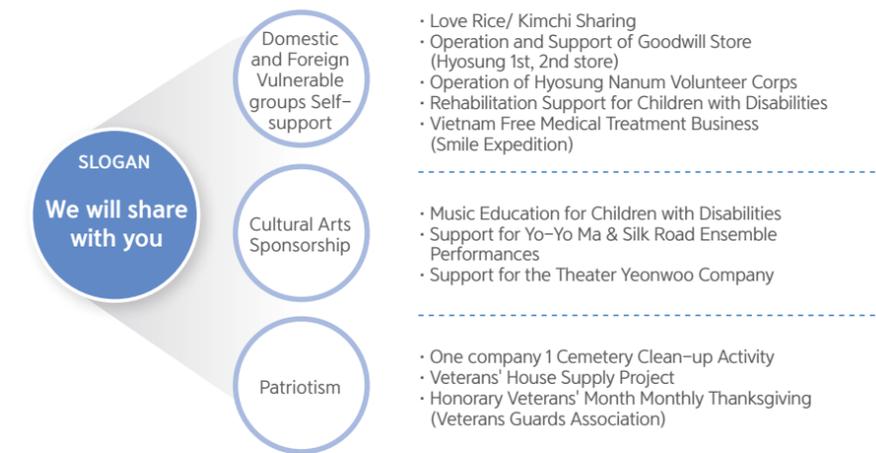
10,852 persons

Sharing Management



In celebration of the 50th anniversary of its founding in 2016, the company has been reorganizing its existing social contribution activities into three core tasks: support for independence of vulnerable groups, support for cultural arts, and patriotism and appreciation for nation. At each of our business sites, we are promoting social contribution activities that are specific to each region according to the direction of corporate social contribution.

Social Contribution



Sharing Business Performance



Awarded Prime Minister's Prize for Korea's Sharing People in 2016

We have been recognized by the Hyosung Nanum Volunteer Corps for voluntary participation by its employees.



Won the Vietnam Global Service Minister Award

Hyosung Vietnam Corporation was awarded the Ministerial Award for Planning and Investment Prize in recognition of its contribution to the 'Smile Fellowship' and 'Hyosung Blue Challenger' activities at the Vietnam Corporate Social Responsibility (CSR) Award Ceremony held at Ho Chi Minh City.

Corporate Sharing Management

Support for the Self-Reliance of Vulnerable Domestic and Foreign Groups

- 1 Blood donation of love / sharing happiness
- 2 Deliver business funds to support female employment
- 3 Support medical rehabilitation for children with disabilities

Projects to Support Disable Children & Youth Medical Rehabilitation and Family Support

- Support for children with disabilities and rehabilitation
- Support for non-disabled brothers and psychotherapy
- Supported Family Travel for families with children with disabilities and families of executives

Culture and Art Sponsorship

- 4 Donation to a theatre company Yeonwoo
- 5 Support for theater productions and producers
- 6 Onnuri Love Chamber



Blood Donation of Love/Sharing Happiness

We voluntarily participated in the "Blood donation of love/sharing happiness" event. 500 blood donation certificates and donations from employees will be sent to the Korean Society of Leukemia and Pediatric Cancer to be used for children who need help.

Donation to Female Employment Support Project

We contribute 70 million Korean won to Jongno Women's Human Resource Development Center to contribute to the employment of underprivileged women. Since 2013, we have been supporting career training opportunities for middle-aged women such as food culinary experts, daycare teacher training courses, and certification courses.

Projects to Support Disable Children & Youth Medica Rehabilitation and Family Support

Since 2013, we have been supporting the rehabilitation of children with disabilities with the Purme Foundation, a non-profit organization that helps people with disabilities to rehabilitate and become independent. In addition to supporting rehabilitation costs for disabled children and adolescents who are not treated appropriately due to economic circumstances, we also sponsor siblings of children with disabilities in aspect such as psychotherapy family trips to build positive family relationships.



Support for Theater Productions and Producers

We have contributed funds to Yeonwoo theater company, and contributed to the revitalization of Korean creative plays. Donations are used for activities such as finding new actors, writing scenarios, and creating creative plays. We also support the start-up of young performers. In 2016, we will send donations to Jongno Women's Human Resource Development Center to train young performers and create jobs for them.

Changdeokgung Palace Preservation Volunteer Activity

Hyosung employees regularly participate in Changdeokgung Palace cultural heritage protection activities. In 2016, we have cleaned up Juhmun with the families of our employees, preserving and protecting cultural heritage, while creating opportunities to communicate and improve harmony among employees.

Sponsorship for Disable Children & Youth Orchestra

We continue to support Onnuri Love Chamber, a youth orchestra with physical and intellectual disabilities. The donation is used for musical instrument purchases and scholarships, providing them with opportunities to perform in front of many people, such as the Sevitseom outdoor stage in the Han River Park.

Patriotism

- 7 Shelter Project Support
- 8 1 company 1 cemetery sisterhood agreement
- 9 Opening ceremony for Reading Cafe



Program	Detailed Contents	Achievements
Sponsorship for Veterans' Shelter Project	We support the veterans of the Korean War and the Vietnam War by repairing the underdeveloped shelters of those who are experiencing financial difficulties in life.	Veterans Sponsored 210 persons
1 company 1 cemetery sisterhood agreement	We visit national cemetery in Seoul, Daejeon and Yeongcheon every year on Memorial Day and National Armed Forces Day to honor patriots' spirits through volunteer activities such as polish remover.	The Ceremony for patriots participants 130 persons
Army that read books	We have concluded a 1 company 1 army agreement with the "One company-one Army Corps" the ROK Army and provided books for soldiers in two "Book cafes of Love"	Sponsorship of the Reading Cafe of Love 2 branches

Creating Jobs

- 10 Go-With Multicultural Social Business Support
- 11 Village Rainbow (Co., Ltd) Staff
- 12 Goodwill Store Hyosung 1st Store



Go-With Multicultural Social Business Support

As part of the 'Go-With Multicultural Social Business Support Project' to help migrant housewives and children of multicultural families enter the society, we selected and supported three social enterprises including Village Rainbow (Co., Ltd). Village Rainbow (Co., Ltd.) is conducting multicultural classes for schools and kindergartens with Hyosung. In addition, they are coexisting with multicultural families through activities such as multicultural performance group 'coloring' operation and multicultural food catering business.

Social Enterprise 'Goodwill Store' * Support

We have established 'Goodwill Store' which is operating under consignment. 'Goodwill Store' is a social enterprise that sells goods donated to corporations or individuals at low prices and contributes the profits to job creation and vocational education training for people with disabilities. It also contributes to economic self-reliance of the disenfranchised people by employing them. Since opening the first store in Eunpyeong-gu in November 2013, we have opened a second store in Sevitseom and will gradually increase the number of stores near Changwon, Ulsan and Anyang.

* Goodwill Store: A social enterprise business model that started in the US and currently operates 2,400 stores in 13 countries, including Canada, providing over 100,000 jobs. Hyosung established 'Hyosung Goodwill Store' in collaboration with Goodwill.

Employee Volunteer Activities

Hyosung's employees carry out their volunteer activities to share warmth with their neighbors. We want to convey true heart through long-term and continuous relationship, not temporary activity.

Hyosung Nanum Volunteer Corps



The Hyosung Nanum Volunteer Corps received the President's Award from the National Council for the Promotion of Children with Disabilities in recognition of its efforts to support children with disabilities and youth.

We organize the Hyosung Nanum Volunteer Corps to carry out consistent social contribution activities. Employees at the head office and each work place takes initiatives to form a volunteer corps to conduct regular social contribution activities. The Nanum Volunteer Corps, which is operated as a company-wide unit, consists of a volunteer leader and a team under management. Any employee can join at any time. We are operating a paid support system, rewarding excellent volunteers, and motivating employees to voluntarily fulfill their social responsibilities.

Compensation for Participants of Nanum Volunteer Corps

We are encouraging the voluntary participation of our employees by operating a variety of incentive programs based on participation in the Volunteer Corps. We provide service mileage for volunteer activities, perform personal service evaluation and compensation, and give awards such as gift certificates and recognition to excellent volunteers based on their performance. In addition, we provide a paid support system to encourage volunteer activities on weekdays. In addition, we provide a paid volunteer system to encourage volunteer activities during work hours.

Main Activities in 2016

We have established long-term and intimate relationships with childcare centers and social welfare centers by visiting them on a monthly basis. In 2016, we donated vehicles to children's homes for children with mental disabilities and provided safe and comfortable outdoor activities for children. In addition, the 'Flying Blue Dreams' event was held at the Shinmok Community Welfare Center. At this event, we invited over 100 children in low-income families and children with disabilities to enjoy games like football games, quizzes, jumping rope, and operated a snack booth for them.

New Employee Volunteer Activities with Executives

As part of our introductory training program for new employees, we are carrying out social contribution activities of love. In particular, executives become mentors of new employees and participate in activities such as delivery of briquettes of love, so that they can gain corporate social responsibility at the same time as they join the company, and utilize it to feel belonging as a Hyosung person.



Serving the 50th Anniversary Relay

In celebration of the 50th anniversary of its founding, we have promoted the '50th anniversary relay service.' Through the participation of our employees at the head office and business sites, we have actively implemented Management of Sharing, including Goodwill Donation Day and payroll sharing, as well as various local sharing activities with the goal of 'one volunteer a person.' We will continue to play our role as a good partner to the community in the future.



SPECIAL ISSUE

Global Medical Corps Smile Expedition



In 2011, we created the "Smile Expedition" with the intent to 'Give back the Vietnamese their smile' by providing free medical services to people with disabilities and the poor in Vietnam's Dong Nai province. Hyosung fulfills its social responsibilities as a part of sharing in the Dong Nai province of Vietnam, where plants for spandex and tire cords are located. Vietnam has many citizens who are unable to benefit from medical services due to poverty. Hyosung organized the 'Smile Expedition', a free medical

service group in Vietnam. Also we collaborate with the international relief group "Famine Measures" to provide various kinds of medical services free of charge including dentistry, obstetrics and gynecology, internal medicine, orthopedic surgery and oriental medicine. At the same time, we conduct basic medical health education including pregnancy, childbirth, and brushing education. In addition, regular health checkups are provided for elementary school kids to monitor their health status closely.

Medical Service Aid and Achievements

1. Health checkup and medical treatment for Dong Nai residents
2. Pregnancy, childbirth education and toothbrush use education
3. Annual health examination of Foo Ok Tien Elementary School
4. In necessary cases we send them to Korea for surgery and follow-up treatment



Medical Check-up
1,149 persons

People who completed the education
1,950 persons

Subject to Medical examination
9,447 persons

[Case] Additional Follow-Up Treatment for Smile Fellowship

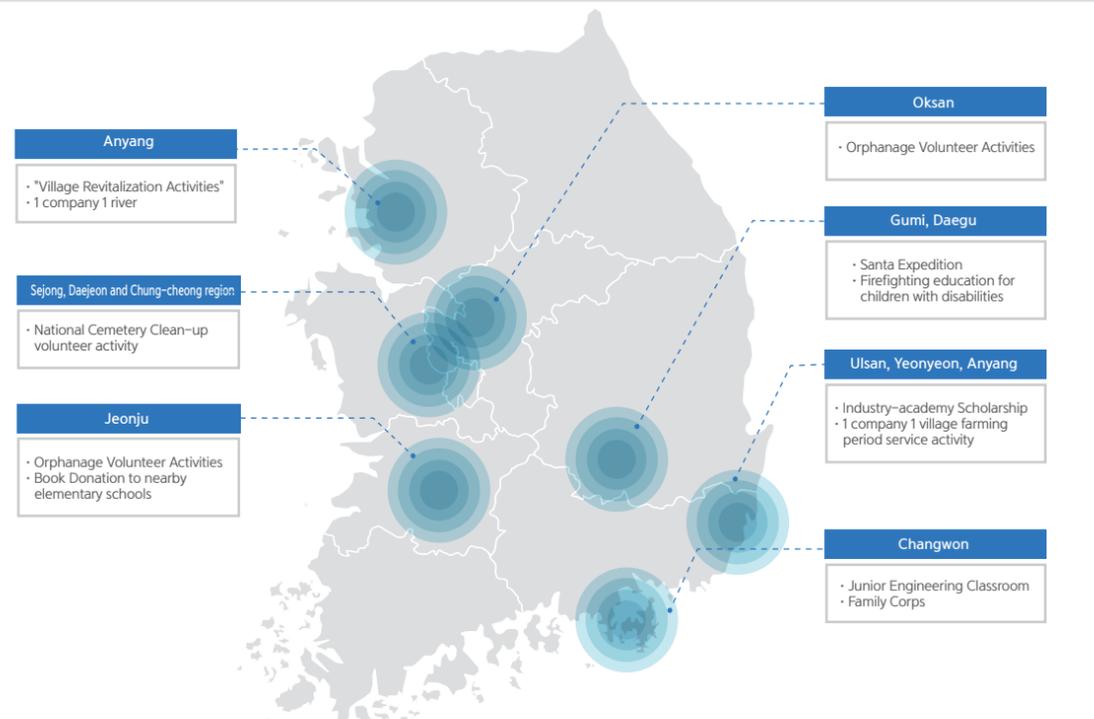


The younger brother of Tran Thi Kim Phuong, a staff member working at a Vietnamese subsidiary, JJunduk Taigun, visited Korea as a follow-up additional treatment for 'Smile Expedition.'

Taigun, who was uncomfortable due to traffic accidents, was able to walk a short distance alone after having undergone primary surgery and rehabilitation treatment in Korea. He says that he would like to help his mother to help his family when he recovers his health by restoring the nerves of the legs to the maximum extent possible through a second surgery.

All of the Hyosung people are hoping for a quick recovery and a better life of him who is learning painting and computer at Ho Chi Minh City School for the Disabled.

Sharing Management by Site



✓ Changwon



Naedong Elementary School's Junior Engineering Class

"Teaching Children" as part of our social contribution activities, we provide science education donations for elementary school students. Expert researchers from the Changwon Plant became instructors, and explained principles of Hyosung's representative products, and made miniature samples of them.

Family Volunteer Group

We have volunteer group made up of the family members of our employees. We regularly visit local social welfare facilities on a monthly basis to share warmth with our neighbors who need help. In 2016, we visited the Changwon Nursing Home and repaired wheelchairs and beds performed leakage check and other maintenance.

✓ Ulsan, Yongyeon, Eonyang



Industry-Academy Collaboration Scholarship Award Ceremony

We offer scholarships to students from Ulsan University who have excellent academic performance and economic difficulties. We are providing financial support so that students can concentrate on their studies steadily.

1 Company, 1 Village Farming-Period Service

We visited harvesting village of Onyang-eup, Ulsan, a sister village of our 1 company, 1 village campaign, in the farming season, which is the busiest time of the year, and helped them harvest rice and sweet potatoes. Since the establishment of the sisterhood relationship in 2005, we have been supporting rice planting and harvesting and silver party every year.

✓ Gumi, Daegu



Santa Expedition

Since 2008, Gumi plant has been supporting the Gumi plant Santa expedition event organized by the Children's Foundation Gyeongbuk Regional Headquarters every year. The Santa Expedition delivers gifts and living-support money that can deliver dreams and hopes to disadvantaged children in the region.

Fire Safety Education at Childcare Facilities

The Gumi plant's own fire brigade has conducted fire safety training at childcare facilities for local handicapped children. They raised awareness about safety for disabled students with disabilities, and educated them on prevention education and how to deal with them.

✓ Jeonju



Hyosung Orphanage Volunteer Activities

Jeonju plant regularly carries out "Love Sharing Volunteer Activities" at the nearby Hyosung Orphanage. In 2016, we focused on the landscaping of the orphanage and carried out activities to improve the facilities and made flower beds.

Donation of Books to Nearby Elementary Schools

We regularly repair old facilities in nearby elementary schools and libraries and donate books. We support children's dreams with abundant knowledge.

✓ Anyang



Village Recreational Activities

We participated in environmental improvement activities of Myeonghak village near Anyang plant. In 2016, we painted the old worn-out walls of Myungak Elementary School, painted murals, visited the difficult families in the village, changed the wallpaper and cleaned the toilet.

1 Company, 1 River Environmental Cleanup

We regularly conduct environmental cleanup campaigns to find rivers in the area. We are contributing to the clean environment of the community through the collection of garbage and dirt around the river.

✓ Chungcheong Region including Oksan, Sejong, Daejeon



Orphanage Volunteer Activity in Each Region

We regularly visit orphanages in each area to improve the living environment of children and provide educational services. In particular, Oksan Plant has visited Chungbuk Hye-neung orphanage to continue its activities for the convenience of children.

Cleaning of National Cemetery

Every year on Memorial Day and Armed Forces Day the employees of Chungcheong worksites visit the Daejeon National Cemetery to worship the fallen patriots and conduct cemetery cleanup volunteer activities.

✓ Overseas Business Sites

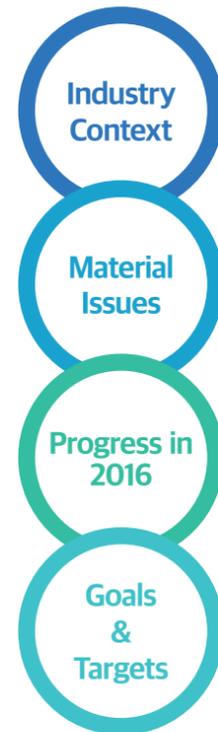


Donation of the third Hyosung Library in Vietnam

Hyosung Vietnam Co., Ltd. collected funds and opened the third Hyosung library in Pudong Elementary School. We remodeled the lacking school facilities and provided educational and cultural support.

Environment and Safety & Health

Management Approach



From the procurement of raw materials to the use of products by customers, social interest in environmental impact and safety has increased significantly. Especially, since it is directly connected with the growth of the company due to the enforcement of regulations on various environmental safety and the pressure of external stakeholders, the preemptive response to this is considered to be an essential factor for corporate competitiveness and sustainability.

We examined issues of environment, safety and health that concern our internal and external stakeholders. As a result, major issues were identified: responding to climate change, promoting corporate safety and health culture, and minimizing the environmental impacts associated with the release of toxic chemicals. Activities and achievements for each issue, future plans can be found in each part of the text.

Based on the Green Management Vision 2020, Hyosung has established an environmental management system for each business site to respond to various environmental issues. At the same time, we are making efforts to continuously invest in facilities and improve processes to maximize energy efficiency. In addition, we regularly conduct safety and health education to create a culture of safety and health, risk assessments at workplaces, and periodic safety assessments to ensure safe workplaces.

Hyosung will make continuous efforts to develop eco-friendly technology, such as premium efficiency motors, low-temperature processed yarn and recycled yarn using waste fishing nets. It will also respond to climate change by practicing efficient energy use management in factories and developing further greenhouse gas emission mitigation projects. In addition, we will create a better work environment in order for all our employees to work safely and comfortably.

Hyosung Sustainability Performance

GHG Reduction



Investment for the GHG Reduction



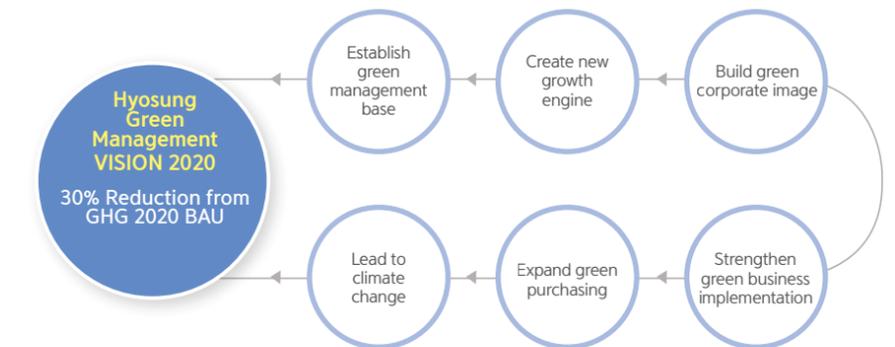
Awarded by Minister of Industry and Commerce



Green Management



Hyosung has established the Green Management Vision 2020 and set a goal to reducing green house gas (GHG) emissions by 30% in comparison with the 2020 BAU (Business as Usual) based on a three-year average of annual greenhouse gas emissions unit from 2007 to 2009. To this end, we have established a GHG computerization management program to monitor the emissions and targets of each site. In addition, we have set up an internal management system to establish a management system by clarifying detailed manuals, responsibilities and roles by each workplace, and benchmarking the reduction method by sharing best practices at workplaces. In addition, we disclose our green management activities and achievements through business reports, sustainability reports, and environmental information disclosure system. Since 2012, we have been evaluating our efforts to respond to climate change through participation in the Carbon Disclosure Project (CDP).



Green Management Operating System:

In order to establish a company-wide green management system, the Green Management Team, which is a dedicated department, assumes responsibilities for the overall management of environmental management including greenhouse gas emission control, chemical substance response, greenhouse gas emission business management and external environmental management communication. In addition, all workplaces have designated a dedicated team for environmental safety, and are conducting work to reduce the environmental impact of workplaces, fire safety, work place safety and health safety.

Climate Change Response



Received Climate Week 2016 Prize from Minister of Trade, Industry and Energy

Emissions Trading System

In 2009, prior to the introduction of the goal management system, the first greenhouse gas reduction regulation in Korea, Hyosung participated in the project to register greenhouse gas reduction achievements by the Ministry of Commerce, Industry and Energy to reduce responsibility for climate change. In addition, voluntary reduction activities such as recycling through the recovery of the SF₆ (Sulphur hexafluoride), which has the highest global warming index, were carried out and 86,000 tons of early reduction was recognized. In addition, we invested about KRW 12 billion to install greenhouse gas reduction facilities. After registering the CDM (Clean Development Mechanism) project in the United Nations in 2011, we transferred 1,450,000 tons of emission certificates to domestic market and made efforts to revitalize the domestic emission market. Recognized for its efforts and achievements, we received the Ministerial Award from the Ministry of Industry and Commerce in 2016 for climate action policy forum "Climate WEEK 2016", which is the largest policy forum on climate change in Korea. In 2014, we were selected as one of the best competitors in climate change competitiveness.

GHG Reduction Performance

Each of Hyosung's business sites establishes greenhouse gas emission reduction activities and targets every year to promote high-efficiency facility investment, process improvement, fuel replacement, and employee saving activities. In 2016, we are also continuing efforts to reduce energy consumption by sharing best practices by site.

GHG reduction



* '12 ~ '14: Target management system, '15: Emission trading system

* Expected to reach 16 years' allowance (At the end of March '17 the third party verification will be reported by the government)

GHG Reduction Performance Monitoring

Hyosung has achieved energy and cost savings through efforts to reduce greenhouse gas emissions, and ultimately achieve Hyosung's profitability and competitiveness. To accomplish this, we have established a GHG computerization management program in 2010 to systematically manage emissions targets and performance by site. We are reviewing the facility classification system to more accurately estimate emissions and strengthening the installation and management of instruments.

* Detailed energy use and GHG emission reductions by business sites can be found on page 88~89 of this report.



The Result of the analysis on Productivity Increase (Energy Saving) System

High-Efficiency Facility Investment

Maximization of Energy Efficiency through Information and Communication

We have developed and introduced a system that integrates Hyosung Information System (HIS) solutions to improve productivity and reduce energy consumption by collecting and analyzing all data of Hyosung site in real time and providing optimal operation method. In 2016, we introduced a pilot model for the Ulsan plant and confirmed the possibility of improving the quality and improving the process operation capability. In the future, we plan to gradually expand the scope of operations to domestic and overseas business sites. In 2017, we plan to finalize a project to maximize energy efficiency by utilizing information and communication technologies such as Internet of Things (IoT), which is owned by Power & Industrial Systems PG and Hyosung's subsidiary Hyosung ITX.

Hyosung is investing in aging facilities to reduce power consumption by developing, modifying and replacing high-efficiency facilities.

Introduction of High-Efficiency Inverter

Hyosung is improving the operation environment with low noise and vibration by reducing the power consumption with higher efficiency than the existing one by adopting the inverter operation method in manual or applying the inverter of high efficiency in order to enhance the operation efficiency in the process. The Jeonju Plant has improved the efficiency of supplying the necessary pressure and flow rate to the U/T cooling water pump. In the Yongyeon 3 Plant, we installed an inverter for the Gas Blower to lower its operation load. In addition, we are reducing GHG emissions through the replacement of the Anyang plant's dry process circulation pump inverter, Daegu Plant's tentacle dust collector with high efficiency inverter, and Changwon Plant's inverter type air compressor.

Developing and Replacing Premium Electric Motors

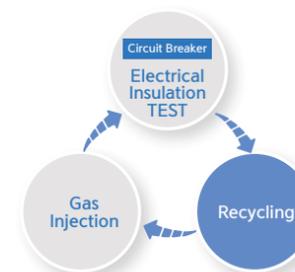
Replacing electric motors, which account for about 60% of the total electric power consumption in Korea, is the most effective energy saving plan. Ulsan Plant has invested 490 million won in 2015 to installed 114 premium motors developed by our Power & Industrial Systems PG. With the installment of 114 premium motors, we are saving 1,683 MWH of electricity each year and 785 tons of greenhouse gas reduction.

Introduction of Highly-Efficient SF₆ Gas Recovery System

The Changwon Plant has invested KRW 750 million to increase the SF₆ gas recovery rate used in the insulation testing process for circuit breakers, and has introduced a highly efficient recovery machine, reducing annual greenhouse gas emissions by 200,721 tons.

Introduction of Power-Saving Facilities

The Ulsan Plant has reduced power consumption and greenhouse gas emissions by converting power-consuming twisted yarn (work process) equipment into a power-saving type. With a total investment of 2 billion won, the project has reduced greenhouse gas emissions by 3,925 tons per year. In addition, we are reducing power consumption through a twelve-fold increase in existing production through the modified radiator using new technology.



* EE (energy efficiency) pilot project
Pilot project conducted by the government in 2015 to reduce power use. Project to pay subsidy for the achievement of the contracted demand reduction (KW) during normal operation during the peak period (winter and summer) after replacing existing facilities such as lighting, inverter, and motor with high efficiency facilities

Replacement of LED Lights and Automatic Lights-Out System

Hyosung contributes to creating a pleasant work environment by replacing metal halide lamps and fluorescent lamps with LEDs and reducing the unnecessary power consumption and reducing the fatigue of workers' eyes by improving illumination. In particular, the Changwon Plant participated in the EE (energy efficiency) pilot project* and replaced 6,389 ceiling lamps (metal halide lamps) in the plant in 2015. In 2016, 1,193 fluorescent lamps at facilities and, 5,764 units at offices have been replaced to improve productivity and save about 5,872.3 MWh of electricity, resulting in 2,737.96 tCO₂e of greenhouse gas reduction.

Improvements of Process and Operational Efficiency

Hyosung has redesigned the process in consideration of energy efficiency, and is making efforts to improve the reuse of waste heat and steam generated in the process. In addition, we are making efforts to manage unnecessary processes efficiently and to substitute fuel to reduce greenhouse gas emissions.

Efficient Operation of Facilities

The Ulsan Plant cuts steam turbine heat losses by eliminating some unnecessary sections in major production lines. At the same time, due to long-term operation, we are replacing aged equipment with high-efficiency equipment to reduce operating power cost and supply products stably. In order to reduce electricity usage in 2016, the Daejeon 3 Plant cuts down the operation time of the thermo-hydrostat in the plant when the plant is not in operation, shortening the chip preparation time and reducing the drying time. The Anyang Plant increased the efficiency of its operation by attaching an outlet timer to automatically turn off the power to the heating and cooling facilities such as FCU (Fan Coil Unit) and air conditioner at work.

Fuel Conversion and Efficiency



Yongyeon Plant Photovoltaic collector

Hyosung has reduced its greenhouse gas emissions and reduced fuel costs by converting its proprietary sulfur fuels, such as Bunker Coil used in boilers, into LNG and process-by-product gases with low greenhouse gas emissions. Ulsan Plant and Gumi Plant reduce the amount of LNG used in the boiler by supplying the by-product gas (methane) generated in the wastewater treatment process to the polymerization boiler (LNG). The Jeonju Plant is using less nitrogen than the capacity of the nitrogen generator in the U/T process and recycling the remaining air to low pressure air for process, reducing the operating time of the low pressure compressor and reducing the operating cost. In particular, the Ulsan and Yongyeon Plants have installed solar collectors in factories and parking lots, and are using for hot water production and internal heat transfer.

Wasted Heat and Steam Recycling

Hyosung is reusing the wasted heat from other companies and the wasted heat generated in the Hyosung Factories in the process and selling the steam generated from the Hyosung plant to the outside to create energy savings and economic profit. Ulsan, Yongyeon, Changwon, Gumi, Daegu, and Oksan factories are using wasted heat such as waste incineration heat from other companies to reduce the use of steam boiler fuel by installing steam piping.



Safe Workplace

Hyosung has established an Environmental Safety Team at each work site to promote workplace environment and health and safety improvement activities in accordance with its environmental safety and health policy. We also have systematic and robust activities and programs to improve employees' self-sufficiency management competence and safety awareness.

Hyosung has established a safety and health management system to prevent serious accidents and safety accidents, thereby ensuring a safe and pleasant working environment for employees and employees of partner companies. We have established a health and safety management system based on the health and safety manual at our workplaces that have higher risk in safety accidents and operate various programs to promote the health of our employees. In particular, each business site has established a systematic system by acquiring and maintaining KOSHA18001, OHSAS18001, and PSM certifications.

Safety and Health System



Operation of Industrial Safety and Health Committee

Hyosung's workplaces are working to improve the workplace by discussing safety and health issues and identifying problems with the overall safety and health-related issues through the Industrial Safety and Health Committee and the Council of Labor-Management, and they also represent all workers in the workplace under the Industrial Safety and Health Act. We regularly conduct joint labor-management checks to expand safety facilities, invest and train employees to raise awareness of safety.

Workplace Risk Assessment

Every Hyosung site conducts risk assessment every year to analyze and index the frequency and risk of the risk factors, making it a measure of risk management for continuous improvement efforts. At the Changwon plant, the autonomous safety check started from 2015, and the team leader, the head of the department, and others in charge of the department determine the theme of the inspection, and then use the checklist to identify and improve on-site risk factors. We have endeavored to establish a participatory voluntary safety culture with our members, where they are monitoring the improvement and attaching a risk table in order to recognize and eliminate the risks themselves. As a result, about 1,200 improvements are being made every year, and the cases of violations resulting from other safety inspections were greatly reduced.



Korea Occupational Safety and Health Agency's awarded us a plaque of Appreciation (For being selected as the excellent workplace for the symbiosis cooperation program)

Cooperation Program

In order to realize an accident-free workplace together with our partner companies, we are operating a "symbiosis cooperation program" with representatives of domestic and overseas suppliers. We have improved our employees' autonomous safety management capabilities and safety awareness through systematic safety management support, such as the development of training sheets and inspection sheets for each partner company and the training of risk assessment experts. As a result of these efforts, the Changwon Plant achieved the highest level in the evaluation of the symbiotic cooperation program organized by the Korea Occupational Safety and Health Agency in 2016 and achieved remarkable results, such as the zero industrial accidents record in 2016. Korea Occupational Safety and Health Agency awarded us a plaque of appreciation for being selected as the excellent workplace for the symbiosis cooperation program. In addition, 65 contracting partners which have been recognized as having excellent risk assessments can receive the benefits of a 20% reduction of the workers' industrial accident insurance premium for three years, a delayed safety supervision for the next year, and a government award preferential treatment.

Regular Safety Inspection

We conduct regular safety inspections to find out the potential risks of the worksite and attract employees' attention to prevent safety accidents. Regular safety inspections are carried out to check safety production inhibition factors and susceptibility factors based on processes with high risk of disasters. On the basis of the results of safety diagnosis, we identify and rectify on-site risk factors and problems, We are taking measures to improve the situation. In addition, the Green Management Team is responsible for developing a company-wide safety audit checklist to inspect all workplaces for violations of safety-related laws, safety and health management systems, PSM, fire and hazardous materials inspection, and chemical inspection. Based on the analyzed results, we are promoting various improvement activities.

Execution of Executive-Led Company-Wide Safety Inspection

Since 2007, Hyosung has been carrying out company-wide safety inspections conducted by plant managers to strengthen the prevention of environmental accidents. The plant manager and the head of the department participate in checking the major facilities on the site to promote environmental and safety awareness and to prevent disasters. Especially, at the Ulsan plant, all of the employees, from the general manager to executives and new employees, participated in the safety inspections. They awarded the "Very Good" award to excellent partner companies and demanded intense improvements to unreasonable items with all of the employees attending. We are carrying out facility improvement activities.

The Spread of the Safety Culture

Hyosung is building an autonomous safe workplace by improving employees' awareness of safety. Through safety education and safety culture dissemination activities, we improve employees' sense of safety management and lead them to voluntarily participate in disaster-prevention culture.

Conduct Safety Education

Hyosung establish annual environmental safety and health and self-education program at the beginning of every year for company-wide safety and health education. Every month, regular safety training is conducted at each and every workplace. In addition, Hyosung employees and employees of partner companies who work together at the workplace receive the education together.

Safety Experience Training



Changwon Plant Safety Experience Training

The Changwon Plant has been conducting quarterly safety experience training since 2013 to enhance the effectiveness of safety education. In order to prevent safety accidents that can occur in the industrial field, the safety experience training is designed so that the trainees can participate in the exercises and directly experience the risk factors and safety measures. From 2014 onwards, we are gradually expanding the program to cover new employees, development departments, and those who caused accidents in the field to improve safety awareness and prevent similar safety accidents.

Efforts to Establish a Safety Culture



Sevit Island Emergency Evacuation Drill

The Yongyeon Plant collects and analyzes case studies of other companies and shares them with all employees. The Changwon Plant distributes safety rules by analyzing the risk factors of each class and conducts joint safety and health campaigns with supervisors and affiliated agencies, thereby making efforts to internalize workers' safety consciousness. In addition, we regularly share safety and health issues at company newsletters and executive board meetings. We also strive to raise awareness of EHS by providing our customers with a brochure on safety and health compliance and emergency evacuation tips. Hyosung also conducts emergency evacuation drills, including emergency evacuation, first aid, rescue and fire drills, in preparation for the outbreak of fire, in cooperation with related agencies to safely operate the Sevit island. Through these efforts, we are developing safe awareness and coping abilities to ensure the safety of citizens even in emergency situations, and are making Sevit Island safe for citizens to enjoy.

Spontaneous Participation Culture

At the Ulsan and Changwon factories, the efforts are being made to establish voluntary participation and prevention-oriented processes through safety and health assessments at each department. The Changwon plant established an incentive payment system based on goal achievement by establishing a goal-specific number of days by analyzing risk factors and frequency of accidents. As a result, we have achieved a 6-fold increase in no-accident record and have shown a great effect in preventing accidents. In addition, we conduct safety and health assessments for each department, evaluation the performance of related supervisors, provide incentives for superior departments, and provide customized technical support for weak departments to make safer workplaces.

Health Promotion Program

Hyosung conducts a variety of disease prevention activities at its workplaces to promote the health of its employees. Every year, we make every effort to improve the health of our employees through regular health check-ups, special screenings for disease-affected persons, prevention of smoking and obesity, and stress management programs.

● Musculoskeletal Disorders Prevention Program

We are carrying out preventive activities for musculoskeletal diseases of field workers through management of musculoskeletal disease patients and on-site burden management. The Changwon Plant provides physical therapies and exercise therapies in cooperation with external experts to those who are selected through surveys and in-depth counseling on occupational health. As a result of exercise therapy in 2016, 44% of participants attained symptomatic improvement and we are continuing to improve the tasks that are prone to musculoskeletal according to our onsite hazard study.

● Smoking, Obesity, and Stress Management

Health and employee stress counseling is provided to employees through health check-ups and regular visits to health care centers. Special care is given to those who are suffering from diseases. We also promote personal health through voluntary participation of employees in smoking cessation and obesity programs linked to health centers. The Gumi Plant has also been recognized as a "Healthy Workplace NAVI Certification" site by Gumi City since 2012, thanks to its continued efforts to display health promotion booths and campaigns for drinking.

● Improving Healthcare Facilities

In order to manage the health of our employees, we operate physical therapy rooms, health care rooms, athletic treatment rooms, and treatment facilities in our workplaces at all times. In addition, facilities are being improved and expanded at each workplace to provide a better environment for employees.



Gumi Plant Physical Therapy Room



Changwon Plant Athletic Treatment Room

Hazardous Chemical Management

Hyosung is committed to the systematic management of chemical substances and the prevention of chemical accidents in response to the Chemical Substance Control Law and the Chemical Substance Control Law and the Chemical Substance Registration and Evaluation Act.

Strengthening the Management System for Hazardous Chemical Substances

Conduct emergency evacuation drills	Strengthen safety management at all sites	IT based management system construction
<ul style="list-style-type: none"> Joint Emergency evacuation drills conducted regularly with local fire stations, city hall, and military units 	<ul style="list-style-type: none"> Strengthen workplace safety management Safety accident experience learning essential Establish safety management process based on prevention Special inspection of safety management Strengthen employees' safety awareness through safety education observation programs and safety campaigns 	<ul style="list-style-type: none"> Chemical management system construction Chemical information database construction Controlling on Purchase-Order process of chemicals Safety check and education enforcement

Establishment of the Hazardous Chemical Substance Management System

Hyosung manages all chemical substances used in the workplace through an ERP-based computer system. All purchased materials are assessed for chemical presence through the system, and for chemicals, purchases that are not approved by the chemical manager at the site are blocked. After confirming that the material is subject to chemical regulation by using the material information provided by the supplier and the SERC DB* owned by the company, the material purchase is approved only when the regulation is completely met.

* SERC DB: SAP EHS Regulatory Content Database

Chemical Management System



Gumi Plant Chemical Substance Disaster Drill

In order to prepare for emergencies such as chemical spills and explosions, we have established a network of related departments and related organizations, and are conducting regular training for employees. In addition, comprehensive measures for chemical substance management have been established and a dedicated organization has been established and the responsibilities and roles of chemical substances in each department are defined. Businesses dealing with chemical substances are establishing plans to block outflows by preliminary investigation and identification of expected outflow routes of chemical pollutants, and establish a system for responding to leaks by establishing an offshore drainage and hazardous material shutdown facility in the final route. We also manage daily usage and inventory levels of hazardous chemical substances and conduct weekly on-site inspections by creating a risk factor checklist for hazardous chemicals. Contractors handling chemicals are required to report their contracts in accordance with legal procedures established by the EPA.

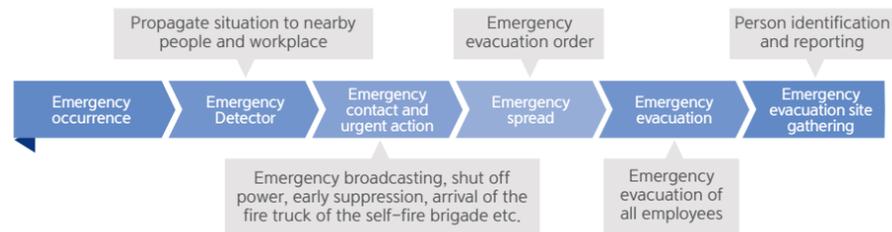
● Hazardous Chemical Workers Training

Hyosung conducts safety training twice a year for all employees at workplaces handling hazardous chemicals. This is to prevent chemical accidents even if you do not handle chemicals directly, and to guide safety measures and countermeasures in case of emergency. The contents of the training include such things as the effects of chemical substances on the human body and the environment, examples of chemical accidents, measures in case of accidents and measures to cope with them (personal protective equipment, how to use control equipment).

Emergency Situation Scenario

We prepare emergency scenarios to prepare for the accidental release of harmful chemicals such as ammonia and methanol, and use them to train our employees every year. The immediate response scenario, which takes about 10 minutes, minimizes the damage and raises awareness of safety accidents.

Emergency Response Process



Preventive and safety devices such as leak detectors, gas detectors and discharge jaws are installed around the hazardous substance storage in the plant, and periodic inspections are conducted to prevent the leakage of chemical substances. At the same time, we provide emergency protection and anti-pollution drugs to enable early response in case of emergency. The Yongyeon Plant installs material loading and unloading facilities indoors to prevent the spread of chemical spills. In order to respond immediately to an accident, we install a water spray system in the building and the leaked chemical neutralization facility. In addition, it is equipped with an automatic valve at the final outlet of the boiler room and monitoring of the control room that operates 24 hours a day. The Jeonju Plant checks its own handling facilities, storage status, and safety guard once a week at the Chemical Usage Department. Eonyang Plant has set up scenarios for preventive and emergency scenarios based on the types of environmental spillage of point pollutants and nonpoint pollutants such as outdoor tanks and storage facilities.

To ensure the stability of products, each business site manages toxic substances to below the standard level and replaces them with raw materials that do not contain toxic chemicals. The Gumi Plant is reviewing products that do not contain hazardous chemical substances and is making efforts to substitute them. By using less toxic substances in products such as hydrochloric acid and caustic soda as standard, we are gradually reducing the use of hazardous chemicals. The Optical Film Division of the Yongyeon Plant is replacing TPP, which is used as a plasticizer in the production of TAC film, with P0609 (PET plasticizer) to reduce the use of hazardous chemicals. In addition, the Changwon Plant changed the methanol used as a washing solution to non-toxic ethanol in 2015. In addition, in 2016, 12 powder coatings containing toxic TGIC were changed to powder coatings that do not contain toxic substances. The Anyang Plant does not use harmful chemical substances as a result of changing facilities and chemicals for hazardous chemical substance use facilities.

Businesses handling specific hazardous chemical substances over a certain period of time are responsible for over-the-counter impact assessments as well as managing hazardous chemicals through the Risk Management Plan. In the event of a spill, the company is aware of the impact on businesses, residents, and ecosystems around the site, and will evaluate it whenever there is a change in the amount of chemicals handled and handling facilities in the future. In addition, we have established a risk management plan and are making efforts to minimize the damage to local communities by notifying neighboring residents and related organizations of the hazards of substances to be handled and the precautions for evacuation in case of an accident.

Chemical Facility Management

Pollutant Reduction and Environmental Improvement Activities

Minimize External Impacts

Environmental Impact Management at Global Sites

China



1. Company name: Hyosung Chemical (Jiaxing) Co., Ltd.
2. Major products: PET tire cord, Technical Yarn, PET yarn, NYLON FILM, etc.
3. Number of employees: 1,100

Due to the enforcement of the Chinese New Relief Act, which became effective in January 2015, environmental regulations are being strengthened, and it is required to reduce environmental emissions through active environmental improvement activities. Therefore, Chinese sites are striving to reduce greenhouse gas emissions and to manage toxic chemicals at the workplace, while also making efforts for safety and health activities for employees.

Division	Detailed Activities
Reduce greenhouse gas emissions	<ul style="list-style-type: none"> • Reduced power consumption by converting to power saving type twist • All plant hot water supply through compressor waste heat reuse → Reduced steam usage
Hazardous chemicals management at sites	<ul style="list-style-type: none"> • Use of qualified professional companies for regular implementation of safety evaluation of hazardous chemical substances • Training of users of toxic chemicals and on-site inspection
Health and safety	<ul style="list-style-type: none"> • Regular 5S inspection of the general affairs and plant manager • Safety firefighting supervisor and daily security check for safety officer • Conduct fire fighting emergency response training

Based on these efforts, we saved 2,200 MWh of power consumption and 8,000 tons of steam consumption per year, and we achieved the result of winning a leadership award in firefighting from Jiaxing City. In addition, we have obtained Zhejiang Province safety production standardization certification, OHSAS 18000 and ISO 14001 certification, and obtained carbon labeling certification.

Vietnam



1. Company name: Hyosung Vietnam Co., Ltd. / Hyosung Dong Nai Co., Ltd.
2. Main products: textile tire cord, steel tire cord, electric motor, nylon, etc
3. Number of employees: 6,400

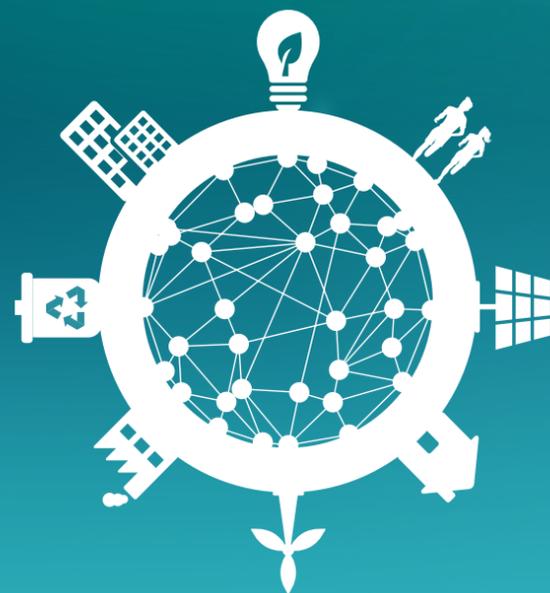
In Vietnam, environmental awareness of the government and the private sector has been increasing in recent years due to the recent environmental pollution in Formosa. Through our full-scale efforts, our business sites in Vietnam are appropriately discharging wastewater, properly operate air pollution control facilities and produce pollutants in the amount below regulations, and have received various awards and related certifications.

Division	Detailed Activities
Reduce greenhouse gas emissions	<ul style="list-style-type: none"> • Reduction of electric power consumption by introducing power saving type smoke detectors and retrofitting existing smoke detectors • Introduced high efficiency motor using twisted wire for expansion • Waste heat recycling
Hazardous chemicals management at workplace	<ul style="list-style-type: none"> • Management according to corporation regulations
Health and safety	<ul style="list-style-type: none"> • Revised safety work permit regulations in 2017 • Dissemination and application of environmental safety management system of the mother plant in Ulsan, Korea → Implementation and improvement of company-wide environmental safety check • Implementation and improvement of company environmental safety inspection

Based on these efforts, we have obtained ISO 9001, ISO 14001, OHSAS 18001, ISO / TS 16949 certification and obtained carbon labeling certification.

MANAGEMENT REPORT

Based on healthy and rational management systems, Hyosung responds to the expectations and needs of various stakeholders. We are pursuing sustainable growth that fulfills our economic, social, and environmental responsibilities.



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Governance Structure

Board of Directors

The board of directors is the highest decision-making body of Hyosung, and deliberates and resolves matters set forth in laws and ordinances, matters delegated by the shareholders' meeting, and important matters concerning the basic policy and business execution of the company's management. The chairperson of the board of directors is also the representative director. As of the end of December 2016, the board consists of four inside directors, six outside directors, and ten directors. At present, all members of the board of directors are composed of men, but the restrictions on gender, religion and academic background are banned. In addition, candidates for directors to be elected at the general shareholders' meeting are elected in accordance with fair procedures through the Board of Directors (Internal Directors) and the Outside Director Candidate Recommendation Committee (Outside Directors).

Board of Directors

We hold regular board meetings and extraordinary board meetings in accordance with Article 6 of the Board of Directors Regulations. The regular board meeting is held once a quarter, and the extraordinary board meeting is held whenever necessary. In 2016, a total of seven board meetings were held and a total of 27 resolutions were made, including reports on compliance support activities, transactions between companies, and key management issues.

Board Composition

(End of July 2017)

Division	Name	Gender	Position	Major Career
Inside Directors	Hyun Joon Cho	male	CEO, Chairman	(Current) Corporate management
	K.Y.Kim	male	CEO	(Current) CTO of Industrial Materials PG
	H.S. Cho	male	President	President of Corporate Strategy Center, Industrial Materials PG, CMO of Chemicals PG
	Sang-Hee Kim	male	Chairman of Audit Committee	(Current) Attorneys-at-Law, Kim Sang Hee Law Office, (Former) Vice-Minister, the Ministry of Justice
Outside Director	Min-Koo Han	male	Member of Audit Committee	(Current) Emeritus Professor, Electrical Engineering Seoul National University, (Former) Chairman of the board, the Korea Institute of Patent Information
	Byung-Ju Lee	male	Member of Audit Committee	Advisor Bae, Kim & Lee LLC, Former member of a standing committee, Fair Trade Commission
	Byung-Doo Sohn	male	Outside Director	(Current) Chairman of the board, Hoam Foundation, (Former) Chairman of the board, KBS
	Tae-Ho Park	male	Outside Director	(Current) Professor, International Studies Seoul National University, (Former) Trade Minister, the Ministry of Foreign Affairs and Trade
	Joong-Kyung Choi	male	Outside Director	(Current) President of KICPA, Former Minister, the Ministry of Knowledge Economy

Board Independence

The board of directors plays a role of checking and balancing the management and strives to maintain independence by appointing a majority of the total number of the board of directors with outside directors. In addition, in order to prevent conflicts of interest, the board of directors restricts the voting rights of directors with special interests in resolutions of the board of directors.

Board Professionalism

All candidates for directors are chosen in accordance with the corporate governance best practices and articles of incorporation, and are finally elected through a general meeting of shareholders. In addition, the board of directors is composed of members who have experience in business including economics, management, law, technology, and so on so that the functions of the board of directors can be faithfully carried out.

Board Soundness

Through its website, Hyosung discloses not only the composition and operation status of the board of directors, but also the role of the board of directors, operating procedures, articles of incorporation, and regulations on the operation of the board of directors. In addition, the Annual Report announces Board of Directors' decisions and activities, and the activities of committees within the BOD.

Board Subcommittees

The Board of Directors has a Management Committee, Outside Director Candidate Recommendation Committee, and Audit Committee. Each committee has independence and expertise and strengthens the board's management checks and supervision functions.

Management Committee	Outside Director Candidate Recommendation Committee	Audit Committee
<p>Role Determination of major management items through holding meetings (weekly meetings)</p> <p>Configuration Three inside directors (Hyun-Joon Cho, Kyoo-Young Kim, H.S. Cho)</p>	<p>Role Recommendation of Outside Director candidates</p> <p>Configuration One inside director and two outside directors (Sang-Woon Lee, Sang-Hee Kim, Min-Koo Han)</p>	<p>Role Accounting / management auditing, Investigation of property status</p> <p>Configuration 3 outside directors (Sang-Hee Kim, Min-Koo Han, Byung-Ju Lee)</p>

CSR Committee

Hyosung has established and operates the CSR Committee since 2008 in order to enhance its practice of social responsibility activities. In accordance with Article 2 of the CSR Committee Regulation, the COO (Vice Chairman) serves as the chairperson and the members of the CSR Committee consist of the PG chief and the general manager. We hold a regular meeting once every six months, and a temporary meeting is convened by the chairperson if necessary. The CSR Committee establishes sustainability management direction and strategy for sustainability management. In addition, the CSR Committee receives reports on CSR performance and sustainability reports related to economic, environmental and social responsibilities commissioned by the BOD. For the operation of the CSR Committee, the Legal Affairs Team of the Assistance Headquarters conducts related tasks.

Evaluation and Compensation

Hyosung conducts annual evaluations of its directors on its expertise related to its business and technology, and whether its activities are conducted by the Board of Directors. In addition, based on the results of these evaluations, we are rewarding the Board of Directors fairly and transparently through resolution of the general shareholders' meeting. Remuneration for the Board of Directors is paid within the remuneration limit approved by the General Meeting of Shareholders. The total amount of remuneration approved by the General Meeting of Shareholders in 2016 was 10 billion won. The retirement allowance of the board of directors shall be paid in accordance with the provisions of the executive severance payment regulations determined by the resolution of the general meeting of shareholders.

(Unit: million won)

Division	Number of people	Total Remuneration	Average salary	Remarks
Registered Director (Excluding outside directors and members of the Audit Committee)	4	8,657	2,164	-
Outside Director (Excluding members of the Audit Committee)	3	163	54	-
Audit Committee and Audit	3	163	54	-
Audit	-	-	-	-

* Payment standard is based on the payment standard of 2016

Ethical Management

Ethical Management System

Hyosung maintains the Code of Conduct, which contains the Code of Ethics and practical guidelines for employees to provide ethical management practices and operate transparent businesses. In addition, in order to implement systematic ethical management, the Compliance Support Team, a division dedicated to ethical management, was established in 2014 to establish anti-corruption compliance regulations and ethical education to prevent corruption and to improve the ethical awareness of all employees.

*The Code of Ethics can be found on the homepage (<http://www.hyosung.co.kr/en/csr/ethics/principles.do>)

Ethics Management Education

In order to make the ethical management more structured, we conduct company ethics training through in-house broadcasting. We are also operating ethical training centered on job-related activities as an essential curriculum departments and personnel with high ethical and legal compliance risks. In particular, ethical management education for ethical management employees provides information on ethical management issues such as responsible management and Kim Young-Ran law to raise awareness of ethical management.

In addition, we operate ethics curricula for new employees, newly promoted employees, and executives. We also conduct separate job-oriented ethics training for purchasing, contracting, planning management, and shared growth teams.

Ethical Management Awareness Proliferation

With the guidance of Compliance Support Team, all employees are writing a pledge of ethical management practice, an affirmative appeal, and a pledge of prohibiting the payment of money. In addition, we are making efforts to promote and internalize ethical management through the production and dissemination of promotional materials for ethical awareness. In addition, we share ethical rules through the Hyosung homepage and the partnership growth website of our affiliates in order to share ethical practices with our partners.

Task-Based Ethics Management Education Performance in 2016



1,371 persons

* Excluding the participation in company training

Report Channel

Hyosung operates an HR counseling room and a complaint handling room where employees can receive counseling about complaints and ethical standards that may arise during the work process. The HR counseling office is directly under the management of the personnel officer, and can report complaints during work, unethical acts such as sexual harassment, embezzlement and personnel irregularities. Confidentiality is ensured for the content received in the HR counseling office. When an investigation is needed for unethical behavior, the audit team takes over the case and processes it. In addition, we have mailboxes at Mapo Post Office so that employees can report unethical behavior for employees who are concerned about their identity.

Help-Line Operation

Hyosung maintains a Help-Line system for inquiries and reports on issues that may arise in business relations with suppliers such as unethical activities, bribery, illegal soliciting, problems, suggestions for improving problems and process, and unfair subcontracting. The Help-Line is operated within the 'Hyosung Shared Growth' site, and not only partners but other stakeholders can also receive and report on this channel.

Internal Audits

Hyosung conducts surveys on various aspects of its operations, including on-the-job surveys and job inspections. Since 1984, we have established internal audit regulations. In particular, we are also conducting audits on technology and quality areas to achieve customer satisfaction through trust in quality and technology.

Internal Audit Operating System

Auditors are required to perform their duties in independent positions during the audit duties. Regular audits are carried out according to internal audit regulations and special audits are carried out when specific themes or issues arise. In 2016, we conducted a total of 26 internal audits and took measures such as caution, discipline, and compensation according to the severity of the incident.

Post-Audit Management

The results of the inspection are reported to the CEO, and those who are notified of the results of the audit are asked to make immediate improvements to the matters indicated. At the same time, our audit team regularly reviews the same issue to prevent future problems.

The Number of Internal Audits in 2016



Risk Management

Risk Management System

We manage market uncertainties and internal and external risks that may have a major impact on our business activities. Depending on the nature of the risks, we manage them as financial or non-financial risks. Through the organic cooperation between the head office and domestic and overseas business sites, we have established a risk management system that encompasses the entire company and regularly conducts risk prediction and inspection. All employees are clearly aware of the content and are making every effort to reflect them in business decisions.

Key Risk Management

Hyosung works to minimize market risks and credit risks associated with liquidity, stock price, currency and other financial matters. Our financial team, international finance team and trade financing team work together to evaluate financial risks, assess performances and hedge against various financial risks. Depending heavily on trade, Hyosung particularly pays attention to currency-related financial risks. For non-financial risks, departments in charge of such risks take control to minimize related damages. We are committed to ensuring that all employees are clearly aware of the content and are able to incorporate it into business decisions.

Types and Definitions of Key Management Risks

Type	Management
Operational risk	Operational risks arising from improper use of personnel, work or system failures
Legal risk	Legal risks arising from unclear contracts, lack of understanding of contract clauses, or litigation
Disaster Risk	Risks that may arise from environmental pollution accidents, workplace facility accidents, and disasters
Reputation risk	Risk of declining corporate image that can result from misinformation or negative communication
Ethical risk	Ethical risks such as unfair trade practices or corruption cases that may arise during the transactions of internal and external stakeholders such as employees and suppliers
Security Risk	Risks such as cyber terrorism from outside or loss of information due to leakage of internal data
Environmental risk	Risks of legal sanctions and fines due to improper responses to environmental regulations, such as emissions of greenhouse gases and hazardous substances
Supply Chain Risk	Supply risks such as delays in delivery of products due to failure to secure raw material supply and production continuity
Human Resource risk	Risks due to outflow of excellent talent due to lack of opportunities for human resource development in education, compensation for evaluation, and serious accidents due to lack of safety and health at workplace

Performance Data

Economic Performance / Social Performance

Creating economic value and distribution to stakeholders

Hyosung creates steady and sustained economic value. We are fairly distributing our achievements to our stakeholders, including our customers, employees, shareholders and investors, suppliers, governments, and local communities.

(Unit: million won)

Division	2014	2015	2016
Sales turnover	12,177,134	12,458,454	11,929,113
Cost of sales	10,565,608	10,429,796	9,770,994
Gross profit on sales	1,611,526	2,028,658	2,158,119
Operating profit	600,346	950,169	1,016,347
Income tax expense	176,699	71,399	221,112
Total assets	13,662,074	14,013,178	14,120,801
Total Debt	10,766,805	10,541,064	10,279,585
Total capital	2,895,269	3,472,114	3,841,216

Division	2016	Remarks
Employee	1,108,323	Salary, Welfare benefits etc
Shareholders and investors	174,880	Dividends, interest expenses, etc
Partners	142,841	Purchase cost etc
Community	3,332	Social contribution investment etc

*In Consolidated F/S

Number of patent applications

Hyosung Institute of Technology, Power & Industrial Systems R&D Center, Steel Wire Research Institute and Electronics Research Institute are the foundation of Hyosung's advanced technology and product strength. We will showcase world-leading R & D technology through a culture that respects the intellectual property rights of individuals and organizations.

Division	No.			Accumulation		
	2014	2015	2016	2014	2015	2016
Patent Application	373	202	371	4,117	4,319	4,690
The Number of Patent Registration	133	119	185	1,929	2,048	2,233

* The number of applications filed is based on Hyosung Institute of Technology, Power & Industrial Systems R&D Center

Employee recruitment

In order to positively discover 'Global Leader' that can realize the value of Hyosung, we have established various recruitment channels such as regular recruitment, on-the-job recruitment, and campus recruiting. In addition, through the operation of individual on-line recruitment sites within the company, we disclose employment conditions and recruitment procedures in a transparent manner. All applicants have equal opportunities during the recruitment process and are not subject to unfair discrimination based on academic background, gender, or religion. As part of that, we have removed the identification photo attachments section and the family affairs section of the application form, and have removed restrictions on foreign language grades, school grades, and application age. The conditions of employment and the contract of employment are stated in the employment rules. All employees are guaranteed their rights according to this employment rule. In 2016, we expanded the range of hiring to nurture specialized talents and expand competitiveness in existing businesses by expanding domestic and overseas production facilities.

Status of Employees

(Unit : person)

		2014	2015	2016	
Number of Employees and Executives	Total Number	7,737	7,778	7,657	
	Division				
Executives Composition	Over 30 - Below 50	Male	35	29	24
		Female	1	1	1
	Over 50	Male	104	111	117
		Female	3	2	4
Employee Composition (by age)	Below 30	Male	894	928	809
		Female	357	334	277
	Over 30 - Below 50	Male	4,740	4,683	4,551
		Female	392	427	458
	Over 50	Male	1,194	1,245	1,396
		Female	17	18	20
Employee Composition (by gender)	Male	6,828	6,856	6,756	
	Female	766	779	755	
By position	Executive	143	143	146	
	General manger	592	567	591	
	Manager, Deputy general manager	1,158	1,309	1,456	
	Assistant manager	1,143	1,145	1,030	
	Staff, Assistant	850	672	475	
	기타	3,851	3,942	3,959	
New Recruits	Male	420	515	292	
	Female	77	69	54	
	Total	497	584	346	
Hiring of the disadvantaged	Employment of the disabled		148	138	126
		Rate	1.88%	1.63%	1.51%
	National Veteran		116	125	128
		Rate	1.50%	1.61%	1.67%
Occupation Sort	Job Office workers	4,808	4,758	4,621	
	Functional	2,600	2,757	2,778	
Employment Kind	Employment Full-time non-regular workers	7,408	7,515	7,399	
		329	263	258	
Location	Domestic	7,503	7,525	7,343	
	Overseas	234	253	314	

*In Consolidated F/S

Performance evaluation and compensation

We are building a fair performance evaluation system based on individual capabilities and performance. The evaluation process is clearly presented to the target person through the online personnel evaluation process. In addition, foreign language skills and education scores are added to the evaluation items to motivate individuals to voluntarily develop their competencies. This gives differential compensation based on the performance and achievement of the organization's target, and the basic initial wage rate compared to the statutory minimum payment in 2016 is 211%. There is no difference between men and women in the case of new employees' basic salary.

Percentage of Employees Subject to Performance Evaluations and Career Development Reviews

Division	Unit	2014	2015	2016
Auditor	person	4,311	4,325	4,219
Performance evaluation audit ratio	%	55.7	55.6	55.1

Basic Salary

Division	Unit	2014	2015	2016
New employees Basic salary	won	2,942,000	3,001,000	3,086,000
Average basic salary	won	3,975,249	4,238,244	4,404,060

Percentage of Return to Work and Tenure after Parental Leave

Division	Unit	2014	2015	2016
Percentage of returning to work after using parental leave	Female %	100	100	100
Percentage of working more than 12 months after returning to work	Female %	83.3	71.7	79

Labor management relations

In addition to Hyosung Labor Union, there are Metal Workers Union Hyosung Labor Union Branch, Metal Union Hyosung Changwon Branch and Hyosung Polyester Labor Union. In accordance with Article 17 of the collective agreement, if any important management issues arise, the company shall notify the labor union immediately. At the same time, each business site publishes the company's management status in a transparent manner to employees in the field through regular newsletters. On the other hand, regular meetings are held once a quarter to discuss welfare, grievance, and health and safety at the headquarters and labor-management councils at each business site including Gumi and Yongyeon. The complaints received are maintained throughout the company and continuously checked for improvement.

Division	Unit	2014	2015	2016
Number of employees covered by collective agreements	person	2,600	2,757	2,778
Number of employees	person	1,771	1,758	1,739
Percentage of employees who join the organization	%	68	64	63

* The application of the collective agreement is limited to the worker who has the union. If there is no union, the result of consultation of labor-management council is applied.

Employee Human Rights

Hyosung respects the dignity and the right to happiness that can not be compromised as a human being for all our stakeholders including employees. We support the ten UNGC principles, including the Universal Declaration of Human Rights adopted at the UN General Assembly, and the labor standards set forth by the ILO. In particular, in 2016, we have established a new human rights policy to clarify labor and human rights standards and disclose them on our Sustainable Management Report. We strictly prohibit the employment of children under 18 years of age and forced labor in all domestic and overseas workplaces and prevent any recurrence by promptly taking action against any violation or potential violations in workplaces. At the same time, we regularly invite external instructors to conduct sexual harassment prevention training for managers, and deliver training to team members.

Sexual Harassment Prevention Education Performance

Division	Unit	2016
Number of Participants in Education	person	7,657
Percentage of Participants in Education	%	100

HR Counseling Center

The HR counseling center, which is operated as a direct organization of HR executives, is used as a channel to immediately deliver complaints related to business affairs, human resources, and human relationships, including sexual harassment, embezzlement, and personnel irregularities, to HR executives. Feedback is provided through direct interviews with personnel officers, and the contents of the consultation are thoroughly kept secure. We are contributing to lowering the turnover rate of our employees by providing opportunities for job conversion or by consulting complaints.

HR consulting center reception and processing status

Division	Unit	2014	2015	2016
Number of the cases received and processed by HR consulting centers	case	21	12	11

* All received items should be processed immediately.

Retirement support system

The retirement pension system is operated for the economic stability after employees retire.

Number of Employees and Turnover Rate

Division	Unit	2014	2015	2016	
Number of employees and turnover rate	Gender (regular employee)	male person	651	699	315
		Female person	79	79	72
	turnover rate	Total person	730	778	387
		Total %	9.44	10.0	5.05

* Turnover rate is applied only to voluntary change of jobs amongst regular employees

Retirement Pension Support Status

Division	Unit	2014	2015	2016
Operating Amount	million won	51,737	58,094	64,701
Number of members (fixed salary, DB)	person	7,300	7,097	7,300
Number of participants (fixed contribution type, DC)	person	227	609	227
Total number of members	person	7,527	7,706	7,527

* All employees with retirement allowance are enrolled in the retirement pension system. (including those who are already registered and those who are newly registered, and those who joined the company after March, 2015 will be enrolled after March, 2017.)

Partner Companies Status

Hyosung intends to contribute to regional economic development based on its partnership with partner companies. Through fair standards, we will be able to find a good number of excellent partners and become the foundation of a healthy society.

Procurement policy

In order to achieve sustainable growth, Hyosung procures raw materials or contracts with its suppliers in accordance with its procurement policy and purchasing policy. In the case of raw materials, we recommend purchasing raw materials made from organic cotton, wool yarn made from biodegradable spunbond substitutes, and biodegradable substitutes. In addition, we strive to purchase low-environmental-impact chemicals.

Customer Satisfaction

We conduct customer satisfaction surveys for each PU. Surveys are conducted using tools such as online surveys, and the results of the survey and the subjects are kept strictly secure. We will continue to provide customers with products and services that reflect customer feedback.

Social contribution investment

We strive for long-term and efficient support for the development and growth of the community, rather than simple one-off support. In addition, in celebration of the 50th anniversary of the company's founding, we conducted relay volunteer work for all our employees. We conveyed the hearts and minds of Hyosung employees who are actively involved in resolving issues in the local community.

Division	Unit	2014	2015	2016
Social contribution investment	million won	2,734	2,775	3,332
Number of social contribution programs	case	26	35	44
Number of employees participating in social contribution	person	5,170	3,573	7,412
Social contribution total employee participation time	hours	20,680	14,292	29,648

Environment, safety performance

Plant Accident Rate

(Unit : %)

Division	2014	2015	2016
Gumi 1 Plant	0.22	0.44	0.00
Daegu 1 Plant	0.00	0.00	0.00
Daejeon 1 Plant	3.85	0.00	0.00
Daejeon 3 Plant	0.00	0.00	5.56
Anyang Plant	0.00	0.00	0.00
Anyang Plant	0.00	0.00	0.00
Oksan Plant	0.00	0.00	0.00
Yongyeon 1 Plant	0.00	0.38	0.34
Yongyeon 2 Plant	0.99	0.00	0.00
Yongyeon 3 Plant	0.00	1.67	0.51
Ulsan Plant	1.57	2.02	4.32
Changwon Plant	0.23	0.03	0.11
Jeonju Plant	0.00	1.08	0.00
Sejong Plant	0.00	0.00	0.00

* Three deaths due to industrial accidents in 2016

Raw Materials

We are striving for efficient use of resources. By replacing aged facilities, we minimize the changes in the physical properties of the resources and pollution level so that they can be recycled in the production of defective products, and pallets and other packaging materials are recovered and reused. By periodically inspecting the process, we will continue to improve the waste of raw materials, thereby reducing environmental pollution caused by waste of resources and reducing purchasing costs.

● Gumi Plant

In spandex PU, in order to reduce the amount of DMAc used as raw material, thermal camera shooting is introduced to reduce DMAc (Dimethylacetamide) leakage in the radiator, which is a major loss factor.

● Yongyeon Plant /Oksan Plant

Optical Film PU TAC division reuses raw materials after grinding if it is judged that the film is defective. By recycling the defective products without throwing them away, we are reducing environmental pollution and realizing cost reduction, thereby raising business competitiveness.

In addition, we provide free of charge raw materials that cannot be recycled as raw materials from the Oksan plant to be used as fuel for external steam suppliers.

● Daejeon 3 Plant

The Daejeon 3 plant is replacing production facilities to prevent the contamination of main materials, which are raw materials for recycled chips, and to increase the use of raw material chips. In addition, we are collecting and reusing pallets among our product packaging materials and plan to expand the types of packaging materials that are being reused. At the same time, in order to increase the recovery rate of the packaging materials, we are paying the bonus amount according to the amount of the returned goods.

● Raw Material Consumption

(Unit : ton)

Division	2014	2015	2016	
Textile PG	TPA (Terephthalic Acid)	326,294.0	329,600.0	305,224.0
	EG (Ethylene Glycol)	128,313.0	129,767.0	137,765.0
	Caprolactam	103,133.0	94,563.0	104,009.0
	Caustic soda (preparation)	662.9	719.8	752.7
	Hydro Na2S2O4 (Preparation)	69.2	73.2	74.1
	Synolon Black LSF ECO liq. (dyes)	24.8	25.2	26.5
	PTMG	17,587.0	17,481.0	17,570.0
	MDI	4,168.0	4,126.0	4,171.0
	Miscellaneous	2,199.0	2,329.0	2,346.0
Industrial Materials PG	PET-Chip (Polyester-Chip)	45,053.0	56,608.0	63,096.0
	Nylon-Chip	74,265.0	91,557.0	101,748.0
	Wire Rod	99,826.0	63,567.0	66,091.0
Chemicals PG	PX (Paraxylene)	276,809.0	254,301.0	271,603.0
	TAC	3,683.6	3,379.6	5404.4
	PET	34,887.6	45,045.5	61,020.9
	Propylene	368,201.0	340,082.0	362,981.0
	HF	6,275.0	3,208.9	3,873.5
	PET-Chip (Polyester-Chip)	20,832.0	20,500.0	19,118.0
	Nylon-Chip	10,931.5	11,204.7	11,369.9
Power & Industrial Systems PG	Iron plate (plate)	7,437.8	8,006.0	20,753.1
	Copper wire	6,587.0	8,350.0	8,717.0
	Electric steel plate (directional)	17,000.0	22,380.0	23,403.0
	Electric steel plate (non-directional)	15,187.0	15,740.0	18,630.0
	Steel (pig iron) wire	3,800.0	3,600.0	3,170.0

* The Jeonju factory is excluded from reporting for trade secret reasons

Waste management

In order to reduce the amount of waste generated in the production process and to minimize the environmental impact, we are continuously making efforts to improve the processing process and to increase the recycling rate by taking into account the characteristics and components of the waste.

● Jeonju Plant

The organic solvent used as the raw material was entrusted to an outside company, refilled and reprocessed, and recycled into the production process to reduce 178.63 tons of waste in 2016. In addition, we have made it possible to reuse the defective parts of the final product for other purposes without entrusting it to the waste recycling company. We are also minimizing the incineration of domestic wastes by introducing a separate collection system for the entire workplace.

● Ulsan Plant

In 2016, we have newly installed a waste storage facility. When bringing in waste, we submit a certificate to the person in charge to lower the possibility of illegal dumping. In the case of wastewater sludge, we converted some of the existing landfill to recycling, and we will reduce the amount of waste by recycling the entire amount.

● Yongyeon Plant

Organic sludge cannot be recycled, so the cost of landfill is too high. Organic sludge accounted for more than 90% of waste at Yongyeon Plant, so we wanted to reduce organic sludge emissions by changing the dehydrator. In addition, waste pipes generated after the process and sold to waste are reworked and reused. We are constantly searching for recycling companies, not landfills, to reduce environmental burdens.

● Gumi Plant

The Gumi plant operates a dehydration tower process to further refine wastewater discharged from the purification tower to reuse waste. The wastewater purified through the process will be re-delivered to the Gumi Plant after separate purification process. At the same time, we are endeavoring to reduce waste each department

● Changwon Plant

In accordance with the types of wastes, we are implementing systematic waste management by regulating and improving the disposal methods. We are striving for proper waste disposal through separate training and regular inspection activities for our employees and suppliers.

● Waste Discharge

(Unit : ton)

Division		2014	2015	2016
Generic Waste Generation		47,578.2	48,433.1	49,063.4
Type	liquid waste	15.3	26.4	28.2
	solid waste	47,562.9	48,406.7	49,035.2
Treatment method	incineration	2,220.9	2,601.6	3,096.0
	landfill	8,823.8	6,104.9	4,106.1
	unloading	2,598.5	978.1	0
	consignment processing	33,935.0	38,748.6	41,861.4
	Generation of specified waste	7,795.9	6,275.7	6,369.9
Type	liquid waste	5,910.0	4,280.4	4,612.7
	solid waste	1,886.3	1,995.2	1,757.2
Processing method	incineration	1,093.2	1,080.0	1,073.0
	landfill	0	0	2.9
	consignment processing	6,702.7	5,195.7	5,294.1
Waste recycling rate		27,426.6	34,507.8	35,024.0
Total waste generation		61,076.4	55,117.6	59,204.5
Waste recycling rate		63.2%	63.1%	49.5%

Air pollution and odor management

We have established our own standards that are stricter than the legal emission allowance standards set by the Ministry of Environment. At the same time, we are striving to minimize pollutant emissions during the production process by constructing air pollution control facilities in each process and exhausting systems for reducing pollutants and odor-causing substances.

● Gumi Plant

The Gumi Plant is responsible for the on-site inspection of air pollution control facilities. In addition, regular on-site training is provided to the personnel in charge to effectively manage air pollutants through the cultivation of business capabilities. In order to reduce the generation of odor, the Environmental Safety Team and the Business Division jointly work to identify and improve problems with the odor sources and regularly monitor odor discharge sites and site boundary lines.

● Changwon Plant

The Changwon Plant has commercialized the automatic absorption desorption facility (ATD) and magnesium oxide absorption facility (Veralia) for the first time in Korea by verifying the optimal prevention facility technology applicable to the production facilities where high concentrations of air pollutants are generated. Through this we manage 50% or less of stench concentration standards (1,000 times) for all facilities.

● Air Pollutant Emissions

(Unit : ton)

Division	2014	2015	2016
Nitrogen oxides (NOx)	256.0	325.0	590.4
Sulfur oxides (SOx)	87.0	206.0	176.2
Dust (PM)	64.3	58.8	52.6

● Ulsan Plant

We check the air pollution control facility once a week to confirm whether or not the facility is abnormal. We conduct self-measurement twice a month for atmospheric pollutants and odor-inducing substances to confirm whether or not we meet our own emission standards.

Water and wastewater management

All of Hyosung's business sites systematically manage water pollutants emissions through regular water quality inspections and establishment of strict internal standards that are more stringent than legal emission allowances. We are replacing old wastewater pollution prevention facilities and improving and optimizing them to remove high-concentration water pollutants and discharge them to low-concentration wastewater. In addition, we manage the amount of water used by each business site and build reuse facilities and processes through the use of reusable water.

● Yongyeon Plant

Wastewater generated by membrane filtration and treatment facilities is reused. This contributes to the improvement of water quality by supplementing the water shortage in the winter and newly added factories. In addition, we are making efforts to reduce water use by separating water according to the presence of chemicals in the production process and reusing wastewater without added chemicals. On the other hand, we are actively promoting reduction activities for pure water (DIW), filtered water (FW), drinking water (DW) and wastewater (WW). In addition, we have wastewater treatment facilities that combine sewage and wastewater generated in the production process. We set strict internal emission standards that are stricter than legal emission standards. The discharged wastewater is regularly tested for water quality and daily water quality reports are prepared to manage the amount of wastewater discharged. On the other hand, the water pollutants discharged from the Yongyeon 3 plant are transferred to the Yongyeon 2 plant equipped with wastewater treatment facilities for treatment.

● Daejeon 3 Plant

A separate water quality person is appointed to record and manage the waste water discharge log. Once a year, we regularly monitor the changes in wastewater concentration.

● Ulsan Plant

We utilize facilities to monitor real-time water quality. In the event of an abnormal situation, we respond promptly through self-analysis and rapid assessment of the situation. We set internal benchmark values for each organization, conduct self-analysis, and provide daily feedback to each process to ensure immediate response. In addition, specific harmful substances are subject to analysis by an external accredited institution on a quarterly basis.

● Jeonju Plant

Since 2015, the Jeonju Plant has reduced the use of chemicals by 80% by introducing biological treatment methods into total nitrogen (T-N), which was treated with chemicals that could cause eco-toxicity. In addition, we monitor the status of discharged wastewater by analyzing its own wastewater concentration and establish an emergency response system by linking with production departments when high concentration wastewater flows in. As a result, the average value of all items of water pollutants in the standard wastewater effluent is managed at 20% of the legal emission standard.

● Daegu Plant

For improved water quality, we are conducting pilot test once a month through chemical changes in the first chemical treatment process. We have maintained the 50ppm level, which is less than the statutory limit of 300ppm, by administering proven medicines.

● Eonyang Plant

Monthly management of water consumption and wastewater volume data is notified to the relevant departments and efficient water resources management is carried out through unit level management. In addition, we are making efforts to reduce water consumption and reduce the amount of wastewater generated by reusing cooling water, cleaning water, cleansing water, and water for fire-fighting water in recyclable processes to promote recycling of wastewater.

● Water Usage and Recycling Rate

(Unit : ton)

Division	2014	2015	2016
Water Total usage	25,387,287.0	25,070,797.0	26,159,757.0
Waterworks	806,471.6	748,751.0	710,898.0
Groundwater	65,171.0	69,793.0	79,248.0
Industrial water	24,332,974.4	24,141,373.0	25,241,861.0
Stream Water	182,670.0	110,880.0	127,750.0
Water Recycling Rate	7,213,995.0	6,357,589.0	7,164,161.0
Water Recycling Rate	28.4%	25.4%	27.4%

Water Pollutant Emissions

(Unit : ton)

Division	2014	2015	2016
Biological oxygen demand (BOD)	19.1	20.8	20.4
Chemical oxygen demand (COD)	76.8	89.3	89.7
Suspended substance (SS)	24.2	26.7	33.3
Total nitrogen (T-N)	67.6	51.5	52.9
Total phosphorus (T-P)	3.0	3.7	4.2

Ozone Depleting Substances

(Unit : kg)

Division	2014	2015	2016	
CFC	R-11	500.0	2,300.0	1,500.0
HCFC	R-123	4,172.0	4,822.0	5,122.0
	R-22	1,200.0	1,280.0	3,105.0

Amount of Environmental Protection Investments

(Unit : won)

Division	2014	2015	2016
Waste and emission treatment costs Environmental restoration costs	4,711,706,832.0	4,648,450,882.0	5,686,678,096.0
Cost for Prevention and environmental management	5,345,261,157.0	14,779,237,664.0	6,774,429,981.3
The Total Cost	10,056,967,989.0	19,427,688,546.0	12,461,108,077.3

Energy use and greenhouse gas emissions

According to the "Guidelines for GHG and Energy Goal Management and Operation, etc.," the scope of the 2016 Hyosung Sustainability Report excluded the data of sites classified as "small-scale emission sites" with annual greenhouse gas emissions of less than 3,000 tons and energy usage of less than 55 TJ. Excluding them, we report on 15 other workplaces including the headquarters. In addition, we excluded the performance of 9 business sites (Daejeon 3 part plant, Gwanghyewon, Jincheon, Munsan, Yangsan, etc.) due to the sale of packaging PU in 2014. However, we are promoting green management and green activities at all our businesses, including those not presented in this report.

Direct and Indirect Energy Usage

(Unit : TJ)

Division	2014	2015	2016
Direct and indirect energy usage	25,957.1	27,512.1	31,556.5
Direct energy amount	5,836.2	6,161.3	7,746.3
Diesel	33.2	34.0	37.0
kerosene	0.1	0.1	0.1
LNG	3,739.7	2,804.2	2,519.3
gasoline	13.6	14.4	14.4
propane	4.1	3.5	4.7
B-C oil	165.7	847.8	769.1
Off gas	1,851.3	2,427.8	4,380.4
LPG	2.9	2.6	2.7
Biogas	25.7	26.9	18.5
Indirect energy usage	20,120.8	21,350.7	23,810.2
Electricity	18,095.6	19,217.1	21,512.3
Steam	654.1	634.5	893.6
Process waste heat	413.9	403.1	227.4
Waste incinerator	957.4	1,096.0	1,176.9
Basic unit (TJ / million won)	0.351	0.562	0.552

Greenhouse Gas Emissions

(Unit : tCO₂eq)

Division	2014	2015	2016
Total Greenhouse Gas emissions	1,194,796.9	1,277,860.2	1,462,860.2
Total direct Greenhouse Gas emissions (Scpoe1)	312,297.0	341,204.1	410,905.2
Fixed combustion	284,666.9	312,699.4	184,606.4
Moving combustion	3,180.3	3,278.9	3,525.1
Process emissions	24,449.7	21,805.6	219,572.5
Waste treatment	0	3,420.1	3,201.1
Indirect Greenhouse Gas emissions (Scope 2)	882,499.9	936,656.1	1,051,955.0
Electric	878,860.2	933,329.9	1,043,515.2
steam	3,639.7	3,326.2	8,439.8
Unit cost (tCO ₂ eq / million won)	0.161	0.261	0.256

* Greenhouse gas emissions and energy usage in 2016 will be subject to government approval by March 31, 2017 after the third party verification is completed.

Major Achievements in Energy Use and Greenhouse Gas Emissions Reduction by Plant in 2016

(Unit: million won, tCO₂eq)

Workplace	Reduction target	Details of reduction action	Investment result	Greenhouse Gas reduction effect
Ulsan Plant	Spinner	Other Major Production Process Improvements	1,990	3,924.9
Yongyeon 1 Plant	Motor	Replacement with high efficiency motor	450	72.5
	Electric power use facilities	Power generation using solar cells	133.5	45.8
	Waste power generation facilities	Power generation using steam depressurization	978.8	2,281.5
Yongyeon 2 Plant	Comp turbine	Replace fossil fuel-based facilities with electricity-using facilities	0	1,192.0
	Motor	Old equipment improvement	50.0	3.0
	Process coolant feed pump	Efficient substitute use and replacement	123.0	26.8
	Pump	Use of equipment of optimum size and capacity	5	29.9
	Fruit boilers	More affordable by-product gas fuel burning expansion	30	6,919.0
Yongyeon 3 Plant	Photovoltaic power generation	Power generation using solar cell	132.5	41.6
	Photovoltaic power generation	Power generation using solar cell	105.3	34.8
Gumi 1 Plant	Use of lighting	High efficiency LED lighting equipment	90.0	177.3
	Air Dryer Improvement	Heat or Cooling Process Exhaust Air Reuse	33.0	194.7
	Electric motors	Use and replacement of efficient substitutes	45.0	112.3
Anyang Plant	Electric power use facilities	Demand control or operation schedule modification to avoid peak time	0	30.9
	Use of lighting	High efficiency LED lighting equipment	0	3.1
	Fan Cool Unit	Timer or Thermostat Installation	0	40.3
Changwon Plant	Use of lighting	High efficiency LED lighting equipment	3,260.8	2,715.0
Oksan Plant	Converting Boiler	Oil Fuel to Waste Combustion	162.0	12,246.0

Business Certification

Country	Corporation	Business / City	PU	Environmental Management	Health & Safety	Quality	
Korea	Hyosung Co., Ltd.	Ulsan	NPY	ISO 14001	KOSHA 18001	ISO 9001	
			T/C	ISO 14001		ISO 9001 ISO/TS 16949	
			Tech. Yarn	ISO 14001		ISO 9001 ISO/TS 16949	
			Aramid	ISO 14001			
		Yongyeon 1	PP/DH	ISO 14001	KOSHA 18001	ISO 9001	
			Neochem	ISO 14001			
		Yongyeon 2	TPA	ISO 14001 Green companies*	KOSHA 18001	ISO 9001 ISO/TS 16949	
			POK				
		Yongyeon 3	Film	ISO 14001		ISO 9001	
			Opt. Film	ISO 14001			
		Gumi	Spandex	ISO 14001	KOSHA 18001 NAVI**	ISO/TS 29001	
			NPY	ISO 14001 Global Recycled Standard (GRS)		ISO 9001	
			Film	ISO 14001			
		Anyang	S/C	ISO 14001		ISO 9001 ISO/TS 16949	
		Anyang	Interior			OHSAS 18001	ISO/TS 16949
		Changwon	P&I	ISO 14001		KOSHA 18001 OHSAS 18001	ISO 9001
		Sejong	P&I	ISO 14001			ISO 9001
		Daegu 1	Dyeing	Oeko-Tex® ***			
		Daejeon 1	Interior	ISO 14001			ISO 9001
		Daejeon 3	Film				ISO 9001
Jeonju	Carbon	ISO 14001			ISO 9001		
Oksan	Opt. Film	ISO 14001			ISO 9001		

* Green companies: The Ministry of Environment guides environmental management. It is not a post-management system that focuses on crackdowns but rather a system to encourage autonomous environmental improvement based on cooperation between government and business

** NAVI: Certification system for designating a workplace that meets the physical work environment and personal health resource area as a "healthy workplace" in Gumi City

*** Oeko-Tex®: A certificate issued by the TESTEX certification body in Switzerland. The product (fabric) is subjected to a hazardous substance test to certify that there is no content or below the standard value

APPENDIX

○ Principle & Policy	92
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○ About This Report	99

Principle & Policy

Hyosung Human Rights Principles

All stakeholders including Hyosung employees, customers, and local communities have the right to dignity and happiness that can not be transferred as human beings. We promise to grow together with all stakeholders through Hyosung Way, a value system of Hyosung that leads the better life of mankind based on the best technology and management capability.

Hyosung supports the UNGC principles, the OECD Guidelines for Multinational Enterprises, and the labor standards laid down by the ILO, as well as the Universal Declaration of Human Rights adopted at the UN General Assembly. In addition, we promise to comply with the standards of labor rights and working conditions of all the countries in which we operate, as well as our head office in Korea. This commitment is equally applicable to all stakeholders, including employees of Hyosung Corporation, customers, local communities, and employees of partner companies.

Principle of Human Rights

Prohibition on Discrimination	One has the right not to be subjected to unfair discrimination based on race, language, religion, nationality, disability, politics, education and age.
Fair Rewards and Opportunity Opportunities	Under fair working conditions, fair compensation is given according to individual ability and performance, and opportunities for self-development are provided.
Freedom of assembly and association	Employees have the right to freedom of association for assembly without threat of retaliation or intimidation.
Safe Working Environment	Employees have the right to enjoy a pleasant working environment so that they can work in a healthy and safe manner.
Personal privacy protection	We do not interfere with the personal information of the employee and the privacy of the family, home, and communication.
Working Hours	We guarantee working hours determined by the business country and comply with regular paid leave regulations.
Prohibition of forced and child labor	Observe the minimum employment age set by the business country, and do not be forced to work against the will of the employees.
Fair Transaction	Hyosung Co., Ltd. recognizes the partner company as an equal partnership position and does not abuse its superior position.
Community Development	Hyosung Corporation recognizes its responsibility for the development of the local community and actively invests in the development of the community.
Transparency	Provide timely information to shareholders and investors and maintain the accuracy of accounting data to ensure transparency.
Customer Information	Customer's information is recognized as valuable assets, and is required only minimal information, and takes technical and physical measures to protect information.

Safety, Health and Environment

We understand that safety, health and the environment are our top priorities for our business activities and that minimizing the environmental impacts and implementation of zero-accident workplaces is a very important factor for continuous profit maximization and growth for both companies and individuals. All employees continuously strive to comply with safety, health, and environmental policies, and we ensure that all employees understand this policy and that internal and external stakeholders are aware of this policy.

- We establish and implement safety, health, and environmental management systems to prevent casualties and loss of property, thereby achieving zero accidents, improving the environment and preventing pollution, and endeavoring to improve the health of all employees.
- We regularly review and improve the safety, health and environmental management systems and their implementation status for the continuous development of safety, health and environment.
- We minimize emissions of environmental impact substances and actively promote resource and energy savings.
- We strictly abide by all laws, regulations and agreements related to safety, health and environment.
- We increase overall credibility by continuing education and training and sharing with partners and stakeholders to effectively implement the safety, health and environmental regimes.

HYOSUNG

* This policy is the safety, health and environment policy of Ulsan plant. All business sites of Hyosung Co., Ltd. have established safety and health and environmental policies in consideration of the characteristics of production and sales items.

GRI Index

GENERAL STANDARD DISCLOSURE

Classification	G4	Indicators	Page	Note	ISO 26000
Strategy and Analysis	G4-1	Statement from the most senior decision-maker	2~3		4.7, 6.2, 7.4.2
	G4-2	Provides a description of Key impacts, risks, and opportunities	2~3		
Organizational Profile	G4-3	Report the name of the organization	2		6.3.10, 6.4.1~6.4.5, 6.8.5, 7.8
	G4-4	The primary brands, products, and services	6~17		
	G4-5	The location of the organization's headquarters	4		
	G4-6	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	4~5		
	G4-7	The nature of ownership and legal form	4, 76		
	G4-8	The markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries)	4~5		
	G4-9	Scale of the organization	4, 81		
	G4-10	Total workforce	81		
	G4-11	The percentage of total employees covered by collective bargaining agreements	82		
	G4-12	The organization's supply chain	44~53		
	G4-13	Any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	94	No serious change	
	G4-14	Whether and how the precautionary approach or principle is addressed by the organization	80~81		
	Identified Material Aspects And Boundaries	G4-15	List Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses	92~93	
G4-16		Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization	96		
G4-17		List all entities included in the organization's consolidated financial statements or equivalent documents	45		
G4-18		The process for defining the report content and the Aspect Boundaries	20~21		
G4-19		List all the material Aspects identified in the process for defining report content	20~21		
G4-20		For each material Aspect, report Aspect Boundary within the organization	20~21		
G4-21		For each material Aspect, report the Aspect Boundary outside the organization	20~21		
Stakeholder Engagement	G4-22	The effect of any restatements of information provided in previous reports, and the reasons for such restatements	98		5.3
	G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	98		
	G4-24	List of stakeholder groups engaged by the organization	20		
	G4-25	Basis for identification and selection of stakeholders with whom to engage	20		
Report Profile	G4-26	Organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group	20		7.5.3, 7.6.2
	G4-27	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	20		
	G4-28	Reporting period such as fiscal or calendar year) for information provided	About this report		
	G4-29	Date of most recent previous report (if any)	About this report		
	G4-30	Reporting cycle such as annual, biannual)	About this report		
	G4-31	Provide the contact point for questions regarding the report or its contents	About this report		
Ethics and Integrity	G4-32	Report the 'in accordance' option the organization has chosen	About this report		6.2, 7.4.3, 7.7.5
	G4-33	Report the organization's policy and current practice with regard to seeking external assurance for the report	About this report		

Classification	G4	Indicators	Page	Note	ISO 26000
Governance	G4-34	Report the governance structure of the organization, including committees of the highest governance body	76~77		4.4, 6.6.3
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	78~79		

SPECIFIC STANDARD DISCLOSURE

ECONOMIC

Classification	G4	Indicators	Page	Note	ISO 26000	Verification
Economic Performance	DMA (Disclosures on Management Approach)		22			
	EC1	Direct economic value generated and distributed	4, 81		6.8.1-6.8.2, 6.8.3, 6.8.7, 6.8.9	✓
	EC3	Coverage of the organization's defined benefit plan obligations	83		6.8.7	✓
Indirect Economic Impacts	DMA (Disclosures on Management Approach)		54			
	EC7	Development and impact of infrastructure investments and services supported	59		6.3.9, 6.8.1-6.8.2, 6.8.7, 6.8.9	✓
	EC8	Significant indirect economic impacts, including the extent of impacts	54~61		6.3.9, 6.6.6, 6.6.7, 6.7.8, 6.8.1-6.8.2, 6.8.5, 6.8.7, 6.8.9	✓

ENVIRONMENTAL

Classification	G4	Indicators	Page	Note	ISO 26000	Verification
Materials	EN1	Materials used by weight or volume	85		6.5.4	
	EN2	Percentage of materials used that are recycled input materials	85			
Energy	DMA (Disclosures on Management Approach)		62			
	EN3	Energy consumption within the organization	88		6.5.4	✓
	EN4	Energy consumption outside of the organization	88			
	EN5	Energy intensity	88			✓
	EN6	Reduction of energy consumption	65~67, 88~89		6.5.4, 6.5.5	✓
	EN7	Reductions in energy requirements of products and services	65~66			
	CRE1	Building energy intensity	N/A	N/A		✓
Water	DMA (Disclosures on Management Approach)		62			
	EN8	Total water withdrawal by source	87		6.5.4	✓
	EN9	Water sources significantly affected by withdrawal of water	95	N/A		
	EN10	Percentage and total volume of water recycled and reused	87			✓
	CRE2	Building water intensity	N/A	N/A		✓
	Emissions	DMA (Disclosures on Management Approach)		62		
EN15		Direct greenhouse gas (GHG) emissions (scope 1)	88		6.5.5	✓
EN16		Energy indirect greenhouse gas (GHG) emissions (scope 2)	88			
EN17		Other indirect greenhouse gas (GHG) emissions (scope 3)	88			✓
EN18		Greenhouse gas (GHG) emissions intensity	88			✓
EN19		Reduction of greenhouse gas (GHG) emissions	88~89			✓
EN21		Nox, Sox, and other significant air emissions	86		6.5.3	✓
CRE3		Greenhouse gas emissions intensity from buildings	N/A	N/A		✓
Effluents and Waste	DMA (Disclosures on Management Approach)		62			
	EN22	Total water discharge by quality and destination	87		6.5.3, 6.5.4	✓
	EN23	Total weight of waste by type and disposal method	86		6.5.3	✓
	EN24	Total number and volume of significant spills	95	No serious leakage	6.5.3	✓
Overall	EN31	Total environmental protection expenditures and investments by type	88		6.5.1-6.5.2	
Supplier Environmental Assessment	DMA (Disclosures on Management Approach)		44			
	EN32	Percentage of new suppliers that were screened using environmental criteria	46~47		6.3.5, 6.6.6, 7.3.1	
	EN33	significant actual and potential negative environmental impacts in the supply chain and actions taken	46~47		6.3.5, 6.6.6, 7.3.1	

SOCIAL

Classification	G4	Indicators	Page	Note	ISO 26000	Verification
Employment	DMA (Disclosures on Management Approach)		36			
	LA1	Total number and rates of new employee hires and employee turnover by age group, gender, and region	81, 83		6.4.3	✓
Occupational Health and Safety	DMA (Disclosures on Management Approach)		62			
	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	68		6.4.6	✓
	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	84			✓
	LA7	Workers with high incidence or high risk of diseases related to their occupation	70		6.4.6, 6.8.8	✓
	LA8	Health and safety topics covered in formal agreements with trade unions	67~71		6.4.6	✓
	CRE6	"Percentage of the organization operating in verified compliance with an internationally recognized health and safety management system"	N/A	N/A		✓
Training and Education	DMA (Disclosures on Management Approach)		36			
	LA9	Average hours of training per year per employee, by gender, and by employee category	38		6.4.7	✓
Diversity and Equal Opportunity	DMA (Disclosures on Management Approach)		36			
	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	81		6.2.3, 6.3.7, 6.3.10, 6.4.3	✓
Supplier Human Rights Assessment	DMA (Disclosures on Management Approach)		44			
	HR10	Percentage of new suppliers that were screened using human rights criteria	46~47		6.3.3, 6.3.4, 6.3.5, 6.6.6	✓
Product and Service Labeling	DMA (Disclosures on Management Approach)		22			
	PR5	Results of surveys measuring customer satisfaction	83			✓
	CRE8	Type and number of sustainability certification, rating and labelling schemes for new construction and redevelopment	N/A	N/A		✓

Association Membership Status

HQ/PG	Association	Note	HQ/PG	Association	Note	
Support Headquarters	Council of Korea Employers' Organizations		Textile PG	Korea Federation of Textile Industries		
	Seoul Chamber of Commerce and Industry			Korea Textile Trade Association		
	Federation of Korean Industries			Korea Chemical Fibers Association		
	American Chamber of Commerce in Korea (AMCHAM)		Industrial Materials PG	Korea Chemical Fibers Association		
	Korea Employers Federation			Chemicals PG	Korea Display Industry Association	
	Korea Economic Research Institute		Korea Semiconductor Industry Association			
	Korean Standards Association		Korea Petrochemical Industry Association			
	GWP Korea		Power & Industrial Systems PG	Korean Packaging Association		
	Korea Management Association			Korea Electric Association		
	Korea Mecenat Association		Korea Power Exchange			
	Korea-U.S. Economic Council, Inc.		Trading PG	Korea Atomic Industrial Forum		
	Korea Engineers Alliance			Korea International Trade Association		
	Finance Headquarters	Arumjigi		Construction PG	Construction Association of Korea	
		Korea Listed Companies Association			Korea Information and Communications Contractors Association	
			Korea Housing Association			
			International Contractors Association of Korea			



LRQA Independent Assurance Statement
Relating to Hyosung Corporation's Sustainability Report
for the 2016 calendar year

This Assurance Statement has been prepared for Hyosung Corporation in accordance with our contract but is intended for the readers of this Report.

Terms of engagement

Lloyd's Register Quality Assurance (LRQA) was commissioned by Hyosung Corporation to provide independent assurance on its '2016 Hyosung Sustainability Report' ("the report") against the assurance criteria below to a limited level of assurance using LRQA's verification procedure. LRQA's verification procedure is based on current best practise, is in accordance with ISAE 3000 and uses the principles of AA1000AS (2008) - inclusivity, materiality, responsiveness and reliability of performance data.

Our assurance engagement covered Hyosung Corporation's operations and activities in Korea and specifically the following requirements:

- Confirming that the report is in accordance with:
 - GRI G4's¹ reporting guidelines (core option) and Construction and Real Estate Sector Disclosures
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
 - Economic: economic performance (EC1, EC3), indirect economic impact (EC7, EC8)
 - Environmental: energy (EN3, EN5, EN6, EN7, CRE1), water (EN8, EN9, EN10, CRE2), emissions (EN15, EN16, EN18, EN19, EN20, EN21, CRE3), effluents and waste (EN22, EN23, EN24)
 - Social: employment (LA1), occupational health and safety (LA5, LA6, LA7, LA8, CRE6), training and education (LA9, LA11), diversity and equal opportunity (LA12), supplier human rights assessment (HR10), product and service labelling (PR5, CRE8)

Our assurance engagement excluded the data and information of Hyosung Corporation's suppliers, contractors and any third-parties mentioned in the report.

LRQA's responsibility is only to Hyosung Corporation. LRQA disclaims any liability or responsibility to others as explained in the end footnote. Hyosung Corporation's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of Hyosung Corporation.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that Hyosung Corporation has not, in all material respects:

- Met the requirements above
- Disclosed accurate and reliable performance data and information as all errors or omissions identified during the assurance engagement were corrected
- Covered all the issues that are important to the stakeholders and readers of this report.

The opinion expressed is formed on the basis of a limited level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing Hyosung Corporation's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through reviewing documents and associated records.
- Reviewing Hyosung Corporation's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by benchmarking reports written by Hyosung Corporation and its peers to ensure that sector specific issues were included for comparability. We also tested the filters used in determining material issues to evaluate whether Hyosung Corporation makes informed business decisions that may create opportunities that contribute towards sustainable development.

¹ <https://www.globalreporting.org>



- Auditing Hyosung Corporation's data management systems to confirm that there were no significant errors, omissions or mis-statements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification. We also spoke with those key people responsible for compiling the data and drafting the report.
- Reviewing supporting evidence made available by Hyosung Corporation at their head office.
- Checking that the GRI Content Index allows stakeholders to access sustainability indicators.

Observations

Further observations and findings, made during the assurance engagement, are:

- **Stakeholder inclusivity:**
We are not aware of any key stakeholder groups that have been excluded from Hyosung Corporation's stakeholder engagement process.
- **Materiality:**
We are not aware of any material issues concerning Hyosung Corporation's sustainability performance that have been excluded from the report. It should be noted that Hyosung Corporation has established extensive criteria for determining which issue/aspect is material and that these criteria are not biased to the company's management.
- **Responsiveness:**
Hyosung Corporation has established the human rights policy, which is presented in the report. However no specific plan or objective supporting the human rights policy has been determined yet. We believe future reports should explain the progress on human rights.
- **Reliability:**
Hyosung Corporation has developed their internal guidelines for compiling data and information on sustainability for their 2nd sustainability report. However Hyosung Corporation should ensure that these guidelines are fully understood and implemented by the people in charge of managing sustainability performance.

LRQA's standards, competence and independence

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO/IEC 17021 Conformity assessment – Requirements for bodies providing audit and certification of management systems that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants.

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

LRQA is Hyosung Corporation's verification body for PAS 2050 (Carbon Footprint). We also provide Hyosung Corporation with a range of training services related to management systems. The verification and certification assessments, together with the training, are the only work undertaken by LRQA for Hyosung Corporation and as such does not compromise our independence or impartiality.

Signed

Dated : 10 August 2017

Tae-Kyoung Kim
LRQA Lead Verifier
On behalf of Lloyd's Register Quality Assurance Limited
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LRQA reference: SEO6051048

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About This Report

Hyosung published its first Sustainability Report in 2012 to actively communicate with stakeholders and then published its second report in 2016. The 2016 Sustainability Report selects key issues of interest to our stakeholders including customers, partners, employees, and local communities. In the future, Hyosung will publish regular reports and use it as a place for interactive communication with stakeholders. In case of any modification related to the evaluation criteria and data collection scope, please refer to the bottom of the contents for the reasons for the change.

Reporting Principles

The 2016 Hyosung Sustainability Report was prepared in accordance with the GRI Global Reporting Initiative (GRI) G4 CRESO Guideline, which meets the 'Core' standard. All financial results are based on the consolidation criteria of K-IFRS: Korean International Financial Reporting Standards.

Reporting Period and Scope

The reporting period for this report is January 1, 2016 to December 31, 2016. Some important qualitative data include activity before 2015 and the first half of 2017, and quantitative data are grouped into three-year performances to identify trends. The scope of the report covers not just headquarters, but the domestic business sites of Textile, Industrial Materials, Chemical, Power & Industrial Systems, Construction and Trade PGs, including some of the activities and achievements of important overseas operations.

Verification

In order to ensure the credibility and fairness of this report, LRQA has verified this report in accordance with the AA1000 (2008) principles (inclusiveness, importance, responsiveness) and verification procedures based on ISAE 3000 data and process reliability principles to ensure reliability and fairness, and the results of the verification are contained in pages 95 through 96 of the report.

Question

If you have any questions or suggestions for improving this report, please contact us at the following address.

Hyosung CSR Team

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