

DEEP CHANGE MAKES PERFECT INNOVATION

SK innovation Sustainability Report 2018





SKenergy

SK global chemical

SK lubricants

SK incheon petrochem

SK trading international

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CEO MESSAGE



SK innovation President & CEO

Kim Joo

Dear Valued Stakeholders,

I would like to thank all of you for your love for SK innovation.

In 2018, SK innovation achieved great accomplishment in various business with the encouragement and support of our stakeholders. Above all, not only our global business's competitiveness has been strengthened, but also we have made significant progress for our new businesses. In addition, our efforts to create social values have resulted in 'DJSI World recognition for 2 consecutive years', 'Grand award in the Most Loved company', 'Grand award in Labor and management culture', and 'Presidential Certificate for Excellence in Gender Equality Employment.' From this year, we have appointed an independent director as our new chairman of the board of directors to implement transparent management centered on the board of directors. In 2019, SK innovation will communicate more actively with stakeholders and generate greater values in the following ways.

Global Growth

SK innovation drives its business model to develop into a global top company. We are expanding business investment in the battery and materials sectors to secure a new growth engine. In addition, we are strengthening our global partnerships with prominent global players through collaboration and alliance in traditional business sectors such as oil, chemicals and lubricants. SK innovation will continue to actively invest into new businesses and expand global partnerships in existing businesses to develop into a global leader.

Promote Green Innovation

Environmental issues, such as fine dust and greenhouse gases, are becoming a serious social issue and they are closely related to our business activities. SK innovation will work hard on solving environmental issues and executing solutions. To do so, we will base our strategy on the 'Environment Initiative' to promote Green Innovation. This will not only solve environmental issues but also serve as an opportunity to create a new business model.

Bring Happiness to Stakeholders by Spreading Social Values

SK innovation is certain that pursuing the well-being of stakeholders will foster stability and growth for the company. Therefore, creating social values are as important as economic values for us. We are fiercely deliberating on identifying the needs of our stakeholders and these efforts will achieve the loyalty and well-being of all our stakeholders.

SK innovation will practice sustainability management in a systematic way for continued stability and growth, which will create stakeholder value as well as play a critical role in social and economic growth. We will ultimately become a company that contributes to the well-being of humanity.

We ask for your enduring support and affection so that our efforts can generate more happiness for all our stakeholders.

Thank You.

CHALLENGE FOR NEW INNOVATION

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SK INNOVATION

SK innovation was founded as the first oil and chemical company in Korea, and led the economic growth of this nation. We are growing into a global energy and chemicals company representing Korea with our oil development, refining, chemicals, lubricants businesses to future energy business.

Business fields
E&P, battery, materials
President & CEO
Kim Jun

CHALLENGE FOR NEW INNOVATION



Oklahoma Oil & Gas Development Site



Battery production process



LIBS production process

DIFFERENTIATED ENERGY MARKET LEADER



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Ulsan Complex

SK ENERGY

As an energy company that creates happiness for customers and society, SK energy will build a better society through creation of both economic and social values.

Business field
Petroleum products
President & CEO
Cho Kyong Mok

TOTAL GLOBAL CHEMICAL LEADER

12

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SK GLOBAL CHEMICAL

SK global chemical is constantly changing to build the best chemicals portfolio.
We are creating a new future for the chemical industry for the customers and the market.

Business field
Petrochemical products
President & CEO
Na Kyung Soo

DRIVING FORCES OF GROWTH



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SK LUBRICANTS

As the No. 1 lubricant brand in Korea, SK lubricants seeks to become a world leading company by pursuing change and innovation.

Business field
Base oil and lubricants
President & CEO
Jee Dong Seob

PROMISE FOR TOMORROW'S GROWTH

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SK INCHEON PETROCHEM

SK incheon petrochem aims to become a global top oil and petrochemical company equipped with the best efficiency and productivity through strict production control and environment-oriented management.

Business field
Oil and petrochemical products
President & CEO
Choi Nam Kyu

VALUE TRANSFORMATION FOR THE NEXT



SK TRADING INTERNATIONAL

SK trading international will grow from being the only energy trading company in Korea into an unrivaled global top trading company.

Business field
Trading of crude oil and petroleum products
President & CEO
Suh Sok Won

SK INNOVATION



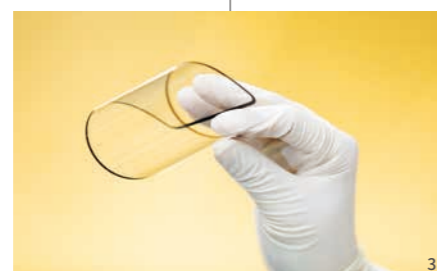
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SK innovation is Korea's leading company in energy and petrochemicals with 5 subsidiaries; SK energy, SK global chemical, SK lubricants, SK incheon petrochem and SK trading international as well as our own business sectors in E&P, battery and materials. We have achieved building the entire vertical value chain in the petroleum and chemicals industry with our businesses including exploration and development of petroleum to producing petrochemical products. SK innovation is also investing in battery and materials to create new drivers for growth. SK innovation will actively expand into the global market to achieve sustainable growth and will go beyond pursuing financial profit to pursuing the happiness of the entire society.



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- 1. Electric car battery
- 2. Jeungpyeong plant
- 3. FCW (Flexible Cover Window)

E&P (Exploration and Production) Business

E&P business is defined as a series of business activities that involve onshore and offshore exploration to develop and produce crude oil and natural gas. SK innovation currently participates in 13 production and 4 LNG projects globally. As of 2018, our E&P business is producing 53,000 barrels on a daily basis, and holds 520 million barrels of proved reserves – amount which can sustain the entire Korean population up to 6 months.

Business Overview

Production Blocks

Country	Block	Year of Participation
Peru	8	1996
	88	2000
	56	2004
Vietnam	15-1	1998
USA	SK Plymouth	2014
	SK Permian	2014
	SK Nemaha	2018
Libya	NC-174	2000

Exploration Blocks

Country	Block	Year of Participation
China	17/03	2015
	17/08	2017
Vietnam	15-1/05	2007
	123	2008
Australia	WA-34R	1998

LNG

Country	Projects	Year of Participation
Peru	Peru LNG	2003
Yemen	Yemen LNG	1997
Oman	Oman LNG	1996
Qatar	Ras Laffan LNG	1999

Major Business Activities

Peru

Following our first barrels from Block 8 in 1996, Block 88 and 56 began to contribute to our total production in 2004 and 2008. With the inauguration of Peru LNG plant in 2010, SK innovation vertically integrated LNG value chain in Peru. Currently, Peru projects constitute the biggest source of revenue and production of our E&P business.

Vietnam

SK innovation has been producing oil and gas from Block 15-1 since 2003. As of 2019, SK innovation is gearing up to further expand our business through the development of Block 15-1/05.

U.S.

Since a series of asset acquisitions in 2014, SK innovation has been accumulating operational expertise in the unconventional oil and gas. Building on this momentum, SK innovation made additional acquisition in 2018 to expand our presence in the industry.

China

In 2015, SK innovation became the first Korean company with operatorship to explore in South China Sea. In 2017, SK innovation obtained operatorship in Block 17/08 and 17/03. Since then, 17/03 made an oil discovery and the process of building a production platform is ongoing.

Major Sustainability Activities and Performance

Creating social value for local communities

In Peru, SK innovation currently operates a social enterprise known as Prosynergy to aid Peruvian farmers to be more self-sustainable. Rather than providing a direct economic aid, we focus on education that endures - such as agriculture training – to improve social sustainability. Due to our efforts, average household income for farmers is growing every year. In addition, we are making investments in our Oklahoma sites to reduce air, soil and water pollution in order to establish a sustainable business culture.

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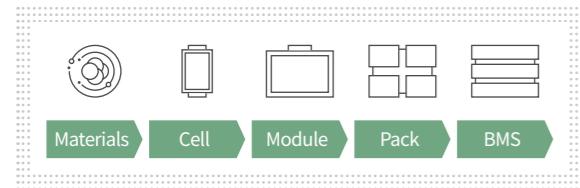
Battery Business

SK innovation produces rechargeable batteries for automobiles and ESS. We continue to conduct R&D for batteries in line with the growth of demand for electric vehicles and technology trends. We put safety as our number one priority and continue to advance technology to achieve high-speed charging and long driving distance.

SK innovation is oriented towards manufacturing eco-friendly batteries by developing high-efficient, high-storage lithium-ion batteries. The manufactured batteries are installed in electric vehicles which plays a vital role in minimizing CO₂ emission. Furthermore, we are focusing our efforts in providing secure energy, grid stability and developing a renewable energy integrated energy storage system.

Business Overview

Battery cell is the basic component of the battery for electric vehicles, which is formed into a cluster that becomes a module. The modules being supplied to the customers are built according to the customer's battery pack specifications.



BEV battery

BEV requires high-energy density batteries which translates into longer driving distance per charge. SK innovation is developing a battery that has long life based on safety to meet customer needs.

PHEV battery

The Plug-in Hybrid Electric Vehicle battery is a substitute for the engine when driving short distances. SK innovation is strengthening its competitiveness in technology in order to respond to various types of xEV.

ESS

Out of the many applications, SK innovation is focusing on utility and commercial application for ESS. SK innovation's ESS provides grid stability, standardized production of electricity through peak shift and reduces maximum load to achieve stable operation.

Major Business Activities

The SK innovation battery business provides batteries to the world based on our unique high-energy density and high-output technology. We are expanding the number of production sites in order to meet the growing global demand.

Construction of battery plant in Changzhou, China

Together with our joint venture partners in China, BAIC motor and Beijing Electronics Holding, we began building a production plant for electric batteries in a 300,000m² lot in Changzhou Jintan Economic Development Zone located in Jiangsu province, China. We will begin mass production in early 2020.

Construction of battery plant in Georgia, USA

SK innovation is building a battery plant for electric vehicles in the US, which is a highly competitive ground for the global automobile market. We have decided to invest USD 1.67 billion to build a battery plant with an initial annual production capacity of 9.8GWh in Commerce, Jackson County, Georgia. We began construction starting in 2019, aiming to achieve mass production in 2022.

Announcement to invest in the 2nd battery plant in Komárom, Hungary

In early 2019, BOD of SK innovation decided to invest 750 million euro to expand the battery plant in Komárom, Hungary. The second plant in Hungary will be 115,702 m² in size. 430,000m² of the lot that we obtained from the city of Komárom will be utilized for the construction. We commenced building in March 2019 and we are aiming for mass production from early 2022.

Major Sustainability Activities and Performance

Investing in the local community of Georgia

SK innovation has conducted philanthropic activities to contribute to the growth of local community in Georgia, USA along with the construction of our battery plant. We donated USD 120,000 to the local community. The funds have been provided to the education projects under the local community. We plan to obtain additional matching grants for education related donations for the upcoming 20 years and will work in many other ways to improve the community.

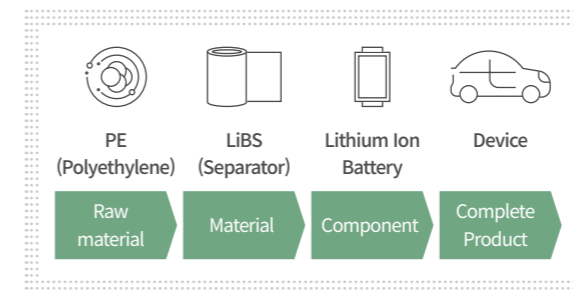
Materials Business

The materials business of SK innovation is composed of LiBS and FCW. LiBS (Lithium-ion Battery Separator) is the core material for lithium-ion batteries. It blocks direct contact of the anode and cathode and provides a pathway for lithium-ion. LiBS is continuously developing in step with the growth of the battery market. FCW (Flexible Cover Window) is a core material that substitutes glass on flexible displays such as foldable phones. It is composed of a PI film and hard-coat and we forecast that the FCW will lead the fast growth of the display market, which is pursuing changes in form factors.

Business Overview

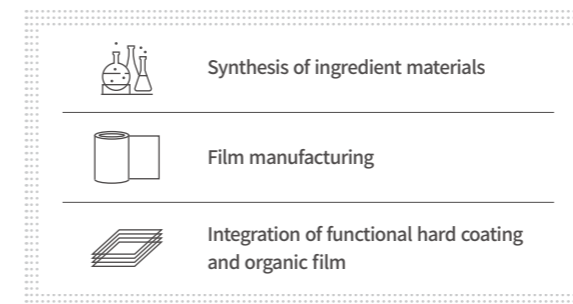
LiBS

In 2004, we developed our unique LiBS production technology, the first company in Korea, and the third in the world. We were the first in the world to complete our serial-production method in 2007. We currently produce top global quality LiBS with our technology which has a competitive edge over our competitors. This includes technologies such as 5 μm thin-film production, also first in the world, as well as commercializing a simultaneous two-side coating method.



FCW

Our FCW business provides a total solution for FCW production such as synthesizing base material for transparent PI films and hard-coat, creating transparent PI film and functional coating technology.



Major Business Activities

Expanding LiBS plant in Korea and establishing global production base

We currently operate 11 production lines in Jeungpyeong and Cheongju. We are building two additional lines in Jeungpyeong with the goal to begin mass production by the end of 2019. We have four production lines for our internally developed CCS (Ceramic Coating Separator) which includes production lines which has the simultaneous double coating function. In addition, we plan to invest in building a production base in Changzhou, China and Silesia Province, Poland to meet the growing demands of China and Europe, the two major markets with the highest growth in the battery market for electric cars.

Commercializing FCW

We anticipate strong growth in the foldable display market. In response, we plan to complete construction of our demo plant for transparent PI film in Q1 2019. We are also building a commercial line with the goal to start operation in the fourth quarter of 2019.

Major Sustainability Activities and Performance

Investment in SHE and energy management

Materials business has invested approximately KRW 10.5 billion to decrease wasting resources and harmful products to improve the production process for environment-focused equipment such as oil, dust and solvent absorbers. We are also improving our SHE (Safety·Health·Environment) management standards through continuous investment in safety and health.

SK ENERGY

Due to the slow global economic growth and uncertainty in oil prices and oil product market, SK energy expects that competition within the region will become fiercer than ever. Uncertainty in oil prices and oil product market conditions, we expect that competition will become fiercer. SK energy is focusing its entire capacity on innovation of our business structure to secure profits and future growth regardless of the business environment. As part of these efforts, SK energy is improving management efficiency in the domestic oil distribution market, building networks with prominent global business partners and expanding business operations into the global market. We are also driving towards a business model innovation to create social values. In particular, we contribute to improving air quality and residential environment of local communities by investing in facilities to minimize pollution in the Ulsan Complex. In addition, we produce environment-friendly, functional asphalt that we internally developed to cut harmful wastes and improve driving conditions. SK energy will continue to innovate to become more competitive, establish shared infrastructure, create social value, and achieve global growth, to become the Top Tier Energy Company in the Asia Pacific region.



1. SK energy gas station in Bakseokgogae
2. Premium asphalt
3. Ulsan Complex



Business Overview

Petroleum business

As Korea's No. 1 oil refinery, SK energy supplies petroleum products in Korea and overseas through its world-class Ulsan Complex. Moreover, the company has strengthened the speed and flexibility of the value chain in order to take preemptive action against uncertainties in the business environment. Also, as the No.1 oil business in Korea, we conduct diverse marketing projects to improve our customer value and social value. In particular, Netruck, our comprehensive solution project to improve the quality of life for freight drivers, provides a unique differentiated service to our customers.



Fuel
Gasoline (regular-premium), Diesel, Kerosene, Aviation fuel

LPG business

In the LPG business, SK energy boosts customer loyalty by introducing a differentiated retail customer care program with the aim of reinforcing long-term competitiveness and securing a stable business foundation. Also, by strengthening CRM (Customer Relationship Management) marketing at LPG refilling stations, we are boosting our brand value for end-users as well as enhancing our network competitiveness. The termination of the LPG usage limit in March 2019 is anticipated to bring a boost in demand and we will continue to improve our marketing capabilities for the stable growth of our LPG business and increase profits.



LPG
LPG

Specialized products business

Our portfolio includes outstanding products such as Superphalt (PMA, polymer modified asphalt), which we internally developed, commercialized and patented for the first time as a Korean oil company as well as premium asphalt that is environmentally friendly with specialized functions such as mesothermic asphalt which prevents potholes. In 2018, we provided 2.17 million tons of asphalt to the market (0.57 million tons in Korea, 1.6 million tons to the global market) which continued to strengthen our reputation as the market leader.



Special products
Premium Asphalt, Regular Asphalt, Sulfur, Slurry oil

Major Sustainability Activities and Performance

Declaration of Asphalt Green Innovation 2030

SK energy has declared Green Innovation 2030 to transform the domestic asphalt market paradigm into a green and function-based perspective. By 2030, SK energy will transform all asphalt products into environment-friendly and function-focused products by developing core technology and products, and industry cooperation.

Major characteristics of our environment-friendly, functional asphalt products include mesothermic packaging to minimize harmful substances such as fine dust, superior water resistance and regeneration. There are three main product lines; premium asphalt (mesothermic, water resistant), polymer modified asphalt (high water supply, low noise pollution) and renewable asphalt (reuse of asphalt concrete waste). By developing and producing green and functional asphalt products, SK energy plans to create social value covering various scopes such as greatly improving air and living environment, preventing traffic accidents by enhancing driving conditions and growing in harmony with suppliers. Through asphalt Green Innovation 2030, SK energy will extend our social values by pioneering development and manufacture of environment-friendly products through technology leadership and innovative strategies based on environmental initiatives.

Partnership-based global expansion

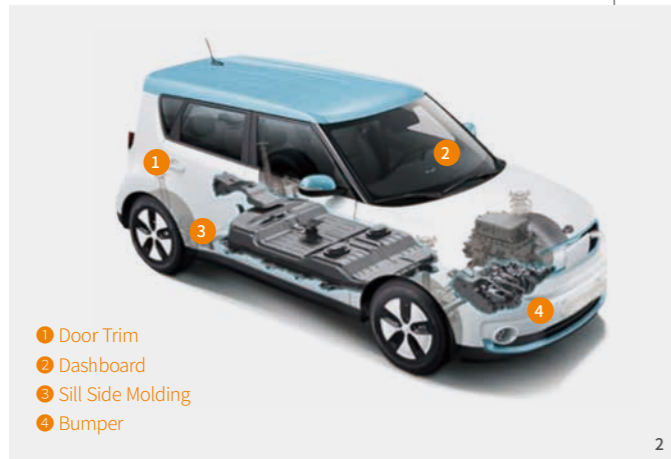
SK energy intends to enter global markets where demand in oil will increase along with high economic growth. We are building various collaborative models for harmonious growth with local partners by building partnerships with companies in promising regions based on our company's marketing and refining capabilities.

SK energy sees the Southeast Asian market as a great potential for growth. In 2018, SK energy acquired 5.23% of shares of PetroVietnam Oil to become the second major shareholder after PVN (PetroVietnam). PV Oil is a subsidiary of PVN, the biggest state-owned company in Vietnam. It operates service stations and provides oil products nationwide in Vietnam, ranking number two in domestic market share. Furthermore, SK energy also entered into the Netruck House joint venture with SNP (Saigon Newport), Vietnam's biggest port and logistics company. Since 2006, SK energy has been improving the work environment for freight drivers in Korea through the Netruck House business model as well as providing parking and maintenance infrastructure at major distribution points. We will apply our business model to match the market environment in Vietnam to prevent illegal parking and traffic problems in the port regions in Vietnam as well as improve the infrastructure for logistics.

SK GLOBAL CHEMICAL



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- 1. Ulsan Complex
- 2. High-crystalline polypropylene for interior and exterior materials (HCPP)
- 3. High-functional packaging material

SK global chemical is driving its global growth based on operations in China as well as securing competitiveness in the technology market. SK global chemical is strengthening its business portfolio by focusing on packaging and automotive materials through global M&A. We also provide a differentiated solution through customer-based marketing and establishing a TS&D (Technical Service & Development) center in China. Based on these efforts, we will respond to various demands like down-gauging material for our packaging customers or making parts lighter for our automotive customers in order to provide the best solution. In addition, we possess world-class operational excellence in our aromatics, olefin and polymer, sectors we are actively expanding globally through partnerships with major global players. Furthermore, we are creating social value by strengthening collaboration with partners or creating a green plastic ecology. SK global chemical will continue to grow into a global chemical company that provides solutions to our customers and creates maximum value.



• **PVDC:** barrier film material that is a remarkable barrier to water and oxygen, and specialized in meat packaging

• **EAA:** Adheres well to metal, used as packaging adhesive

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Business Overview

Packaging

In 2017, we acquired the EAA (Ethylene Acrylic Acid) business and PVDC (Poly Vinylidene Chloride) business from the American chemicals company, Dow. This step brought us closer to become a specialist chemical company for global packaging materials. These materials are the core in creating multi-layer packaging films, an industry which has a high barrier to entry in terms of technology and will grow continuously as will China and new markets. We plan to grow into a major global chemical company with outstanding packaging materials by developing core technology for high-functional packaging materials, which can serve as the driver of growth as well as increase strategic investment.

Automotive

In step with the trend of lighter automobiles and electric cars, we are strengthening our portfolio around automotive materials based on HCPP (High Crystallinity Polypropylene), POE (Polyolefin Elastomer) and EPDM (Ethylene Propylene Diene Monomer). In particular, we have the top market share of HCPP in Korea and China based on our premium quality. We provide optimal solutions for diverse customers through ever-improving technology.

Aromatics

SK global chemical produces and distributes various aromatics products such as paraxylene and benzene which are the raw materials for daily necessities, home appliances, construction and textiles. In 2014, we established Ulsan Aromatics Co. (UAC) with the number one energy company in Japan, JXTG. Through these kinds of investments, we have expanded our business and became a market leader in paraxylene, for which SK innovation affiliates possess an annual production capacity of 3 million tons.

Olefin and polymer

SK global chemical was the first in Korea to operate NCC (Naphtha Cracking Center) in 1972 and now has an annual ethylene production capacity of 860,000 tons. In addition, we founded Sinopec-SK Wuhan Petrochemical in Wuhan, China as a joint venture with Sinopec China in 2013 where we currently produce 800,000 tons of ethylene per year. We have also established a specialized production system for LLDPE (Linear low-density polyethylene), HDPE (High-density polyethylene) and PP (Polypropylene) where we produce more than 1.3 million tons of polymer products annually. We also produce Nexlene™, a high-functional polyethylene material in partnership with SABIC, Saudi Arabia based on our metallocene

catalyst technology which we internally developed in 2015. We will achieve a stable supply of core materials for petrochemical products as well as conduct end-customer marketing by providing various technical support and information.

Performance chemical

SK global chemical produces performance chemicals which are used in various fields such as construction, medical, agriculture and electronics. Our portfolio includes diverse products such as High Purity Normal Heptane (medical purpose) which has the number one market share in the world and 1,4-Butanediol. We are also trying to minimize environmentally harmful substances by developing cyclopentane for use as a foaming agent or creating Clean-7, a substitute for toxic substances. We create personalized products for customers and improve support for applied technology based on our marketing network and the technology know-how we have built up over the past 30 years.

Major Sustainability Activities and Performance

Creation of green plastic ecology

SK global chemical held the 'Win-win Social Value Creation Agreement for Green Plastic Ecology' ceremony with government organizations, research centers and other plastic-related entities to tackle the plastic problem harming the environment. Through these efforts, we are leading the path to a green plastic ecology through three Rs: Reduce, Replace and Recycle. We will also conduct projects in various fields such as creating lighter cars, packaging down-gauging and developing modified asphalts using plastic waste.

Development of plastics for lighter cars

SK global chemical developed a high-functional plastic which can drastically decrease the amount of plastic used in the interior and exterior of automobiles. The new high crystallinity polypropylene cuts 10% of plastic use compared to general plastics and improves fuel efficiency and decreases carbon emissions, creating social value.

6 consecutive years as Top Shared Growth Index

In 2018, we obtained the highest credit rate for the 6th consecutive year in the Shared Growth Index. Selected as the top honorary company, SK global chemical has created a fund for shared growth to improve the flow of capital for suppliers and also holds 'SK Job Fair for Suppliers for Shared Growth' to solve problems that small and medium companies have when employing top talent. We will continue to deliver real value to our partners and create ecology with a positive cycle of social values.

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SK LUBRICANTS



SK lubricants has gradually expanded its global presence, resulting in exports of high-quality lubricant products to more than 50 countries. In addition, we have built base-oil production facilities in Europe and Asia through joint ventures with global oil companies to underscore our position as a leader in the global premium base-oil market, as well as to strengthen marketing competitiveness targeting major clients. Premium lube oil SK ZIC, the company's leading brand in the lubricants business, has solidified itself as the No. 1 lubricant brand in Korea, by ranking top in the brand power survey for twenty one consecutive years, and ranked No.1 lubricant brand in Korea. In addition, ZIC was recognized internationally by receiving the top-quality levels from two major quality assessment institutions: American Petroleum Institute (API) and International Lubricants Standardization and Approval Committee (ILSAC). In particular, a new regulation on the environment is driving a growing demand for lubricants. To this end, we will expand our global market including China and Russia through diverse partnerships and thus accelerate company growth.

1. Lubricant
2. Spain Cartagena lubricant oil plant
3. SK ZIC products



Business Overview

Base oil business

SK lubricants began operation of its first VHVI (Very-High Viscosity Index) base oil plant in 1995. Currently the company's Group III global base-oil market share is estimated to be 39.4%. The company will continue to proactively invest and build capacity to solidify its position as the Global No. 1 Group III Player.

Lubricant oil business

SK ZIC has firmly positioned itself as the No. 1 lubricant product in Korea, by ranking No. 1 in the brand power survey for twenty one consecutive years. In addition, we are growing into a global brand by expanding our supply base to global automobile manufacturers, strengthening marketing networks and gaining recognition for our technology. We are accelerating growth in various markets through customized marketing and localization strategies. To meet the growing demand for high-quality lubricants, we built an independent lubricants plant in Shenzhen, China. Meanwhile, we are simultaneously pursuing economic and social values by improving fuel efficiency and decreasing fine dust through internally developed technology to provide more environment-friendly products. We are also securing the basis for sustainable growth by developing and supplying lubricants for electric cars.



Major Business Activities

Diversification of product portfolio

SK lubricants established a joint venture model with global partners to enhance our production capability. We provide a stable supply of base oil and base oil products to customers based on our efficient logistics system which integrates production and sales points. In addition, we have increased our sales of High-end Group III Plus base oil product to enhance product functions and improve competitiveness. We will launch our high-functional base oil products (YUBASE Alpha, YUBASE 6 plus) to meet the new trends along with stronger marketing to solidify our reputation as a leading producer of base oil products.

Differentiated market strategy by region

We achieved rapid growth in the lubricants market, the global core market, through a strategy differentiated by market. In particular, SK ZIC was selected for the engine oil category for the top brand certification in Russia (Narodnaya Marka) and gained recognition from local customers for its high quality. In addition, we expanded our share in the premium market by launching a top-tier product from German technology. The lubricants business is our driver for future generations to come. We are actively pursuing partnerships with local companies in countries with high-growth potential as well as establishing new distribution channels to build a base for accelerated growth.

Major Sustainability Activities and Performance

Expanding engine oil market for environment-friendly cars

The environmental regulations are growing stricter in the U.S. and Europe respectively, so the lubricants market trends are rapidly changing. Demand is increasing for high-quality, environment-friendly products and a lubricants market for electric cars has formed. Low viscosity lubricants are becoming a necessity for automobile manufacturers. In turn, this is leading to a growing demand for Group III premium base oil which is a core ingredient to produce environment-friendly, low-viscosity lubricants. SK lubricants is expanding its production capacity to become a stable supplier. In addition to expanding production capacity with existing joint-venture partners, we are building a collaboration model with new partners to take a step further. In particular, we will continue to collaborate with diesel engine producers, lubricants manufacturers and additive producers to drive demand for environment-friendly oil for commercial vehicle which is created with Group III base oil.

Expanding green product portfolio

As many automobile manufacturers are speeding up the development of electric cars including high-fuel efficiency engines to meet stronger environment regulations, the lubricants market trend is changing rapidly. Demand for high-quality, environment-friendly products has grown to form a lubricants market for electric cars. In response, SK lubricants is establishing low-viscosity products to improve fuel efficiency and conducting customer-based marketing to expand the market for green lubricants. In addition, we are pioneers in building and expanding the lubricants market for electric cars. We are closely collaborating with automobile manufacturers to develop future-generation lubricants for electric cars. SK lubricants will establish a market for environment-friendly products, lead this market and actively respond to the market for electric cars to secure sustainable future growth and also contribute to creating environment values.

SK INCHEON PETROCHEM



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- 1. SK incheon petrochem
- 2. Aviation fuel supply
- 3. SK incheon petrochem



SK incheon petrochem has grown into one of the top Korean energy and petrochemical companies over the past half century, as Korea has successfully developed its industries. In 2014, we invested KRW 1.6 trillion to expand production with enhanced facilities that could produce condensate-based high-value-added products such as paraxylene (PX), which is the raw material used in PET plastic bottles and synthetic fibers. In addition, SK incheon petrochem will continue to become the most productive company in Korea through fast and flexible decision-making processes and decisive action to enhance competitiveness and production optimization.



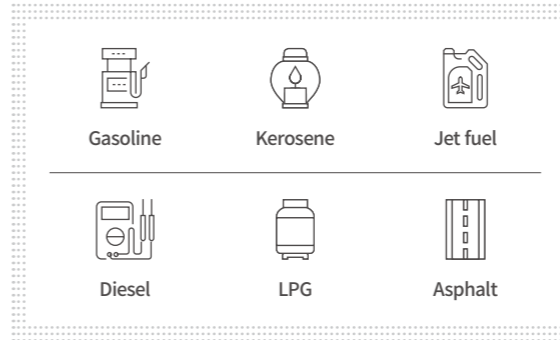
Business Overview

Petroleum business

SK incheon petrochem practices its management philosophy of 'customer satisfaction' and 'quality first' by providing eco-friendly, high-quality products by improving its production facilities and precision and continuing technological innovation.

Process | Atmospheric distillation, gas recovery unit, hydrogen desulfurization, vacuum distillation, and sulfur recovery process

Major Products

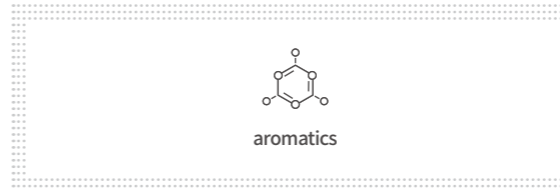


Petrochemicals business

SK incheon petrochem uses naphtha derived from condensate or the refining process to produce high-value-added petrochemical products, such as PX (Paraxylene) via naphtha catalytic reforming processes. This creates a stable profit base for the company, which enhances the competitiveness of the business.

Process | Naphtha reforming process unit, BTX unit, PX unit

Major Products



Major Business Activities

Stable base for growth

SK incheon petrochem has established stable groundwork for growth by diversifying crude oil supply and innovating production efficiency. In particular, we have diversified our crude oil supply to regions other than the Middle East such as North Europe, Russia, Africa and the US. As a result, we expanded our feed flexibility by injecting variables such as condensate, light crude oil, high-sulfur crude oil or naphtha depending on the market situation.

Improving credit rating

SK incheon petrochem has received an AA-(stable) credit rating based on our healthy financial structure from Korea Ratings, NICE Investors Service and Korea Investors Service.

Major Sustainability Activities and Performance

CSR platform to contribute to the local community

We believe that it is difficult for a single company, organization or institution to solve social problems in the local community. SK incheon petrochem pursues a 'Social Contribution Innovation Model' to share infrastructure and capability with the community. As part of this practice, we held the 'Darak Darak (the more the merrier)' program where members of organizations and groups that have engaged in many social philanthropic acts with us had a chance to share thoughts and build rapport. Based on these acts, we will build a social philanthropy platform for local communities where more stakeholders can participate and cooperate in social problems. Ultimately, we will establish a positive cycle that continues to create social values.

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SK TRADING INTERNATIONAL

SK trading international is facing the need to improve and continue the company's unique competitiveness with the advent of new environmental policies and diversifying product specifications as well as importers improving self-sufficiency and increased exports from China and India. In response, SK trading international is building a differentiated global trading business model based on a high-tech, risk-management system. We monitor the market on a real-time basis to trade crude oil and petroleum products under the best terms and conditions. We will build a global trading platform based on unique competitiveness such as establishing new business models based on strategic partnerships by optimizing use of SK's tangible and intangible assets to react to changes in the oil market.



1



2



3

1. Crude oil import and export ship
2. Overseas business development and trading
3. Marine blending business

Business Overview

SK trading international holds the global trading platform for SK innovation. We are in charge of importing and exporting oil products from SK energy and SK incheon petrochem as well as supplying naphtha to SK global chemical. We have taken a step beyond simple imports and exports. We develop new business as well as engage in trading and marketing in international sites through 3 of our offices in the US, Europe and Singapore as well as our Dubai branch. Based on our global network, we execute the entire trading process from selecting the optimal oil type, contracting, transporting and making payment in a more effective way.

Major Business Activities

SK trading international is improving its specialization in the trading market by transforming and innovating to become a global top trading company based on unique competitive capabilities. We are discovering new opportunities by utilizing storage and establishing partnerships with global trading companies in major trading hubs. Our continued efforts in building a sustainable trading model is bringing us sufficient trading volume. In addition, we are gradually strengthening and expanding our trading platform by using our market forecasting capabilities, real market intelligence and systematic and scientific analytics. Furthermore, we are diversifying suppliers of resources such as crude oil and naphtha to respond flexibly to changes in the global oil market. Also, we have internally built a comprehensive risk management system to support the trading business to improve our risk-management capability and meet changes in the business environment.

Major Sustainability Activities and Performance

Lower sulfur content in gasoline exports

The gasoline sulfur content standard of several developing countries in Southeast Asia is quite low compared to developed countries. Thus, developing countries may receive products with higher sulfur content which causes air pollution.

SK trading international is collaborating with SK energy to strengthen our internal standards in sulfur content in our gasoline exports to Southeast Asia. In this way, we are doing our best to protect the air of developing countries.

Reducing pollutants during transportation

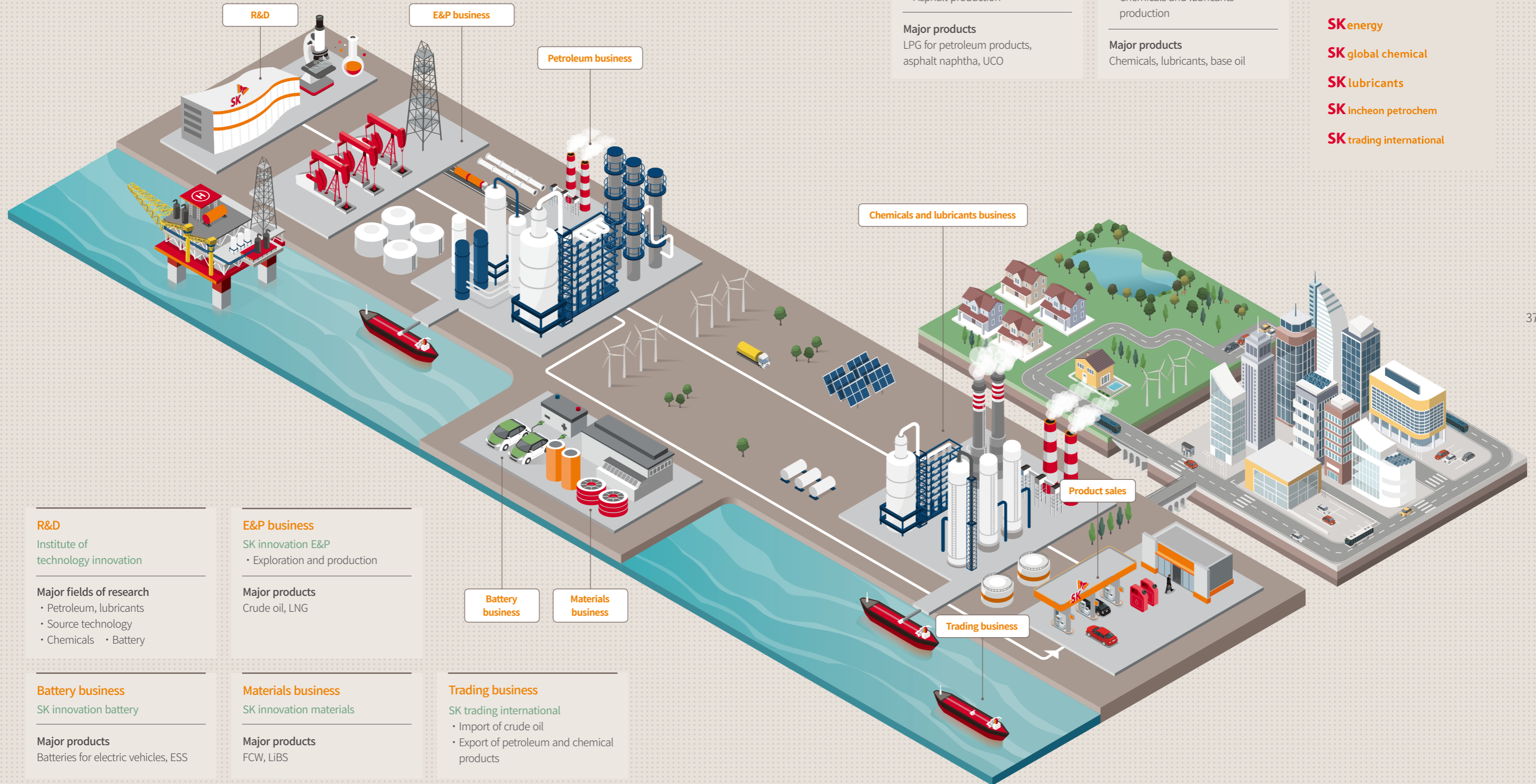
SK trading international is in charge of buying and purchasing raw materials and petroleum products along the entire value chain of SK innovation. We are actively trading with third parties as well. Since we engage in international trading, we are in charge of product shipping where we are minimizing pollutants during the transportation process in various methods. Rather than just complying with strengthened global regulations such as IMO 2020¹⁾, we are creating social value through environmental programs such as supporting installations of equipment to decrease harmful substances.

1) A new regulation from the International Maritime Organization (IMO) where a new 0.5% global sulphur cap on fuel content will be enforced 2020, lowered from the present 3.5% limit

SUSTAINABILITY STRATEGY

SK innovation is a leading player in traditional oil developing, oil refinery, chemicals and lubricants, aiming to achieve energy independence and economic growth for Korea. In addition, we are enhancing competitiveness in existing businesses in step with the rapid changes and technological advances as well as investing in sectors that will drive future growth such as electric car batteries, materials and chemicals. Through continued eco-friendly investments for our future generations, we will become a company loved by all people.

BUSINESS VALUE CHAIN



Petroleum business
 SK energy, SK incheon petrochem
 • Oil refining process
 • LPG production
 • Asphalt production

Major products
 LPG for petroleum products,
 asphalt naphtha, UCO

Chemicals and lubricants business
 SK global chemical, SK Lubricants,
 SK incheon petrochem
 • Chemicals and lubricants
 production

Major products
 Chemicals, lubricants, base oil

SK innovation
 E&P, battery, materials business

- SKenergy**
- SK global chemical**
- SK lubricants**
- SK incheon petrochem**
- SK trading international**

R&D
 Institute of
 technology innovation

Major fields of research
 • Petroleum, lubricants
 • Source technology
 • Chemicals • Battery

E&P business
 SK innovation E&P
 • Exploration and production

Major products
 Crude oil, LNG

Battery business

Materials business

Battery business
 SK innovation battery

Major products
 Batteries for electric vehicles, ESS

Materials business
 SK innovation materials

Major products
 FCW, LiBS

Trading business
 SK trading international
 • Import of crude oil
 • Export of petroleum and chemical
 products

Chemicals and lubricants business

Product sales

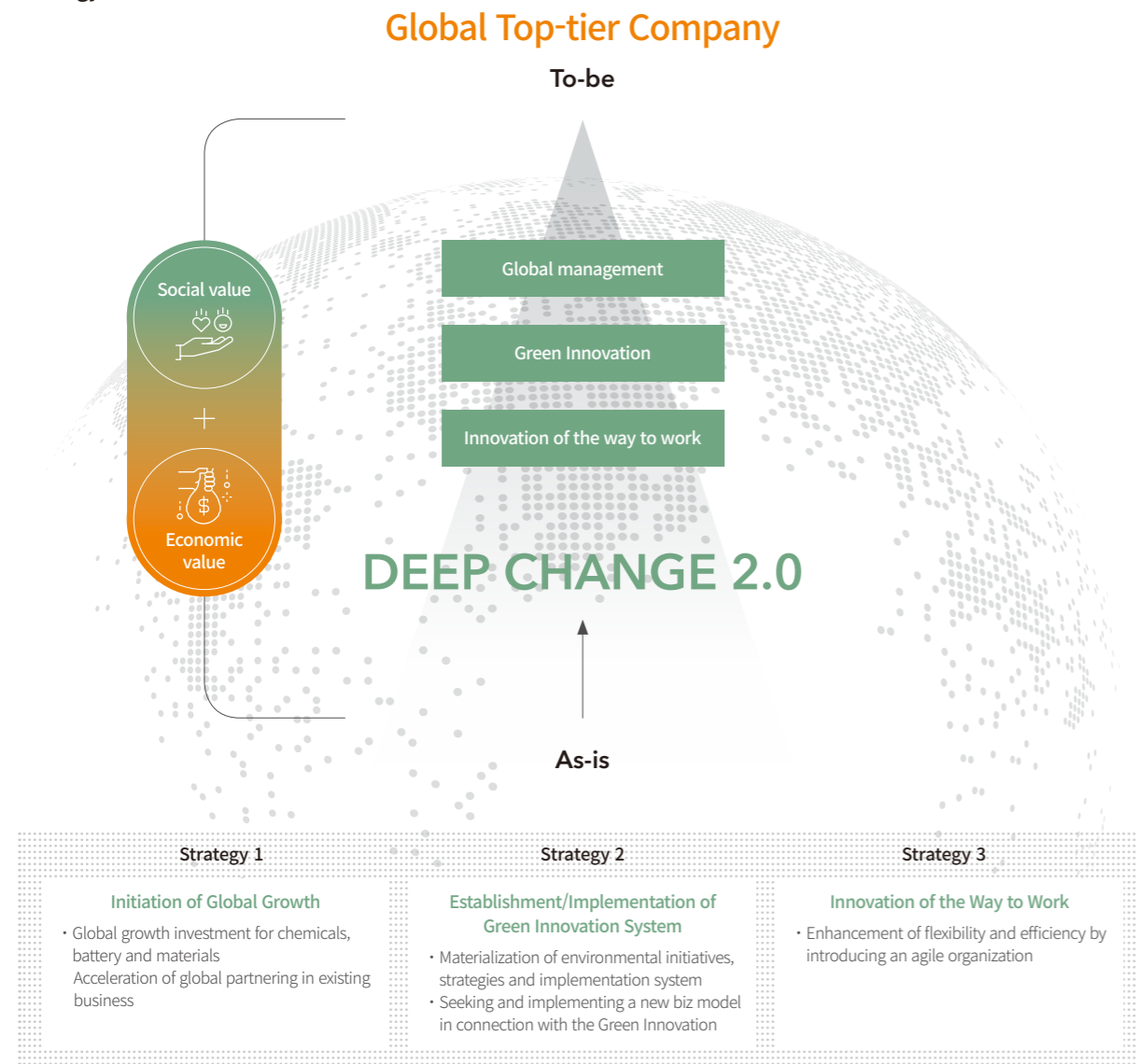
Trading business

OUR STRATEGY

Deep Change 2.0

With unpredictable fluctuation in the traditional petrochemical industry and Fourth Industrial Revolution, the uncertainty of the business environment has increased. Under these circumstances, it is necessary to set a strategic direction based on selection and concentration and to seek a new growth option. Thus, SK innovation not only enhances the competitiveness of existing business, but also invests in emerging business such as EV battery, materials and chemical business and boosts social values through the Green Innovation. SK innovation ultimately aims to become a global prestigious company trusted by all stakeholders.

Implementation Strategy “Creating a Bigger Social Value by Innovating our Business Model”



Innovation of Portfolio with Investment for New Global Growth

Expansion of Investment to secure a new global growth engine

SK innovation accelerates its company-wide portfolio innovation to ensure global growth and secure a new growth engine.

In terms of the battery business, we determined to make new investment in large-scale plants in Hungary, China and the U.S. based on our core technologies capabilities for EV battery. With such determination, the company has grown into a global leading company in the EV battery business, which is one of the future's new growth sectors. For the materials business, we solidify our status as an industrial leader by global facility investment for LiBS, which is a core battery material, and invest in FCW (Flexible Cover Window), which is expected to grow in the future. From April 2019, the division was segregated as a subsidiary of SK innovation to secure business expertise and establish an independent management system.

With the acquisition of EAA (Ethylene Acrylic Acid) and PVDC (Poly Vinylidene Chloride) divisions of DowDuPont, a global chemical industry in 2017, SK global chemical has accelerated global growth through M&A in the high-value-added chemical products sector, which is likely to grow further in the future.

Reinforcement of business competitiveness and enhancement of value

With the aim of preparing for global environmental regulations and reinforcing business competitiveness, SK energy is making investment in Vacuum Residue Desulfurization (VRDS) facilities and enhancing business value by developing a new business model “Home Pick” utilizing gas station network. We also continuously improve the competitiveness of SK incheon petrochem and Ulsan Complex. SK lubricants is expanding global leadership by reinforcing global partnering and product competitiveness in the advanced premium base oils and lubricant market.



Optimization

As a leading company in the energy and chemical industry, SK innovation maximizes the value of raw materials and products and creates a synergistic effect between business projects based on business knowledge and capability for data, optimization and analytics in core business and pursues differentiated competitiveness in growing business.

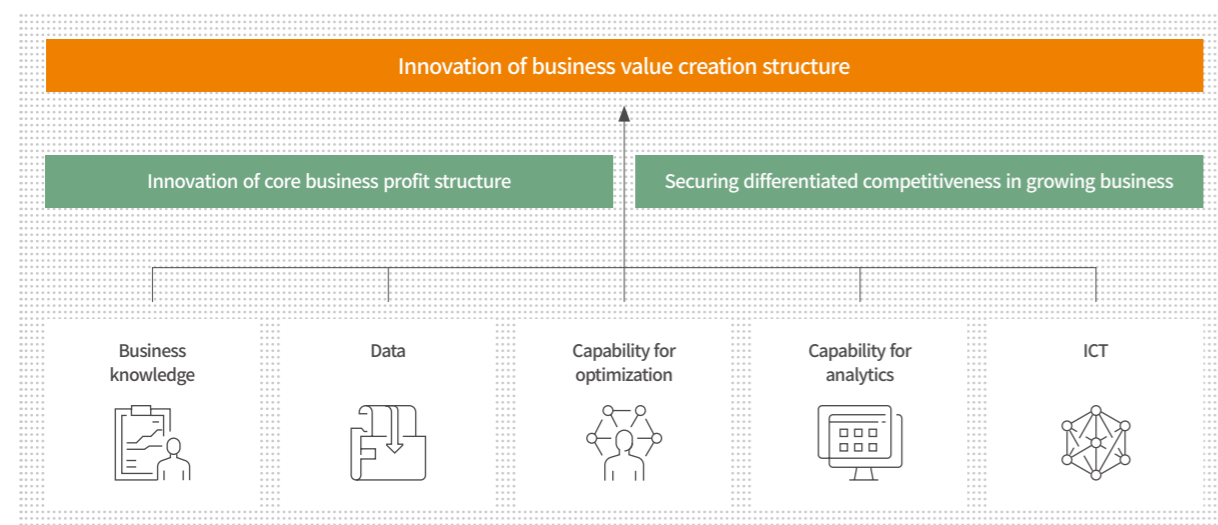
We also ensure more scientific and efficient decision-making methods in all value chain sectors by systemizing optimization and analytics in convergence with our capabilities and ICT. SK innovation will continue to enhance corporate value through the innovation of profit structure in all business sectors.

Innovation of Optimization-Based Profit Structure

For the past five decades, SK innovation has accumulated an extensive range of knowledge and data in a variety of sectors such as crude oil, energy and chemical refinement, market and global business environment as an energy and chemical leading company. Since 2012, we have operated an organization in charge of optimization and continuously secured the capabilities to conduct advanced optimization such as mathematical algorithm modeling and analyze data inside and outside the company in a systemic and quantitative manner. By combining such capabilities, we have been able to evaluate the intrinsic value of raw materials and products more accurately and adopt raw materials suitable for the business structure. The company also has the ability to analyze any opportunities and risks based on the external environment, promptly deal with such changes and maximize the profit structure for business management.

Securing Differentiated Competitiveness Based on Analytics

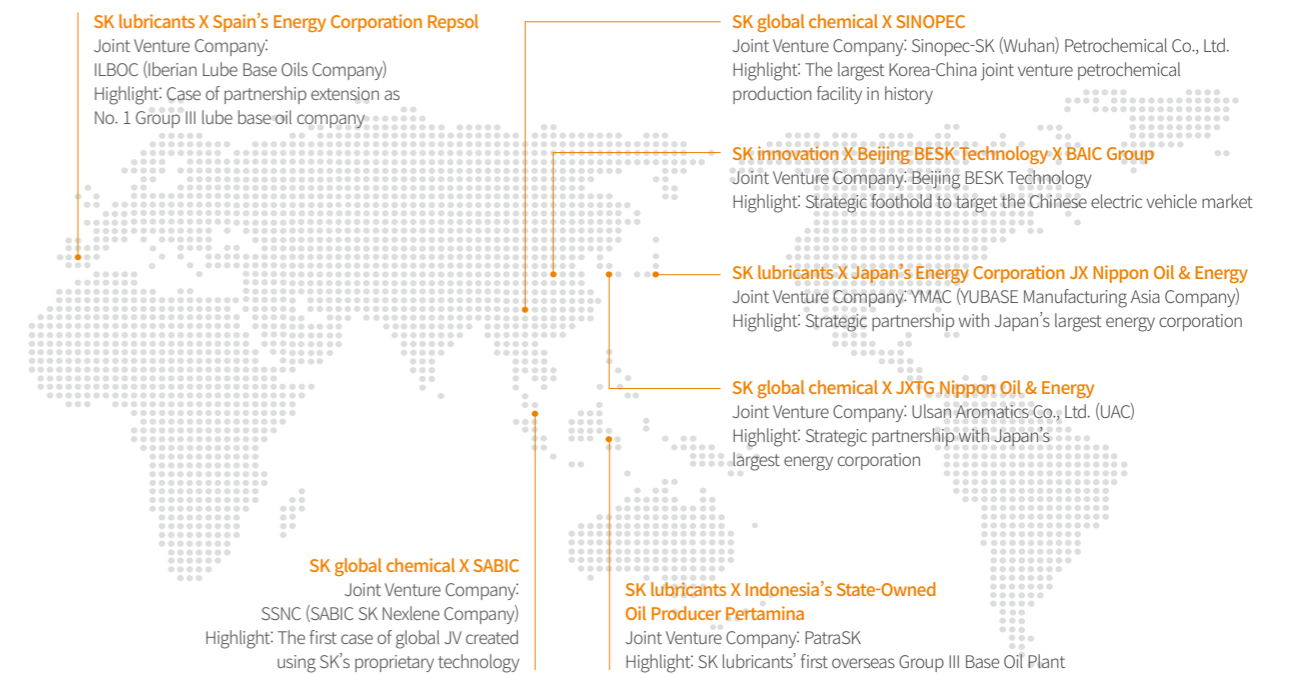
As business sectors of SK innovation became more diversified to EV battery, information and electronic materials and E&P, it is much more important to secure differentiated competitiveness in growing business sectors. Accordingly, we have reinforced the function of analytics in the optimization organization and focused on securing and supplementing big data and AI capabilities. By securing differentiated competitiveness based on data analytics, SK innovation enhances the efficiency of the battery business and maximizes the success rate of E&P project exploration and productivity. The company will continue to improve corporate value by securing differentiated competitiveness in the new emerging business sectors.



Globalization

SK innovation acquires advanced business know-how and secures competitiveness in the global market through strategic partnering for win-win relationships with distinguished companies in each industry. We will proactively implement global partnering with overseas advanced companies and maximize our potential for growth.

Current Status of Joint Venture Companies



Global Business Sites

SK innovation
Crude oil production block: Peru, Vietnam, U.S., Libya
Crude oil exploration block: China, Vietnam, Australia
LNG project: Yemen, Peru, Oman, Qatar
Technology Innovation Center: Daejeon R&D Center
Overseas subsidiary: Poland, China

SK energy
Overseas subsidiary: China, Singapore, Vietn

SK global chemical
Overseas subsidiary: China, Singapore, Japan, U.S., Spain
Overseas branch: Dubai, Germany

SK lubricants
Overseas subsidiary: U.S., China, India, Russia, Japan, Netherlands, Indonesia, Spain
Overseas branch: U.K., China

SK trading international
Overseas subsidiary: Singapore, U.K., U.S.
Overseas branch: Dubai

Global Production Business Sites

SK innovation, SK energy, SK global chemical, SK lubricants
Ulsan Complex: Refinery plant, middle distillates cracking plant, petrochemical plant, polymer plant, lube base oil and lubricant plant
Seosan, Hungary, U.S. Plants: Lithium-ion battery production lines
Jeungpyeong, Cheongju, China, Poland Plants: LiBS/CCS production line, FCW production line

SK incheon petrochem
Incheon Plant: Refinery and petrochemical plant

RESEARCH & DEVELOPMENT

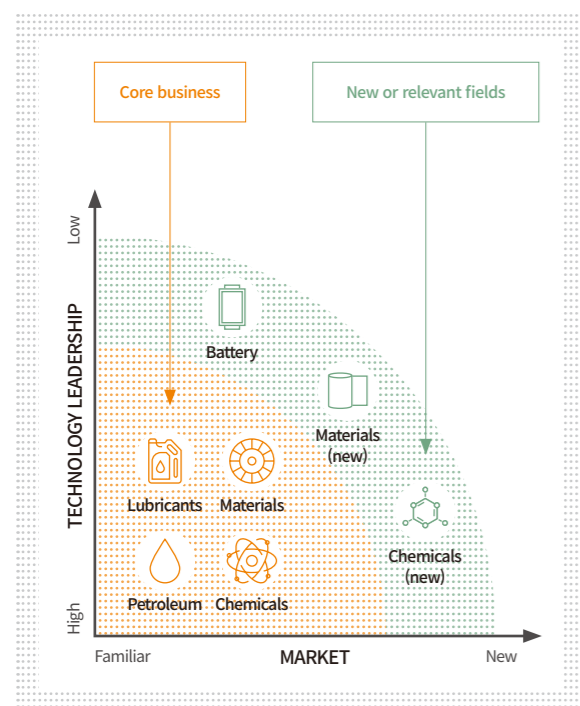
Innovative performance through R&D is our core strategy that secures our unique competitive edge. SK innovation is strengthening its competitiveness based on the technology accumulated through its energy and petrochemical business. In addition, SK innovation is discovering new growth drivers through open innovation and new technology development for sustainable growth in the future.

R&D Structure

R&D strategy

The Institute of Technology Innovation provides a Tech Solution for core businesses in oil, chemicals, lubricants and materials to secure sustainability and speed up global growth. It also aims to develop, improve and expand on our strong business capabilities to maintain a differentiated competitive edge. Furthermore, we obtained competitiveness for both social value (SV) and economic value (EV) by methods such as securing future generation technology for core businesses and prospective environmental technology. We also support business model innovation and will continue to pursue innovation by creating and completing a global open R&D system.

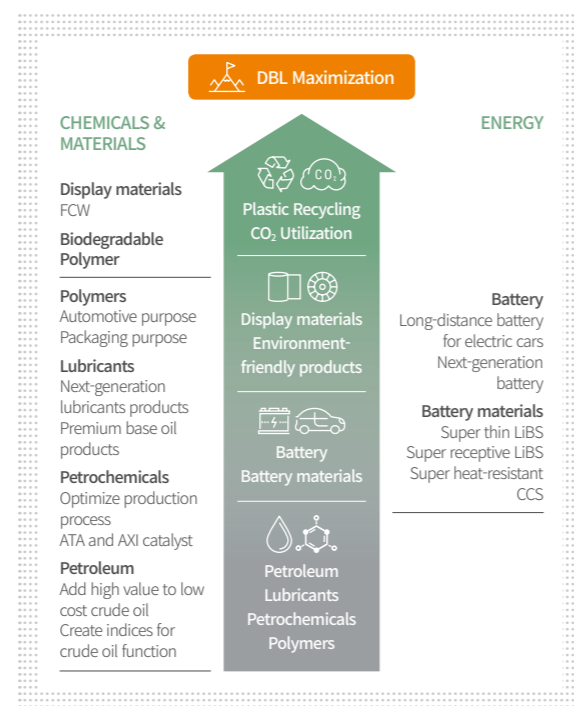
R&D Direction



Institute of technology innovation

Since the establishment of SK Daedeok R&D Park in 1995, SK innovation has been pursuing technology leadership through technology innovation. The complex includes our Institute of Technology Innovation, which is in charge of our R&D projects, and the Battery R&D center, which supports the battery business. The Institute of Technology Innovation is composed of: petroleum and lubricants center, petrochemicals center, base technology center, materials center and center for R&D innovation. We actively promote R&D collaboration by connecting and consolidating with outside infrastructure based on our technology and assets. Through this method, we will secure competitive technology for existing businesses: petroleum, chemicals and lubricants as well as secure next-generation technology for future growth.

R&D Growth Plan



Major R&D Activities and Performance

Development of environment-friendly asphalt products

Environmental impact during asphalt production and paving process as well as safety and recyclability of wastage were issues to be addressed. SK energy developed and commercialized a premium asphalt with groundbreaking improvement in water-resistance and workability. Our premium asphalt not only minimizes potholes but can also be used to produce and construct asphalt concrete at low temperatures in order to reduce harmful substances like carbon dioxide and fine dust. In addition, we are developing an asphalt suitable to reuse the asphalt pavement waste. We will extend the use of our environment-friendly products from the domestic market into the global market such as China to achieve financial performance as well as maximize social values.

carbon emissions and air pollutants, and ultimately contribute to protecting the environment. In the future, we will develop batteries for electric cars with improved power density and rapid charging capability.



Environment-friendly asphalt

Super solid, high impact-endurance material

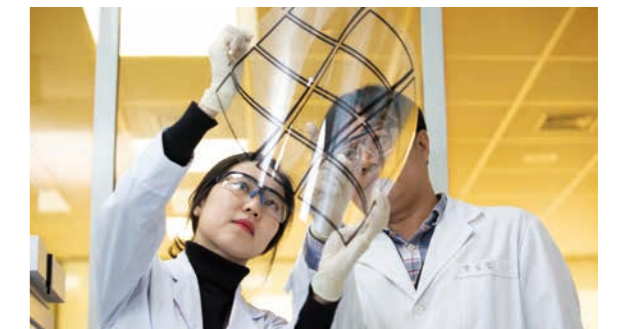
The ultra-solid quality of High Crystalline Polypropylene Plastic (HCPP) and extreme endurance to impact are essential qualities to create lighter cars. SK innovation optimized the properties of HCPP components; Homo PP (Polypropylene) and EPR (Ethylene-Propylene Rubber) which allowed us to cut 10kg off the weight of automobiles based on medium-sized vehicles and improve fuel efficiency by 2.8%.



HCPP applied product

Core material for flexible display

As interest in flexible display applied on smartphones, tablet PCs and televisions is peaking, demand is growing for cover window products made of flexible film. SK innovation began R&D on polyimide (PI) using the technology we accumulated since 2006. In particular, we completed trial production of flexible cover windows (FCW) which met the product properties demanded from domestic and global display panel manufacturers: flexibility, solidness and anti-scratch quality. We are building a mass production plant for FCW targeting commercial operation from 2019. We plan to extend the use of transparent PI and create higher-value-added products by creating diverse products with our technology. We will also construct a second plant to meet forecast market growth.



Flexible Cover Window

High power-density battery

As market demand is growing for electric cars to drive longer distances, safe, high power-density batteries are becoming more and more important. In response, SK innovation developed an ultra-storage, high-power-density cell and its model product. We also completed developing the material and production technology to achieve the product. With this development, we will spread the use of electric cars, reduce



Battery Cell

MARKET OUTLOOK

SK innovation analyzes the business market environment including potential fluctuations in a comprehensive way, as well as preparing a systematic response method to meet external changes to secure fundamental competitiveness.

Petroleum Production Business

Major market trend

Massive supply of unconventional oil and gas from U.S. has brought rapid changes in E&P industry. On top of that, growing global energy demand and U.S tax reform have induced bigger investments in the unconventional assets. Consequently, the market portfolio is currently under active modification in pursuit of improving the profitability.

Oil price trend

After the price of Dubai crude oil reached USD 115 per barrel in June 2014, there was a continuous fall in price until it became USD 26 per barrel in January 2016. As of December 2018, the average price per barrel is now hovering around USD 57.

Battery Business

Business characteristics

The medium-large battery business sector is where we develop, produce and sell high-storage lithium-ion batteries for electric cars and ESS (Energy Storage System). Automobile manufacturers are the main buyers of electric car batteries. Business transactions occur in contracts, initially to agree on a large quantity which is gradually supplied over a long period of time. Technology, product safety, cost competitiveness and stable supply are important factors in the automobile battery business. ESS is in the spotlight as technology for renewable energy as it stores surplus electricity production for future use, to solve the imbalance in supply and demand. Product safety and efficiency are crucial standards for ESS.

Market situation

Electric car batteries and ESS are anticipated to drive future growth with the spread of global environment-friendly products and renewable energy trends. As technology and economic efficiency of electric cars improve, major global automobile OEMs are enhancing their electric car lineup and investment

which is transforming the global automobile market into a new era of electric cars. As electric cars become more popular, the electric car battery market will continue to grow rapidly. The ESS market is also forecasted for continuous growth with the increasing demand for renewable energy and energy storage. Demand for automobile batteries is closely related to the demand for electric cars. Currently, the electric car market is influenced by environmental regulations and policies to promote electric cars but the industry reliance on regulation will continue to drop with technological advances and improved economic efficiency.

Materials Business

Market situation

LiBS (Lithium-ion Battery Separator) is the core material in lithium-ion batteries. It blocks direct contact of anode and cathode and provides a pathway for lithium-ion. It continues to develop with the growth of the battery market. The FCW (Flexible Cover Window) is a core material that substitutes glass on flexible displays like foldable phones and is composed of polyimide (PI) and hard-coat. We anticipate it will be the rapid growth force for the quickly changing display market which is pursuing changes in form factors.

Chemicals Business

Basic petroleum business trend

The basic petroleum business is a basic materials operation that uses naphtha and other feedstocks to produce olefin products such as ethylene and propylene as well as aromatics such as benzene, toluene and xylene. These products are used to create petrochemical products like synthetic plastics, synthetic rubber and synthetic fiber. In addition, the basic petroleum business is a facility-based industry which requires large-scale investment in equipment. Initial investment cost is high and first mover advantage in technology is strong which results in a high

entrance barrier but the industry fluctuates regularly depending on the world economy and global supply conditions. Since 2009, the petrochemical industry has bounced back due to China's economic stimulus policy but global uncertainty has grown with new facilities built in China and the Middle East, financial crisis in the Eurozone and the delay in the recovery of the global economy. Furthermore, we forecast that the spread of non-traditional, low-cost resources such as shale gas and coal will act as the main variables in market fluctuations.

Chemical materials business trend

The chemical materials business provides chemical products to a wide range of industries including automobiles, electronics, construction, pharmaceuticals and clothing. The industry profitability is sensitive to changes in oil price and economic fluctuations of industries. The sector is especially closely connected to the economic growth in China since the demand in China is extremely high. Recently, we have also been expanding into emerging markets like South America, Southeast Asia and India. In the case of general petrochemical products, price is the main differentiating factor. In order to secure competitiveness, it is necessary to achieve economies of scale and cut costs through business efficiency. Furthermore, as it is becoming more important to differentiate products by adding value based on technology, technology to design and produce is highlighted as a core competition factor. The high-functional ethylene acrylic acid (EAA) and poly vinylidene chloride (PVDC) which are the core materials in multi-layer packaging film are forecasted for continued growth as the markets have high barriers to entry and demand from emerging markets like China will develop.

Petroleum Business

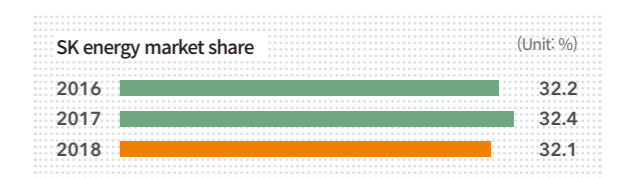
Business characteristics

The petroleum business is basically composed of a value chain from crude oil import, production, transportation and sales. Crude oil takes up the biggest cost. Since our entire supply relies on imports, business performance heavily depends on the export policies of oil-producing countries in the Middle East and the exchange rates. The distribution channel is largely made of wholesale and retail. Wholesale points to direct buyers and middle buyers like service stations. Retail signifies sales to general consumers in service stations or charging stations.

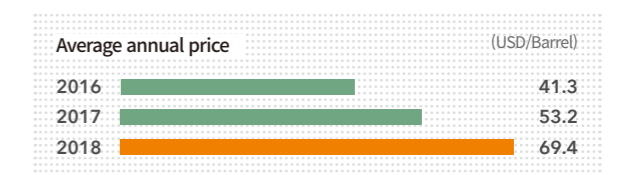
Consumer trend in petroleum products

The aggregate domestic demand for major petroleum products in December 2018 grew 0.2% year on year. Regarding transportation fuel, demand for diesel dropped year on year and demand for petroleum and aviation fuel increased year on year.

Domestic market share in petroleum market¹⁾



Dubai Crude price trend²⁾



1) Based on domestic sweet crude oil sales from Korea National Oil Corporation's oil information system

2) Based on Platts official price

Lubricants Business

Characteristics of base oil business

The Group III base oil is mainly used in manufacturing automobile engines and lubricants for transmissions. In major markets such as Europe, North America, Japan and China, strengthened emissions regulation standards and rapid improvement in engine technology has resulted in a higher demand for premium base oil. Fuel efficiency regulations are becoming stricter as advanced countries announce regulations that are more than 20% stricter in conditions from 2015 to 2020 as well as emerging nations also continuing to strengthen relevant policies. In response, major global automobile manufacturers are developing various technologies such as the turbo and hybrid engines. These engines require high-quality lubricants to maintain stable performance which is leading to the gradual increase in usage of premium base oils like Group III.

Characteristics of lubricants business

The lubricants business can be divided into B2B (Business to Business) and B2C (Business to Customer) based on distribution channels. Major clients in the B2B sector are automobile manufacturers that purchase either Factory Fill, fuel for manufacturing facilities or direct car center agencies that purchase Service Fill. In case of the B2C market, not only brand awareness but product handling in the distribution channel; agent, store and car center are crucial. Industrial lubricants can be categorized into B2B and B2C markets. Major B2B consumers are industries, construction and machinery companies who use the product to operate and maintain industrial equipment. Main B2C consumers are drivers of heavy machinery and the product is used for oil brake equipment like excavators. Shipping companies are the major buyers of transportation lubricants and relationships with port companies and refueling companies are also important in securing the market.

BUSINESS PERFORMANCE

SK innovation aims to improve the company's value continuously by enhancing profit structure and maintaining revenue growth. We intend to become a company all stakeholders have faith in by securing unique competitiveness and discovering new growth drivers.

Major Performance by Sector

Petroleum production business

Our revenue and operating profit have increased by 19% and 36% respectively in 2018 thanks to the rise in oil price. In 2019, we anticipate a higher production volume as we plan to expand the scale of development in SK Nemaha. We also plan to make preparations for the development of the projects that we have successfully discovered in China and Vietnam.

Battery business

Since commercializing the lithium-ion battery in 2005, we established a battery research infrastructure in our Daejeon R&D Center and began operating our mass production facility in Seosan, located in the Chungcheongnam-do Province to complete our system of technology development and mass production. We provide high-output and high-density batteries based on safety. We are also building battery plants in Hungary and the US to meet the needs of global automobile manufacturers.

Materials business

Since developing a unique LiBS production technology in 2004, we have been producing the best quality LiBS in the world through continued improvement in the production process and the product. We run 11 production lines in Jeungpyeong and Cheongju located in the Chungcheongbuk-do Province. We are building 2 additional product lines targeting mass production by late 2019. In addition, we are driving investment in Changzhou, China and Silesia Province, Poland to respond to the demand of China and Europe, the largest growing market for the electric car battery industry.

Petroleum business

In our petroleum sector, we recorded KRW 709.3 billion in operating profits due to the stability in both refinery margin and profit structure. We are improving our viability through continued innovation in profit structure and increase in

market share. Our efforts are going into building a long-term growth base such as discovering new business models to help us become an improved energy company.

Chemicals business

Despite deteriorating market conditions due to easing trade onshore/offshore, we achieved KRW 1.1176 trillion in operating profit based on the peaking paraxylene market and our high-value added product portfolio. SK global chemical is accelerating its global growth centered on China by securing market competitiveness based on technology and is continuing to increase corporate value by discovering various growth options.

Lubricants business

We are focused on strengthening our status as a market leader in the domestic market. We continue to expand our top-tier and premium level products by improving the SK ZIC brand. We use an incentive policy to increase the number of stores that carry our products within our distribution network. In the global market, we are focused on expanding sales of premium products to markets with high-growth potential such as China and Russia.

Total revenue (Unit: KRW 100 million) **Total operating profit** (Unit: KRW 100 million)



Revenue (Unit: KRW 100 million)

Business type	2016	2017	2018
Petroleum	283,699	327,712	391,935
Chemicals	76,865	93,392	106,844
Lubricants	25,358	30,475	32,661
Battery	1,442	1,457	3,482
Oil development and other businesses	7,401	8,590	10,186
Total	394,765	461,627	545,109

Operating profit (Unit: KRW 100 million)

Business type	2016	2017	2018
Petroleum	16,256	15,020	7,093
Chemicals	12,322	13,772	11,176
Lubricants	4,683	5,049	4,607
Battery	(1,001)	(2,321)	(3,175)
Oil development and other businesses	172	697	1,476
Total	32,433	32,218	21,176

Credit Rating

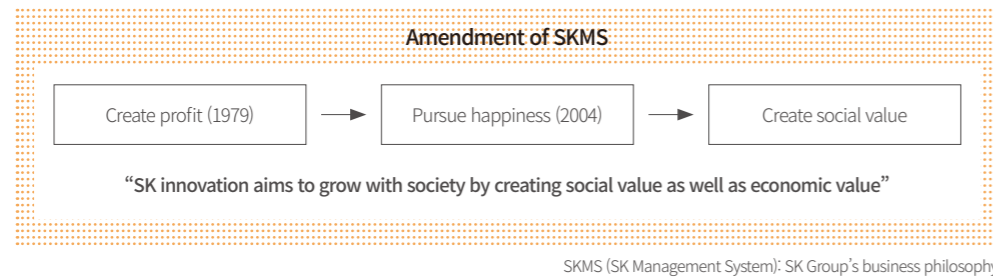
SK innovation has improved its financial structure through continuous business diversification. Thanks to healthy financial policies and stable operating cash flow, we earned a credit rating of BBB+ (stable).

<p>Domestic credit rating</p> <p>AA+</p> <p>(Korea Investors Service)</p>	<p>Global credit rating</p> <p>BBB+</p> <p>(S&P)</p> <p>Baa1</p> <p>(Moody's)</p>
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DOUBLE BOTTOM LINE

SK Double Bottom Line (SK DBL)

SK innovation incorporated the DBL principle into its management philosophy to manage both economic and social value creation, breaking away from the conventional single bottom line principle to focus only on economic value. Through these efforts, we aim to achieve sustainable growth and stability.



Background of SK DBL Implementation

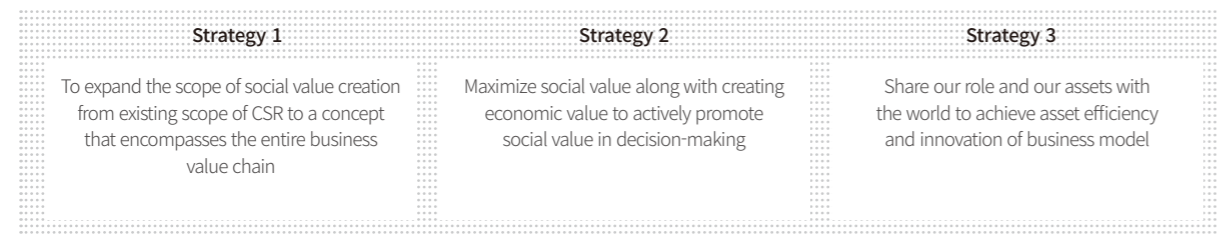
- To pursue happiness of all stakeholders by increasing social value
- To respond to changes in the social role of companies
- To build a sustainable growth strategy by innovating our business model

Composition of SK DBL

SK DBL is made of economic value and social value. Economic value is the final result of a company's business operations and is generally recognized as financial performance. Social value is social performance achieved by creating social value and minimizing cost of social damage through business operations.



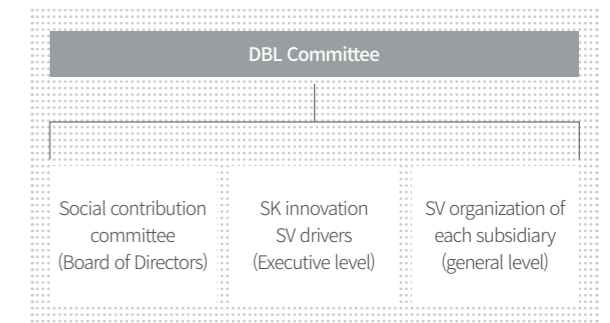
SK DBL Major Strategies



SK innovation Double Bottom Line (SKI DBL)

SK innovation DBL Implementation System

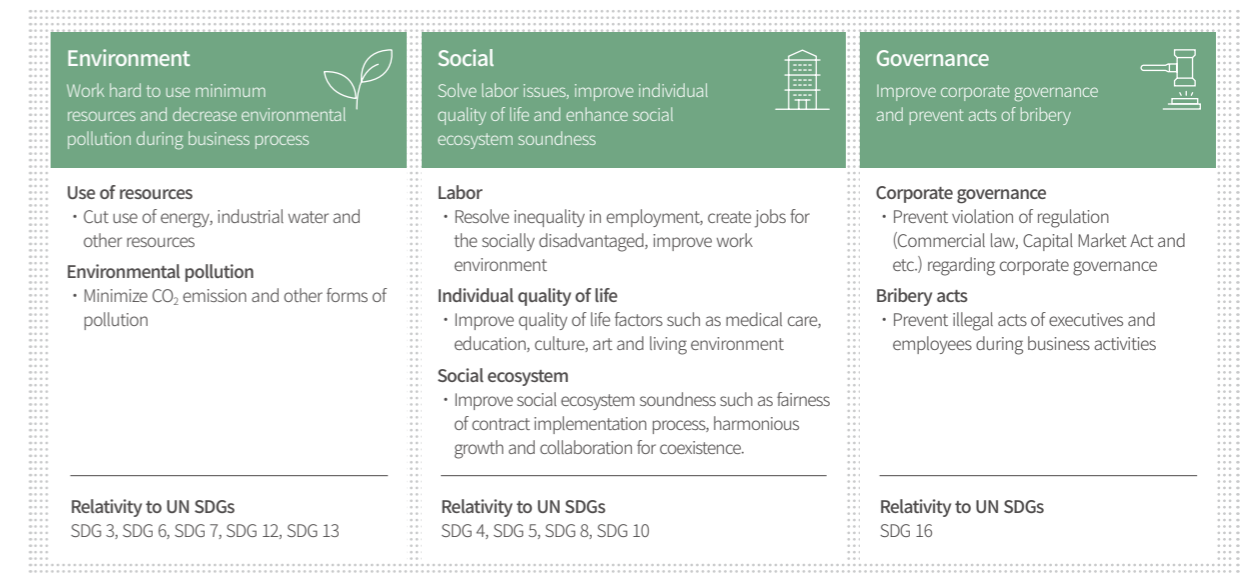
SK innovation created a DBL-based organization system in order to reflect social value as our top priority. We allocated the social contribution committee under the BOD and established the DBL Commission, the major panel for CEOs and main executives of SK innovation and its subsidiaries. We also created an executive-level organization called the SV acceleration squad to design and support strategies for social value creation. Furthermore, we formed groups in charge of general tasks regarding SV to design the company's comprehensive support system to explore innovative Business Model (BM) focused on DBL.



DBL Mid- to Long-Term Implementation Strategy

We have converted our direction from pursuing economic value and have set 50% of our business goals in 2019 to pursue social value. Based on the change, we formed a

structure to bring about a fundamental change which would drive the participation and cooperation of all employees. We will establish our mid- to long-term Green Innovation masterplan which encompasses all subsidiaries of SK innovation in order to accelerate our transformation into a low-emission Business Model. We will support relevant subsidiaries and departments that are in charge for the effective implementation of the strategy.



SK innovation Double Bottom Line (SKI DBL)

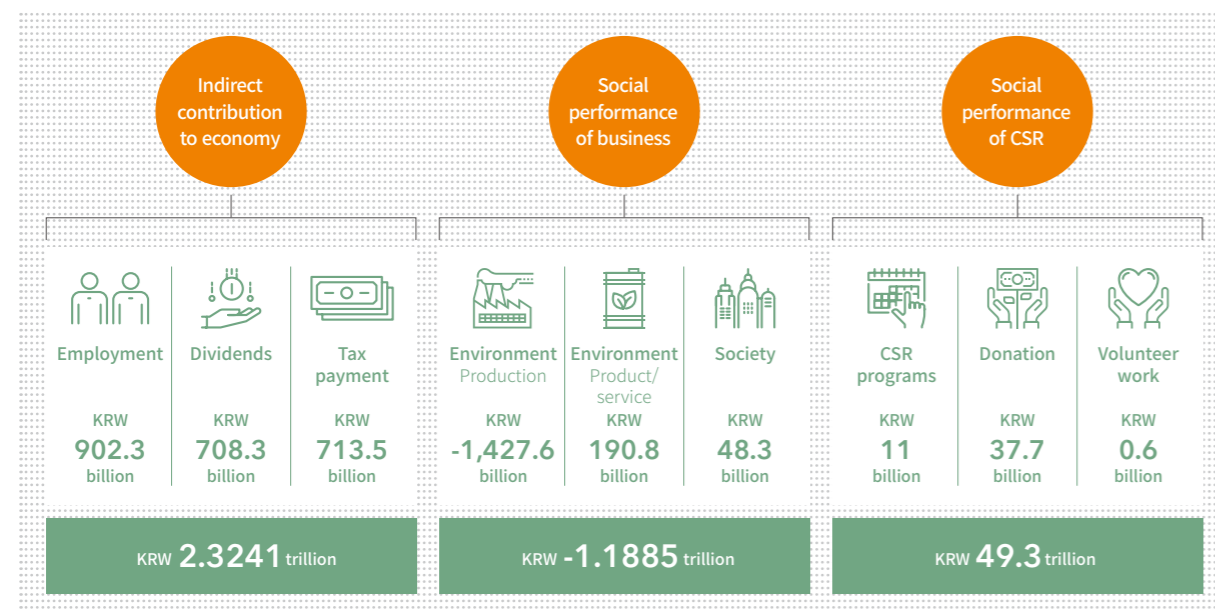
Objective of Measuring DBL

SK innovation will create a standard for improvement by measuring DBL along with strengthening its business model innovation. First, we intend to establish a standard for improvement rather than focusing on the quantity of the result. We will comprehend the positive (+), negative (-) and size of the specific field by each subsidiary. We will set goals to expand on the positive impact and improve the negative impact and manage operations. In addition, we will assess social issues relevant to our business by improving social values, use the perceived issues as an opportunity to innovate our business model and develop sustainability. Ultimately, we will create social value by spreading social values that encompass all parts of the business ecosystem through DBL measurement.

SK Innovation DBL Performance in 2018

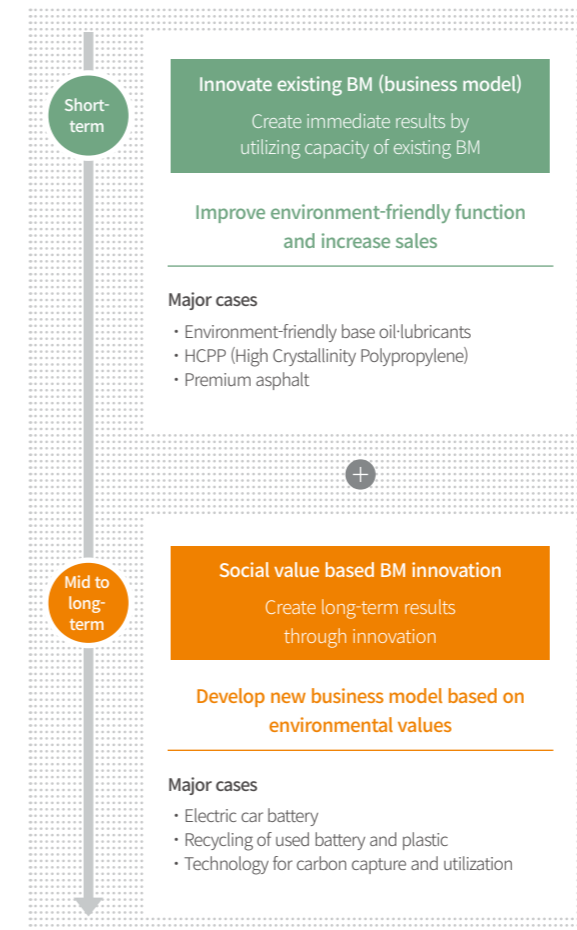
SK innovation achieved indirect economic contribution worth KRW 2.3241 trillion, business social performance worth KRW -1.1885 trillion and social contribution performance worth KRW 49.3 billion. In particular, we learnt that the negative impact is largest in the environment (production) field and that a structural constraint exists in the business we operate where business growth leads to environmental impact. In addition, we are aware that external stakeholders demand changes in environmental areas. SK innovation is working to solve environmental issues from a systematic structural perspective. We will achieve a Green Balance by securing future growth drivers and maximizing DBL to cancel out negative environmental impacts with positive impacts.

SK innovation DBL performance in 2018



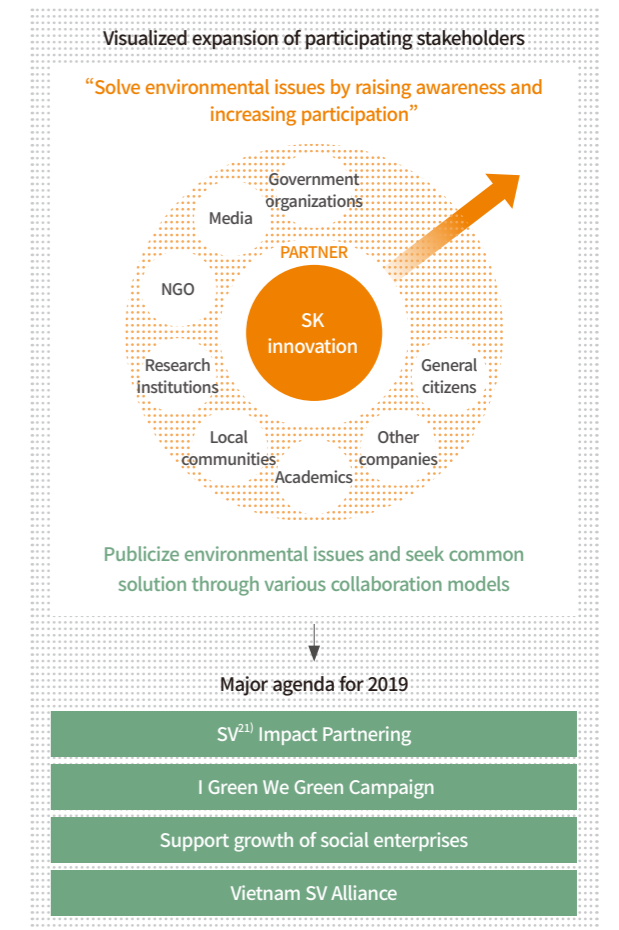
Strategy to Improve DBL Performance

SK innovation is working towards continuous environmental performance by innovating our business model based on existing operations. Simultaneously, we will execute BM innovation based on social values for long-term improvement.



Solve Environmental Issues with Society

SK innovation creates diverse values by solving issues with stakeholders by developing social enterprises, partnering with social ventures, philanthropic activities and campaigns.



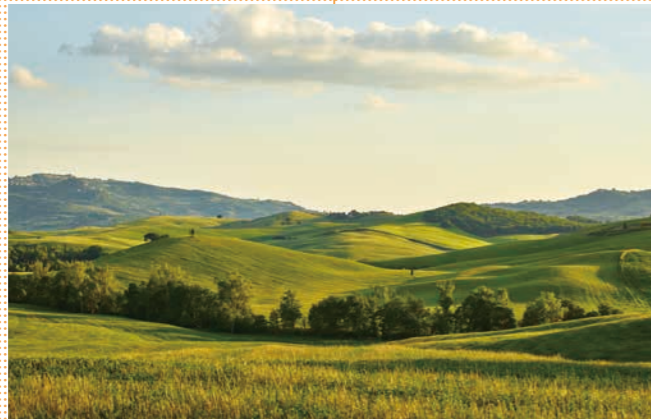
1) Social Value X Social Venture

FOCUS AREAS

SK innovation creates social value in areas that are highly relevant to our business and also create much social interest through active communication with our stakeholders.

MATERIAL ISSUE 01

Active Responses to Climate Change



Why is it important?

Importance of the issue

SK innovation is facing various risk factors from stricter regulations on energy and environment such as global efforts to reduce greenhouse gas emissions following the Paris Climate Treaty as well as a decrease in asset value from reduced use of fossil fuels. We are building a system to respond to the issues in advance and manage them on a company scale as well as engaging in various activities.

How is SK innovation responding to this issue?

SK innovation's strategic approach

- Build a response roadmap to analyze risk scenarios
- Forecast excess or deficiency of carbon credits through emissions simulation, create and operate a trading platform
- Discover and drive businesses to obtain emissions credit abroad to execute emissions trading
- Reduce greenhouse emissions by improving energy efficiency and transforming fuel

How is performance tracked?

Performance evaluation method and mid- to long-term goals

- Set target amount and manage emissions
- Find cases of reduction in emissions or cost, provide incentives
- Set internal price for emissions, measure and include economic efficiency of investment projects

Reducing Greenhouse Emissions through Products

Produce environment-friendly base oil and lubricants

SK lubricants developed a low-density quality base oil product which is being sold on the global market. The product can improve fuel efficiency by up to 2.0% compared to the existing general products. This will also lead to reducing greenhouse emissions. If we consider environment-friendly base oil and lubricant products purchased by the global market, we created social value of KRW 131.5 billion in 2018 by reducing greenhouse emissions. We plan to extend our product line-up and expand areas where green base oil products can be used.

Reduce environmental impact with HCPP (High Crystallinity Polypropylene)

SK global chemical has developed HCPP which lightened the weight of vehicles resulting in better fuel efficiency as well as reducing greenhouse emissions. Applying highly solid and light plastic on vehicles can cut its weight by 10kg which improves fuel efficiency by 2.8% and reduces CO₂ by 4.5%. If we factor in our sales volume, we created social value worth KRW 4.5 billion in 2018. We will increase our sales by 40% by 2021 and develop additional environment-friendly plastic products.

Energy Efficiency

Reduce greenhouse emissions through waste heat business

Waste heat is the unused heat given to the surrounding environment during energy use. It is always produced when energy is used like the exhaust fumes of boilers or heat from cooling water in power plants. SK incheon petrochem is running an 'Energy Upcycling' project which collects this waste heat to supply as energy for heating in the area. Energy upcycling is the practice of utilizing byproduct energy created from production processes as a second energy source to improve its usage value. In particular, the heat source SK incheon petrochem provides can substitute high-power generation which is relatively higher in cost, which can reduce the cost of the heat source for the community. Above all, this kind of reduction can replace annual energy use of 27,000 tons of LNG or 66,000 tons of soft coals, which will reduce 50,000 tons of greenhouse emissions per year.

New Technology to Process Greenhouse Emissions

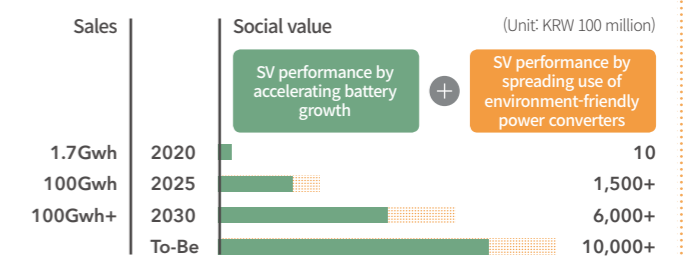
New technology to retrieve carbon dioxide

We are expecting cuts in carbon credits and an increase in carbon credit price due to stronger environmental regulations and policies to cut greenhouse emissions. In response, SK innovation is developing a low-cost environmental carbon capture technology to develop new carbonic anhydrase (CA). We activated the CO₂ Carbonation catalyst for the first time in 2018 after continuous investment and developed two types of new heat-resistant CAs which we patented. Furthermore, we secured a platform technology to develop pure catalysts and research force to study mutations.

Promote spread of environment-friendly electric cars

SK innovation will create environmental value by growing its electric vehicle battery business that contributes to spreading eco-friendly electric vehicles. Electric cars release only 47% of the amount of greenhouse emissions that vehicles with internal combustion engines release¹⁾. One electric car can reduce 1.1 tons of greenhouse emissions a year. SK innovation will create social value step-by-step through its battery business.

1) Source: Korea Energy Economics Institute publications



MATERIAL ISSUE 02

Sustainable Supply Chain



Why is it important?

Importance of the issue

The significance of managing a sustainable distribution network is growing as stakeholders demand compliance with corporate social responsibility and regulations on cooperative growth of conglomerates, medium- and small-size companies grow stronger. SK innovation manages risks coming from suppliers and has established sustainability in the industry ecosystem related to our company value chain in order to create social values.

How is SK innovation responding to this issue?

SK innovation's strategic approach

- Create social value through growing together with suppliers
- Improve capabilities of distribution network and promote competitiveness
- Understand and resolve risks which may arise within the distribution network

How is performance tracked?

Performance evaluation method and mid- to long-term goals

- Gain and maintain top rating in Evaluation of Corporate Partnership Index (by 2023)
- Enhance and strengthen supply chain ESG management by evaluating ESG risk for all of our supply chain (by 2023)
- Minimize compliance risks regarding purchasing (by 2023)
- Collaborate with suppliers to minimize environmental pollution through production of eco-friendly product and utilization of recycling products
- Strengthen supply chain ecosystem health by expanding social enterprise product purchase

Create Social Value with Suppliers

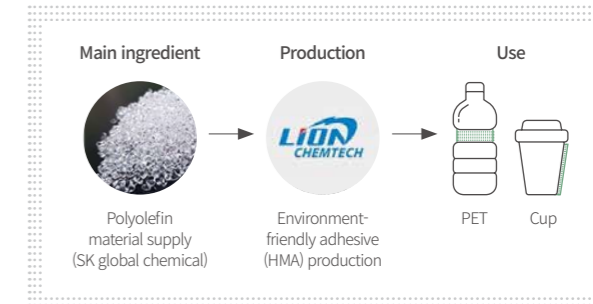
Co-developing environment-friendly adhesive technology through partnerships

SK global chemical developed the first environment-friendly hot melt adhesive in Korea in collaboration with partner 'Lion Chemtech' and is contributing to social value creation by spreading environment-friendly materials in the market. The existing adhesives mainly used Ethylene Vinyl Acetate (EVA) as the source ingredient, which could cause issues in the production process like emitting harmful gas. SK global chemical utilized Nexlene™, an internally developed commercialized product to co-develop an environment-friendly ingredient for adhesives. This ingredient has gained recognition at home and abroad for being hygienic and highly resistant to cold temperatures. Furthermore, the patent will go to Lion Chemtech and both companies will possess patents for future developments.

SK global chemical provides the core ingredients and technology to create green adhesives and Lion Chemtech manufactures the products with its unique pyrolysis technology. The collaboration of the two companies warrants various effects. Since SK global chemical does not need to build separate facilities, costs can be reduced. Meanwhile, Lion Chemtech has the opportunity to create stable profits. We forecast KRW 30 billion in revenue and plan to maximize sales through the marketing network both companies possess. As in this case, SK global chemical will create both social value and economic value by collaborating with partners and continue to grow together.

- 1) Brand of high-functional polyethylene that SK global chemical succeeded in developing in 2010
- 2) Resistance to losing properties when polymer materials such as rubber or plastic are exposed to low temperature

Production of environment-friendly adhesive and production design



Mutual growth with society through fund for coexistence

SK innovation runs a fund for coexistence with suppliers as a part of Happiness Sharing Fund through a shared effort between the labor union and the company. The program creates a fund based on voluntary donations from employees and 1% matching grant policy by the company. The funds are distributed to suppliers of SK innovation in all areas including facilities, production, cafeterias, expenses and cleaning. We anticipate the program will close the income gap between conglomerate and medium-small size companies to contribute to stronger relationships with suppliers. In 2018, SK innovation created a fund worth KRW 5.24 billion and donated KRW 2.36 billion to 4,431 individuals in 66 suppliers.

Support for social economy in the community

SK innovation utilizes its diverse promotional resources to spread products and services of exceptional social enterprises in the community and supports their business capabilities. In addition, we are actively building partnerships with local government and state to stimulate the social economy in the community.

Outcome of supporting growth of social economy

Value creation by supporting social enterprise in Ulsan

- **Supporting organization:** Usisan
- **Contents:** Usisan is a social enterprise created by elderly baristas or women with career disruptions that runs programs such as village happiness space, Whale museum gift shop, Whale Village post office

Social economic alliance with Jeollabuk-do Province

- **Partner bodies:** Jeollabuk-do Province, KBS, Jeollabuk-do Province Ministry of Education, Jeollabuk-do Province Social Economic Form
- **Contents:** Promote purchase of relevant products to stimulate social economy, advertising to raise awareness of province residents, execute various collaborative programs

Stimulate social economy in Seosan by supporting Tour Dure

- **Supporting organization:** Seosan city, Korea Culture & Tourism Institute, Hanseo University, Chungnam Social Economy Network, Community Chest Chungnam District
- **Contents:** Collaborate to stimulate social economy and local tourism industry, advertisement to raise citizens' awareness

Stimulate social economy of Jeungpyeong

- **Partner bodies:** Jeungpyeong County, Ministry of Employment and Labor Cheongju Branch
- **Contents:** Prioritized purchase of products and services from social enterprises, improve awareness of local residents, discover potential demand for social enterprises in the region for collaboration

MATERIAL ISSUE 03

Safe & Healthy Workplace



Why is it important?

Importance of the issue

Management of safety, health and environment (SHE) is a key for a company to achieve sustainable growth. If this function is neglected resulting in a serious accident, business operations are directly damaged as well as the image of the business. In addition, the scope of SHE management has expanded to social responsibility for suppliers and local communities. The importance of SHE for stakeholders, not just for the company, is growing. This change will lead to stricter government regulations for SHE and demand preemptive and proactive practice of SHE from companies.

How is SK innovation responding to this issue?

SK innovation's strategic approach

- Collaborate with suppliers to improve on SHE for mutual growth
- Environment or safety activities with local communities

How is performance tracked?

Performance evaluation method and mid- to long-term goals

- Achieve target for Lost Time Incidents Rate (LTIR)
- Achieve target for Unplanned Capacity Loss (UCL)

Mutual Growth with Suppliers by Improving SHE Standards

Guarantee stop-work authority for suppliers

In July 2018, SK innovation (SK incheon petrochem) held a day to promote safety with its suppliers to improve SHE management standards of suppliers and implemented the 'No accident, safety first policy for suppliers' and created a policy which guaranteed stop-work authority for employees. This is the right for workers to immediately stop work when they perceive issues of safety or potential hazards that arise during work on company sites. From July 2018 to March 2019, the right was practiced approximately 20 times by employees. We stipulated the right to stop work in our contracts in order to create a safe work environment for executives and employees of our suppliers. In this way, we are creating a culture that prioritizes work safety over the financial loss caused by stopping work.



1. Supplier implements No Accident Safety First policy
2. Drill training for stop-work authority in supplier

Interview

Kim Jin Wook
Head of Kukjae Industries Co.
(Partner of SK incheon petrochem)



SK incheon petrochem has documented 'stop-work authority' and included the right in the company's policy so that employees of suppliers can be responsible for their own safety. This is meaningful in that workers can exercise the rights of their own discretion without worrying about authorities. I feel the sincerity of SK incheon petrochem as they care for the safety of the supplier's employees which makes me work for them as if I am working for my own company. As I see the result of caring for my own safety and health, I am now more attentive towards the safety of my coworkers as well.

Safety for periodic maintenance

SK innovation Ulsan Complex has created a SHE Committee made of our production, facilities and SHE organization as well as suppliers to secure workers' safety during facility renewal or repair jobs that occur simultaneously for periodic maintenance. The committee acts as a control tower that discusses necessary issues to build a safe work environment and executes those decisions. In addition, we provide safety videos on site using vehicles equipped with monitors and create video contents on preventing or reacting to dangerous situations to train workers. For work at height, we install an experience booth

at the location to train workers on at-height safety issues. Through these practices, we are promoting the importance of SHE and improving the understanding and practice of obligatory SHE standards and procedures for numerous employees tackling various tasks at once.

SHE incentive policy for suppliers

SK innovation operates a SHE performance-based incentive policy to induce agent companies that conduct manufacturing and operating tasks on site to improve their level of SHE. We examine the possibility to prevent SHE hazards and according targets with suppliers by relevant work site. If the target is achieved, we provide an incentive to motivate supplier employees to better comply with SHE standards and procedures, practice them and participate in preventing hazards. In this way, we are co-creating a SHE culture together with our suppliers.

Discretionary safety health management system

SK innovation worked to obtain joint certification of KOSHA-OHSAS 18001 with suppliers to improve SHE standards. In 2018, we extended our certification for 40 suppliers and obtained new certification for 8 companies. In addition, SK innovation included the level of safety health management system in our SHE evaluation items to induce suppliers to secure safety through the system.

SHE Activities with Local Communities

Effort to reduce fine dust

In response to the fine dust problem that has currently become a social issue, SK innovation has set a target with the local community to reduce fine dust and is putting various efforts into practice. The Ulsan Complex entered into a 'voluntary agreement to reduce fine dust' with the City of Ulsan, environmental office and companies in the Ulsan area. The agreement aims to reduce 40% of fine dust, sulfur oxides, nitrogen oxides and VOC emissions based on 2014 figures by 2022 and improve monitoring of facilities that release emissions that can cause fine dust. Meanwhile, we conduct various activities to reduce fine dust such as exchanging the existing boiler burners to low NOx burners and changing our fuel to natural gas.

In addition, SK incheon petrochem signed a 'voluntary agreement to reduce fine dust in work sites' with the Ministry of Environment to improve the air quality in the metropolitan area. It is renovating facilities to reduce fine dust as well as implementing emergency measures at times of high-density fine dust warnings. Our work site in Jeungpyeong also signed a 'voluntary agreement to reduce fine dust' with North Chungcheong province and local companies aiming to reduce fine dust by 19% the amount of 2017 by 2020.

Environment and safety risk governance for local community

SK incheon petrochem has supported and actively participated in building a 'health and safety risk governance' with 13 relevant institutions including Hangang riverside environmental office under the Ministry of environment, Korea Occupational Safety and Health Agency and City of Incheon. It runs 10 major activities including: hosting a CEO safety forum to spread a safe culture for work sites, running exhibitions to experience safety drills for disasters to raise general awareness on safety, and providing consultations for chemical substance assurance to improve safety management skills in small businesses. We collaborate with other institutions based on these 10 items to maximize efforts.

First aid training in local health institutions

SK innovation Ulsan Complex runs a specialized organization that provides rescue and response activities when emergencies occur on site. 21 members of this workforce hold emergency care certifications. These members visit various welfare organizations and regional government institutions in the Ulsan area to donate their talent to provide experiential training in first aid and CPR.



1. Agreement ceremony to establish environment and safety risk governance
 2. SK incheon petrochem voluntary agreement ceremony
 3. SK innovation Jeungpyeong site voluntary agreement ceremony
 4. First aid training for regional welfare organizations

MATERIAL ISSUE 04

Community Engagement



Why is it important?

Importance of the issue

A company and the local community affect each other in various ways, directly or indirectly. If a company conducts self-righteous operations without considering the demands from the local community, it will receive criticism from stakeholders and gain a negative reputation which will act as an obstacle in business operations. On the other hand, communicating actively with the community and conducting philanthropic acts will help create social values in the community as well as gain many alliances in operations. This can also provide an opportunity to innovate and establish a new business model.

How is SK innovation responding to this issue?

SK innovation's strategic approach

- Maximize stakeholder happiness by pursuing economic and social values
- Continuous innovation to solve fundamental social problems
- Think deeply about the socially disadvantaged and drive meaningful activities
- Promote activities in local community related to UN SDGs

How is performance tracked?

Performance evaluation method and mid- to long-term goals

- Continue to discover and support star social enterprises
- Manage average time of voluntary work per employee
- Manage investment funds for social contribution

Develop Global Communities

Mangrove forest restoration project in Vietnam

SK innovation is expanding its program to create environmental value. To battle global warming, we have been planting mangrove trees in Vietnam, one of the regions most vulnerable to climate change where we also develop oil and operate rest stations for freight vehicles.

In 2018, we planted 35,000 mangrove trees in an area of 11 hectares in Tra Vinh, Vietnam based on our 1% Happiness Sharing Fund. 1 hectare of mangroves can absorb 34 to 1,000 tons of carbon dioxide and these trees also act as a natural shield from natural disasters such as tsunami. In addition, we are supporting the livelihood of community by planting mangroves as well as providing education on the environment to residents and students. Furthermore, we have promoted research on Mangroves through Ho Chi Minh City University of Technology and we are collaborating with our global partners: Petro Vietnam E&P and Saigon NewPort through an environment contribution MOU to restore mangroves. We will review establishing a social enterprise in Vietnam in connection with the mangrove forest restoration project in early 2019 through which we will secure resources for the project, create jobs for the socially disadvantaged and increase profits for the community. We also plan to expand the enterprise to collaborative volunteer work with global partners. Simultaneously, we plan to restore 30 hectares of mangrove forests by 2020.

Number of mangroves planted in Tra Vinh province in 2018

My Long Nam region	Long Khanh region
<ul style="list-style-type: none"> • 26,000 trees planted • Visits to elementary schools for environmental education 	<ul style="list-style-type: none"> • 9,000 trees planted • Visits to elementary schools for environmental education

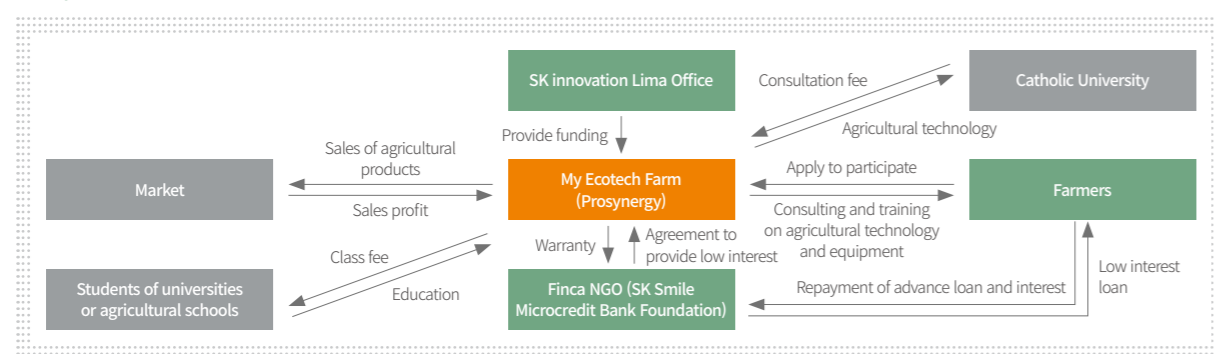
Agricultural technology promotion and profit model in Peru

SK innovation established ProSynergy, an organization specializing in social contribution, in Lima, Peru where we operate our business. We built branches 1 and 2 of Yachaywasi, a social enterprise aiming to promote agricultural technology and increase profits for low-income farming households. Through this social enterprise, we provide education in farming and livestock as well as securing a network to support the community with facilities and technology. We are also creating profit together through collaborative sales of agricultural goods and contributing to the well-being of farmers by working together with SK Smile Microcredit Bank Foundation Finca and the Catholic University. In addition, we are working with the local government to support farming by improving farming and irrigation facilities, greenhouse farming and alpaca fiber processing facilities.

As a result, we received USD 239,302 from the IICA, Finland Ministry of Foreign Affairs which we used to provide more renewable energy to agricultural areas and improve energy self-sufficiency. Also, we provided quality education service through our education platform, 'My School Program' providing web-based training as well as an information platform. ProSynergy supported philanthropic activities of other companies through projects such as building the mini Yachaywasi in connection with Pluspetrol funds, providing agricultural support with the alpaca fiber processing facilities. We plan to register for formal social contribution projects with government bodies to become autonomous by providing funds.

- 1) Yachaywasi: Quechuan language meaning Yachay (Teaching) + Wasi (Place), a forum for education
- 2) IICA (International Institute for Cooperation in Agriculture) Fund: A fund established to contribute to providing renewable energy to low-income agricultural regions in the world

Yachaywasi business model



UN SDGS



UN SDGs(Sustainable Development Goals)

SK innovation sincerely agrees with the objective of UN SDGs and will work together to achieve these goals. We have selected part of the 16 sustainable development goals and actively promote relevant practices. We will gradually improve our execution by expanding out to more related targets.

Type	SK innovation activities
<p>Goal 1 End poverty in all its forms everywhere</p>	<ul style="list-style-type: none"> • Promote agricultural technology for farming households in Peru and help create a profit model • Provide meal boxes to children skipping meals all over the country by participating in Happiness Alliance • Support residents' livelihoods through the mangrove restoration program in Vietnam • Provide meal boxes to the socially disadvantaged in Singapore
<p>Goal 2 End hunger, achieve food security and improved nutrition, and promote sustainable agriculture</p>	<ul style="list-style-type: none"> • Alleviate social isolation of elderly living alone and restore self-worth • Improve sociability of children with growth disabilities • Promote self-support for children with growth disabilities, support mental stability programs for carers of elderly living alone
<p>Goal 3 Ensure healthy lives and promote well-being for all at all ages</p>	<ul style="list-style-type: none"> • Provide education programs in areas of operation within the US • Study support for socially disadvantaged students in the Incheon area • Run 'My School' program in Peru to provide quality education service to low-income students
<p>Goal 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p>	<ul style="list-style-type: none"> • Provide mental stability program targeting carers for elderly living alone
<p>Goal 5 Achieve gender equality and empower all women and girls</p>	<ul style="list-style-type: none"> • Purify ocean water by planting mangroves in Vietnam
<p>Goal 6 Ensure availability and sustainable management of water and sanitation for all</p>	<ul style="list-style-type: none"> • Provide energy through the Cook Stove distribution project in Myanmar
<p>Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all</p>	<ul style="list-style-type: none"> • Create jobs by developing social enterprises
<p>Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p>	<ul style="list-style-type: none"> • Climate action through restoring mangrove forests in Vietnam • I Green We Green Campaign to protect the world environment
<p>Goal 13 Take urgent action to combat climate change and its impacts</p>	<ul style="list-style-type: none"> • Conserve marine ecosystem by restoring mangrove forests in Vietnam
<p>Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development</p>	<ul style="list-style-type: none"> • Conserve biodiversity by restoring mangrove forests in Vietnam
<p>Goal 15 Protect, restore and promote sustainable use of terrestrial ecosystems and halt biodiversity loss</p>	

SUSTAINABILITY MANAGEMENT

Uncertainty in business environment is growing not only because of the growing changes in the traditional oil and chemicals industry but also from the 4th Industrial Revolution. This environment calls for a strategic direction based on selection and focus as well as seeking new options of growth and executing the options. SK innovation is improving its company value immensely through bold innovation and strategic investment in the form of global partnering and M&A.

Board of Directors

SK innovation declared 'BOD-driven Management' in 2004 to establish an autonomous and efficient form of governance. By appointing a new BOD since then, SK innovation has continued to build a leading governance structure. SK innovation BOD intends to make professional and balanced decisions based on a transparent process which pursues the Happiness of all stakeholders, including customers, employees and shareholders. The basic responsibilities of BOD are: strategic decision making, advising and monitoring of major business issues. This will allow us to respond preemptively to the quickly changing business environment and strengthen autonomous, responsible management based on the BOD. This 'Proactive BOD' will maximize our company value.

Composition of the BOD

The board of SK innovation officially appointed Kim Jong-hoon, the independent director as Chairman in March 2019 to establish a leading governance structure. 63% of the entire board is made up of independent directors recommended by the

Recommendation and Nomination Committee, so that the board can fully play its role in effective monitoring of management. As of 2019, five out of eight board members are independent directors.



Lee Myung-young Director | Choi Woo-seok Director | Kim Jung-gwan Director | Kim Jong-hoon Chairman/Director | Kim Jun President & CEO | Kim Joon Director | Ha Yun-kyoung Director | Yu Jeong-joon Director

BOD Status

Position	Name	Since	Attendance Rate	Career Highlights	Committee Membership
Chairman/ Independent Director	Kim Jong-hoon	March 2017	93%	Current) Honorary ambassador/Chairman, International Relations Commission, KSOC Former) Minister for Trade, Ministry of Foreign Affairs and Trade Former) Chief Delegate for the Korea-US FTA Former) Member of the 19 th National Assembly (Trade, Industry & Energy Committee)	<ul style="list-style-type: none"> Chair of CSR Committee and HR Committee Member of Audit Committee
	Kim Jung-gwan	March 2018	100%	Current) Advisor of Bae, Kim & Lee LLC Former) Vice Minister, Ministry of Knowledge Economy Former) Executive Vice Chairperson, KITA Former) Deputy Chair person, FEZ Committee	<ul style="list-style-type: none"> Chair of Recommendation and Nomination Committee Member of Strategic Planning Committee and Transparent Management Committee
Independent Director	Kim Joon	March 2016 (Re-elected in March 2019)	93%	Current) Chairman & CEO, Kyungbang Current) Chairman, Spinners & Weavers Association of Korea Current) Director, East Asia Foundation Former) President, The Korean Chapter, Young Entrepreneurs' Org.	<ul style="list-style-type: none"> Chair of Strategic Planning Committee Member of Audit Committee and HR Committee
	Choi Woo-seok	March 2018	92%	Current) Professor of Accounting, Korea University Business School Former) Advisor, Ministry of the Interior and Safety Former) Executive Director, Inspiring Insight in Business Society Former) Assistant Professor, California State University	<ul style="list-style-type: none"> Chief auditing member of Audit Committee Member of Recommendation and Nomination Committee and CSR Committee member
Executive Director	Ha Yun-kyoung (Female)	March 2016 (Re-elected in March 2019)	100%	Current) Professor, Department of Basic Science, Hongik University Current) Vice-president/Director, Korean Chemical Society Former) Director, Association of Korean Women Scientists and Engineers Former) Committee member, Korea Industry Standard Council	<ul style="list-style-type: none"> Chair of Transparent Management Committee Member of CSR Committee
	Kim Jun	March 2017	100%	Current) President & CEO, SK innovation Current) President, Communication Committee of SK SUPEX Council Former) President & CEO, SK energy	<ul style="list-style-type: none"> Member of Recommendation and Nomination Committee Member of Strategic Planning Committee
Non-executive director	Yu Jeong-joon	March 2017	86%	Current) President & CEO, SK E&S Current) President, Energy & Chemical Committee, SK SUPEX Council Former) President, SK Global & Growth Promotion Division, SK holdings	<ul style="list-style-type: none"> Member of HR Committee
Executive Director	Lee Myung-young	March 2019	N/A (Newly appointed)	Current) Senior Executive Vice President (CFO), Finance Divisional Group, SK innovation Former) Senior Executive Vice President (CFO), Mgmt. Support Office, SK hynix	<ul style="list-style-type: none"> Member of Transparent Management Committee

* Attendance Rate: 95.5% (As of December, 2018)

Appointment process of directors

SK innovation established a selection process for internal and independent directors which guarantees objectivity and fairness. The HR committee reviews the qualities and qualifications of executive and non-executive director candidates, then selects those they wish to recommend at the annual shareholders' meeting. In the case of independent directors, the Recommendation and Nomination Committee decides on a direction and processes every year to make their recommendations of candidates. Then, a candidate pool is selected for multiple in-depth deliberations for the final candidate to be recommended at the annual shareholder meeting. During the discussions, we assess the candidate comprehensively. Compliance with the Standard of Independence is a must and we also consider expertise and loyalty, business mind, social reputation, board diversity based on company standards such as gender, age, nationality, race/ethnicity and the business environment at the time of appointment.

Evaluation Criteria of Independent Directors

Expertise	Expertise and experience in corporate management, and experience as an executive or independent director
Commitment	Able to attend over 95 percent of BOD & Committee meetings, and make real contributions and advice on current issues
Managerial mindset	Leadership acquired from experience in serving as the CEO of a large company or head of an organization
Independence	No conflicts of interest with management and shareholders; can make thoughtful, independent decisions
Social reputation	A strong reputation recognized by many company stakeholders
Morality	A high level of morality that sets an example for others, with company-based objectives taking precedence over personal gain
Diversity	The diversity of the board, including gender, age, nationality and ethnicity, has been taken into consideration
Others	Current business environment and issues at the time of nomination



Standard of Independence for independent director

SK innovation ensures the independence of its independent directors to guarantee shareholder interests are reflected in a balanced manner and a fair and transparent decision-making process is followed. To this end, SK innovation establishes and complies with the independent standards for major disqualification reasons for independent directors in compliance with the Commercial Act.

Grounds for Disqualification of SK innovation Independent Directors

- Directors, executive directors, and employees who are engaged in the regular business of a related company, or directors, auditors, executive directors and employees who have engaged in the regular business of a related company within the past two years
- The principal, his/her spouse, lineal ascendants, and lineal descendants, in cases where the largest shareholder is a natural person
- Directors, auditors, executive directors, and employees of the corporation, in cases where the largest shareholder is a corporation
- The spouses, lineal ascendants, and lineal descendants of directors, auditors, and executive
- The directors, auditors, executive directors, and employees of a parent company or a subsidiary company of the relevant company
- Directors, auditors, executive directors, and employees of a corporation which has a significant interest in a related company, such as business relations with the company
- Directors, auditors, executive directors, and employees of another company for which directors, executive directors, and employees of a related company serve as directors and executive directors

Establishment of corporate governance charter

SK innovation will keep raising the value of the company to continuously create shareholder value. We aim to grow with society through social value creation. In addition, we are working to create harmony and balance for all stakeholders to be happy. As we understand the importance of securing a healthy and transparent governance structure to realize this business philosophy, we established ‘SK innovation Governance Charter’ to pursue the world’s top governance structure.

Expertise of the BOD

Independent directors actively participate in governance and business-related training programs in Korea and abroad to enhance their expertise. We intend that our independent directors continuously attend programs held by the most respected corporate governance organization NACD (National Association of Corporate Directors) and ICGN (International Corporate Governance Network). We are also improving their level of understanding of our company and operation through visits to business and manufacturing sites and focused

orientation on company headquarters and regional sites targeting newly appointed independent directors.

In addition, SK innovation BOD review risks through audit reports and conduct ‘Strategy Sessions’ biannually or quarterly to improve the expertise of issue and risk management capacity. The ‘Strategy Sessions’ are made up of reports on the strategy of the entire company and main business projects, implementation trends and major risks. Material to support overall decision-making such as risk-management methods are provided as well. In addition, we invite experts to hold seminars in legal, communication and other fields relating to major issues of the management environment in Korea and abroad.

Activities of the BOD

SK innovation’s BOD reviews management plans and medium- and long-term strategies (i.e. the To-Be Model) each year. The board sets the direction of sustainable growth by holding active in-depth discussions about internal and external business environment by business areas, including oil, chemicals, and EV batteries. The board holds regular monthly meetings. To ensure that directors can sufficiently review the agenda, meeting materials are provided at least a week to five days before a board meeting and two days before a Committee meeting. In addition, the board also holds ad-hoc meetings for agenda items that require a quick decision. The Board aims to lead the way in the company’s professional and transparent business activities. In 2018, 76 agenda items were put forth to the board in 14 meetings, and Committees discussed 60 agenda items over 23 meetings.

Strengthening on-site activities • The board of SK innovation frequently visits major business sites at home and abroad to improve the knowledge to make decisions based on expertise. We hold board meetings at business sites where major investment projects or operations on our strategic agenda are being conducted to understand the current status of operations accurately for decision-making. Furthermore, we are strengthening on-site operations by creating more chances to listen to the voice of the workforce in diverse settings such as special company lectures for executives and employees as well as volunteer work.

On-site board meeting in China and Seosan • In 2018, The board visited Headquarters of SK global chemical located in Shanghai as well as Wuhan Ethylene JV, a



1. Special Lecture for Executives & Professional Leaders
 2. Volunteering CSR activity with employees
 3. On-site board meeting in Battery Production & Tech. Center
 4. Board visit to Wuhan Ethylene JV in China

Status of Subcommittees of BOD

Committee	2018 Major Activities		
	Meetings held	Agenda	Major Agenda
Auditing Committee	6	28 items	• Understand and revise Internal Accounting Management policy • Results of finalized performance and external audit • Audit performance results
Recommendation and Nomination Committee	2	2 items	• Establish process for independent director recommendation • Recommend independent directors
Strategic Planning Committee	4	6 items	• 2018 short-term management plan • Drive investment/increase of capital by business
Human Resources Committee	2	6 items	• Recommend Executive directors • Set limit for directors’ compensation, option to buy stocks, etc.
Transparent Management Committee	8	15 items	• Transaction with affiliated financial company • Build/publicize on-site branch in China
CSR Committee ²⁾	1	3 items	• Strategy for CSR • Publish Sustainability Report 21

2) The CSR committee is composed solely of independent directors to assess various agenda items from an objective and broad perspective. The committee regularly participates in company CSR activities to improve their power of execution.
 • Major items for review: Sustainability report plan and results, status of CSR activities, methods to support stakeholders with communication, review of company policy/program/practice that may impact safety, health, environment and other social issues, ways the board can participate in CSR activities, status of other major CSR issues and execution, better methods to operate board-committee.

joint venture between SK global chemical and Sinopec Group. Also the board had an on-site meeting and field tour at Battery Production & Tech. Center in Seosan, Korea. By inspecting major business sites and reports on core performances and plans which enhanced the board’s understanding of business which would lead to more accurate and effective decision-making. In addition, the board visited the Seosan Battery Factory, which is the center of SK Innovation’s EV battery production, and directly monitored the growth strategy and direction of the business and, examined new production lines and construction sites.

BOD performance evaluation

The BOD conducts self-evaluation on composition, role, responsibility, and operation-related matters. The results of this assessment are published in the annual report. The results and opinions derived from the assessment are best reflected in designing BOD management plan to contribute to a developing operating method. In addition, the HR Committee reviews the compensation limit for directors extensively, delivers the information to the board, then to the GSM where the limit is ultimately set in order to practice a fair compensation policy.

In addition, we take part in the annual ESG assessment conducted by Korea Corporate Governance Service (KCGS) for maximum accuracy in understanding our governance. Our BOD has been recognized inside and outside the company for its excellent performance, and receiving Grade A in governance assessment in 2018 is one of these recognitions.

BOD subcommittees

SK innovation operates six subcommittees under the board. All chairs of the Committees are independent directors, and over half of the members of each committee are independent directors¹⁾ to ensure independence and transparency in decision-making. In addition, each committee conducts previews and discussions prior to any decision-making at the board meeting, thereby ensuring full understanding of the topics and enhancing the efficiency.

1) Audit Committee and CSR Committee consist of independent directors only

Risk Management

The global energy industry is facing various risks due to rapid changes in the business environment. Investors are demanding solutions to the risk the traditional oil, gas producers and refineries are facing due to climate change. Increased social interest in renewable energy and other environmental-friendly energy as well as advances in technology can greatly influence the future of the traditional energy industry and the future profit model. SK innovation will systemize the major risks we face to create the optimal way to monitor and respond to each risk.

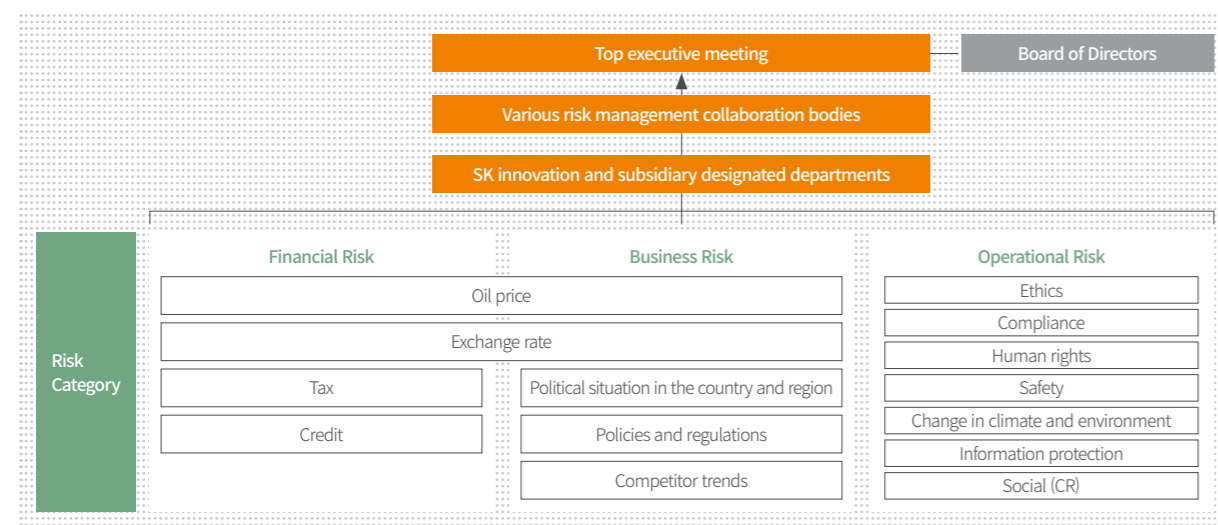
Risk Reporting and Governance

SK innovation manages risk systematically by categorizing risk into finance, industry and operation. Designated departments of SK innovation and subsidiaries manage industry risk. Issues that require executive decision-making are discussed in the risk collaboration body where the subsidiary CEO and department executives participate. Each designated department manages operational risk including subsidiary risk of the company they belong to. When executive or subsidiary decision-making is necessary, the issue is raised during top executive meetings. Furthermore, as SK innovation and its subsidiaries are strongly connected in business operations, several major risks are discussed in top executive meetings where the CEO of SK innovation and five subsidiaries participate and necessary issues are reported to the BOD.

Risk Monitoring

SK innovation conducts analysis and monitoring optimized to each risk factor. On financial risk such as oil price and exchange rates that immediately impact business performance, SK innovation and subsidiaries each analyze short-term direction and medium- to long-term trends based on various economy indices to set and manage a standard appropriate to the according risk factor. In addition, for industry or operational risk, we monitor relevant legislations, policy trends and opinions of relevant officials on a daily basis and share the information through our newsletter and intranet so that all our employees understand major trends and invest voluntary effort to prevent risk.

Risk Management System



Emerging Risk

SK innovation regularly analyzes environmental and social changes to draw long-term risk factors that influence business operations. We then go on to build and execute an effective solution.

Emerging Risk	Various global regulations and fluctuating oil price	Fairness of business relations and product sales process	Climate change
Business Context	The oil price continued to rise from early 2015 and recorded USD 76 per barrel (based on WTI) in October 2018. However, market uncertainty still lingers such as trade protectionism trend and the geopolitical situation of the Middle East. The oil price depends on the global economy as well as supply and demand which are influenced by force majeure, issues with operating business sites and other factors. The traits of regional government also play a big role. Countries like Korea rely heavily on oil imports and are easily influenced by the governments of countries that provide oil. In addition, global regulations are becoming stricter which will increase the potential impact of policies set by the governments in these regions.	Fair trade including ethical operations is a basic requirement to conduct business activities. Importance of fair trade is growing in transactions with oil companies as well as relations between oil companies and service stations and rationality in oil price setting that can arise from these relations. SK innovation holds a particular market share which results in high transaction volume and various business risks.	Since the adoption of the Paris Agreement in December 2015, interest in climate change is growing in all sectors of the environment and society. Negative views on the use of fossil fuels which is the cause of greenhouse emissions and concerns about fine dust are resulting in more and more interest on the topic every day. The use of fossil fuels will ultimately decrease as governments and automobile companies are implementing various policies like promoting sales of electric cars and cutting sales of internal-combustion engines.
Risk Impacts	The oil price and production cost of petroleum products change depending on the global economy. This can lead to fluctuations in profit, cash flow and profit structure. Change in oil price since order date to receiving date can cause crucial financial influence due to heavy reliance on oil imports. Various government regulations such as oil imports and sales, or product standards for petroleum goods must be considered for business operation. Violating relevant policies such as harmful emissions can result in financial damage. Furthermore, Europe, US as well as emerging nations like China are strengthening relevant regulations which is yielding new opportunities in business sectors such as lubricants production.	SK innovation can engage in business with its subsidiaries and various affiliates of SK Group. These transactions may ultimately violate relevant monopoly regulation and fair trade policies. Unfair support between affiliates can lead to punishment and fines which are not only a financial problem, but can be detrimental to the reputation of the business. Furthermore, the distrust consumers have towards oil price fluctuations can negatively impact brand loyalty which calls for active communication regarding this issue.	Oil refining, transporting, distributing and all relevant areas require increased investment and higher production cost in order to decrease greenhouse emissions. The World Bank has announced its termination of oil mining from 2019 and we expect other long-term financial risks to come along with climate change. Korea has also implemented the emissions trading policy resulting in emissions credit purchasing costs as well as cut in investment and increasing production costs. As the government also strengthens regulations to eliminate fine dust, investment in facilities is continuing to increase. Also, the government's policy to spread electric cars is resulting in the production of electric, hydrogen and hybrid cars which can replace gasoline and diesel cars made by automobile manufacturers. This can cause a negative impact like the continuing fall of fossil fuel sales. However, we also anticipate fast growth in the electric car battery market thanks to the rapidly growing electric car market in Korea and abroad.
Mitigation Actions	We plan to secure business competitiveness to grow into a global trading company by implementing our optimization method that utilizes market dynamics in diverse methods. In addition to building new desulfurizing facilities to meet stronger government regulations in the region, we are continuing to develop high-quality lubricants.	SK innovation has made it mandatory for any affiliates engaging in business to cooperate with our business compliance team to regularly monitor potential for unfair support. We forecast that regulations on unfair trade acts between conglomerates and medium- to small-size companies will become stricter. In response, we are gradually strengthening our watch on cases of abusing superior authority and other unfair trade acts between suppliers.	SK innovation has forecast risk depending on climate scenarios to design a response strategy in order to respond efficiently to emissions trading. We have created a procedure for emissions trading operation that stipulates how to comply with or respond to legal obligations regarding emissions trading which is running today. We are also securing carbon credit through external operations to improve energy efficiency in work sites, transform fuel source so that we can stably fulfill our duty to actively cut greenhouse emissions and submit carbon credit. In addition, we are increasing research and investment in developing long-distance electric car batteries and next generation batteries as well as building production facilities to respond in advance to the era of energy transformation.

Ethical Management

As legal and social regulations on ethical management are broadening, the scope and awareness of ethical management is also growing. The ethical management of SK innovation is not simply perceived as a method to prevent unethical actions of employees but one to enhance the company's ethical standards to gain the trust of stakeholders and pursue sustainable growth and development.

Ethical Management Principles

SK innovation has enacted the Code of Ethics as the standards of correct actions and value assessment based on SKMS (SK Management System). The company also presents specific standards for making judgements through the Code of Ethics Guidelines. All employees of SK innovation and its affiliates (foreign or domestic) are obligated to comply with the Code of Ethics. It is recommended for shareholders of investment companies or business partners that trade with or are in contract with SK innovation to comply with the Code of Ethics.

In addition, we have created an FAQ for Code of Ethics Guidelines with a case-based behavioral standard to resolve any inquiries employees may have. We also plan to create and distribute an FAQ fit for circumstances of global employees.

Promote Employee Ethical Awareness

Ethical training program

SK innovation conducts ethics training continuously targeting all employees, even those abroad to internalize ethical management in employees. To improve concentration and understanding for training, we have created new training material composed of basic ethical management terms, dilemma situations and quizzes. The material includes English or Chinese voice-overs for local employees in foreign branches.

Ethical management practice workshops

Every year, SK innovation hosts an annual Ethical Management Practice Workshop led by leaders to discuss ethical dilemmas and risk case studies. In 2018, we conducted workshops by organization (286 groups) on the selected topics (available topics of audit cases of the past 3 years, internal ethical dilemmas and respecting dignity among employees).

Survey and commitment for practicing ethical management

SK innovation conducts annual surveys to gauge employee awareness of ethical management and detect weaknesses in our ethical management policy and culture. In 2018, 80% of all employees including foreign branches participated in the survey. Major items revealed through the survey are transferred to the relevant department for collaboration before guiding employees. After the survey, we obtain Ethical Management Commitment from employees to promote awareness for ethical business practice.

2018 Ethics Training Performance (Unit: number of employees, hours)

Classification	Number of Participants	Hours of Training
Offline training	1,533	991
Online training	6,556	2,185
Total	8,089	3,176

Activate Communication for Ethical Management

We operate communication channels such as the Ethics Consultation and Ethical Management Website for better monitoring and management of ethical management. Through the channels, we publicize our ethics regulations and register reports or consultation on unethical practices. In addition, we operate a page for ethical management on our company intranet for active communication on the subject between employees. By sharing major ethical issues that employees can face during work or publicizing unethical happenings in 2018, we have improved awareness of ethical business practice.

Result of ethical management reporting

There were 130 cases of reporting or consultation of ethical management as of 2018. By excluding basic inquiries, errored reports, reports on other subsidiary companies or duplicate cases, the total number of cases comes to 61. Reported contents are investigated and transferred to relevant departments. For consultations, we offer answers to inquiries and transfer complaints to the customer service department to be resolved. Out of the 31 reported cases that we investigated, 4 were proven to be a breach of Code of Ethics (Receipt of entertainment by supplier). Relevant employees were punished according to regulations through the vote of the punishment by HR Committee. One case was a breach of our regulations (covering up accidents) by a supplier which we sanctioned accordingly.

Number of Reports Consultation on Ethical Management (Unit: Case)

Number of Cases by stakeholder

Type	Report	Consultation	Complaint	Total
Customer			13	13
Supplier	19	2	1	22
Employees	6			6
Others/Anonymous	15	5		20

Number of Cases by Treatments

Type	Reports
Investigation (Audit)	31
Transferred to Relevant Department	27
Others (Unconfirmed or dismissed)	3

Create Transparent Supply Chain Ecosystem

Conduct research on exploitation of authority

As we forecast that stricter measures will be taken on unfair trade acts, we plan to gradually strengthen monitoring of unfair trade acts such as overusing authority for transactions. In line with this plan, we intend to conduct surveys on incidents where authority overused their power against domestic suppliers and client companies to detect any cases where we overused authority or violated regulations of ethical management. In addition, to better understand the current situation, we will visit suppliers to conduct interviews and guide them on our ethical management activities.

Establish healthy transaction culture

'Say No to Gifts for Holidays and Promotions' is SK innovation's campaign targeting to suppliers and external stakeholders to strictly prevent any possibilities of inappropriate transactions. Any gifts accepted due to unavoidable reasons must be returned and gifts which are difficult to return are to be used for social contribution activities. In addition, we strictly prohibit donation and support using company assets and budget for political objectives in accordance to the Korean legislation on political funding and SK innovation's Code of Ethics Guidelines.

Performance of Ethical Consultation Center or Ethical Management Website (Unit: Case)



Status of Disciplinary Action for Breach of Ethical Management (Unit: Case)

Reason for Disciplinary Action	Number of Cases
Sexual Harassment ¹⁾	2
Receipt of Entertainment	4
Breach of Code of Ethics	3
Breach of Regulation on SHE (safety, health, environment)	3
Job Negligence	6
Total	18

1) Disciplinary action on employee responsible for 2017 incident

Fair Trade Compliance Management System

To drive fair competition within the supply chain and enhance transparency of transactions, SK innovation implemented its Fair Trade CP (Compliance Program). In addition, we strictly monitor all affiliated companies of SK innovation by defining detailed management codes for 7 major compliance items.

Fair trade management organization

SK innovation and its four subsidiaries (SK energy, SK global chemical, SK lubricants, and SK ie technology) have appointed Chief Compliance Officers (CCO) to operate and manage the CP for each company. The CCO designs the CP implementation plan and directs the implementation process. Biannually, the CCO reports the plan and performance of CP to the BOD.

Response to external regulation on fair trade

The Fair Trade Commission intensified its monitoring of conglomerates using technology of small and medium enterprises, the process of conglomerates demanding technological data

from small and medium companies as well as intensifying sanctions for violations of relevant regulations. In response, SK innovation reviewed its subcontract process and status of sharing or using technology-related data to expand the control scope with suppliers. We plan to build and operate a technology data management system during the first half of 2019 based on the results of the review.

The Fair Trade Commission also modified its official review method for conglomerate groups switching from a sample research every 4-5 years to full annual inspection. The commission also greatly intensified items for inspection. In response, SK innovation has completed practical disclosure training for employees who are in charge of disclosures in subsidiary and sub-subsidiaries. Also, we have minimized data errors through comparing the entire contents and contract status filed between affiliated companies. As a result, we finalized our review with no violations during the investigation term (2015 to 2017). Furthermore, SK innovation is responding to global trends where the number of overseas cartel cases or other violations in regulations of business competitions that occur

offshore is increasing by conducting offline training for employees in global offices and comprehensive interviews targeting relevant employees.

Strengthening internal monitoring for fair trade

Toward the Fair Trade Commission’s movement to strengthen monitoring of internal transactions of conglomerate firms by investigating profit structure or internal transaction of the holding company, SK innovation responded by improving annual contract review process with SK Corp., its holding company, as well as preventing any possibilities of violating regulations. On top of that, since ‘Enforcement Decree of the Fair Agency Transactions Act’ settled down after the conduct in 2016, we have improved the internal management system of agency transactions and conduct on-site inspections of main agency departments of SK innovation affiliates and providing training on factors that are not up to standard.

Internalizing Awareness of Fair Trade in Employees

Declaration to practice fair trade

SK innovation made a commitment for fair trade in March 2019 to promote the compliance awareness of its employees and reaffirm its determination to fair trade compliance. This year’s declaration targets not only the entirety of employees in the 6 SKI affiliate companies but also local employees of the companies’ foreign branches. The declaration was written in three languages, Korean, English and Spanish, and distributed to every site accordingly.

We will conduct the declaration every year for new employees and other relevant personnel to make sure it is observed instead of being a one-off event.

Fair trade compliance training

We have conducted an internal fair trade compliance training, which covered regulations and issues that employees will have to consider in their work, with the goal of increasing awareness of the compliance with fair trade regulations. In terms of offline training, the courses are not only related to fair trade in general, but rather specific topics for each organization’s business. Similarly, there is a basic online course for all employees, as well as advanced courses designed for employees in marketing departments. Along the same lines, we conducted a two-tier online training course composed of general training for all participants as well as an advanced course agency transaction for those in organizations where agency transactions occur. In addition, managers of fair trade affairs are encouraged to participate in Fair Trade research seminar and external training to develop. Finally, we conduct training for our global business sites so that our operations comply with fair trade both in Korea and abroad.

7 Major Items of the Fair trade Compliance Program



Fair trade voluntary compliance education in our global business site

Status of Fair Trade Compliance Training

Timing	Subject	Target
January	Orientation for new employees – Fair trade training	New employees of 2018
March	Training on regulating cartel, unfair trade acts and Fair Agency Transactions Act	SKE Retail Sector
March	Fair trade training for B2C salespersons (unfair trade acts, Fair Agency Transactions Act)	SKE B2C Sector
June	Fair trade training regarding Fair Agency Transactions Act	SKGC Polymer Yeongnam Office
July	Training on regulating cartel, unfair trade acts and Fair Agency Transactions Act	SKE Network Sector
September	SUPEX Spirit Camp - Training on fair trade	Group training subjects based on year of employment
September	Training on Fair Agency Transactions Act	Relevant job conducting employees SKI affiliated companies
October	Partnership Seminar for mutual growth (education on cartel)	Partnership companies
November	Singapore Fair Trade Seminar	Singapore offices of SKI affiliates (6 companies)

Employees

Building a system to strengthen the capabilities of employees who are the core of business operations and creating a healthy organizational culture is crucial for bringing new changes and innovation to the organization. SK innovation aims to cultivate employees who will lead a Deep Change for a 'stronger and better company' by 'not only improving what we do well but succeeding in what we have not done'. To accelerate this process, we will continue to improve communication with our employees to create 'innovation of work approach' between leader and members and establish a 'culture to speak one's mind' early on.

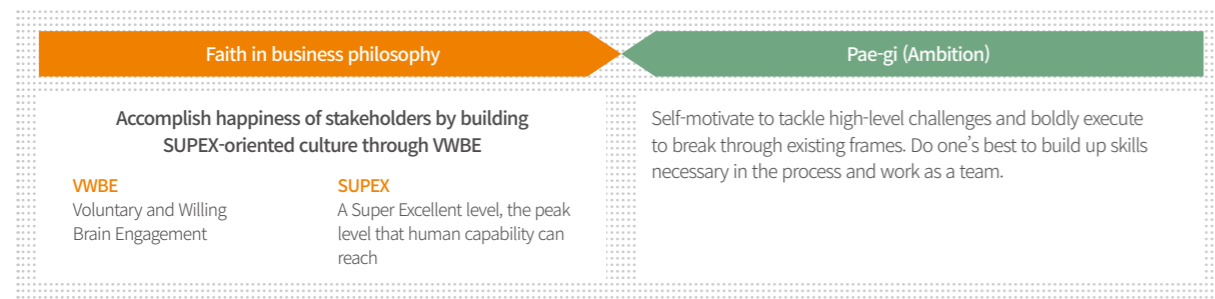
Cultivate Talent

System to cultivate talent

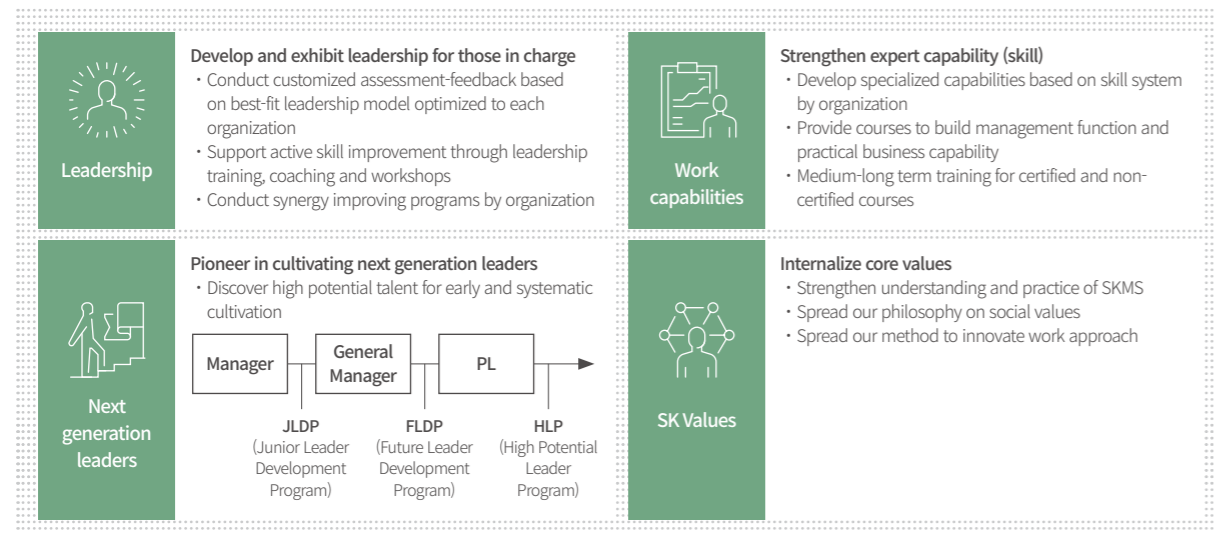
SK pursues 'Talent that executes 'ambition' with faith in our business philosophy'. We run a talent training system based on three pillars: leadership, professionalism and core value so employees can

continue to grow and improve their capabilities so that we can ultimately build talent that SK innovation believes in.

Talent we pursue



System to cultivate talent



Major HRD Programs

Customized training program • SK innovation runs diverse businesses including production and sales of petroleum products, trading and manufacturing of batteries and materials. Each subsidiary has a system to cultivate talent according to the knowledge and skills that the industry requires. In addition, we run a systematic curriculum for every job type such as engineers, researchers or technician trainees and provide a training system that employees can plan themselves and participate in of their own initiative. Furthermore, we define the best-fit leadership optimized to each organization as every business and establishment requires a different type of leadership, on which we base our assessment and feedback of leadership effectiveness. Through this method, all leaders receive a customized leadership guide and participate in training programs by individual need to enhance leadership qualities.

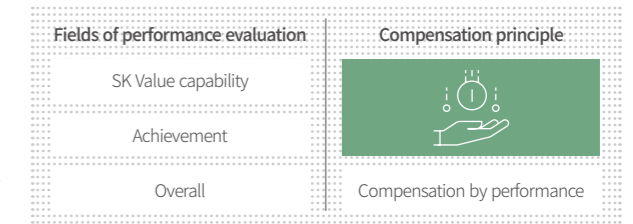
Expertise upgrade program by field • We provide an online and offline course to cultivate experts who are equipped with an integrated perspective and decision-making skills in their field. The program consists of 7 courses by business function including legal, purchasing and PR, 4 business fields including M&A, contracting and negotiation, and 8 online courses including management, leadership and languages. We provide a theoretical basis for experts in various fields to understand business functions and frameworks by business sector in order to grow into leaders who can make strategic and comprehensive decisions.

Skill development through leaders and internal professionals • We conduct skill transfer programs on various topics that can contribute to the performance of organizations where leaders and experts within the company participate. Through 'leaders' direct lectures' from leaders and 'knowledge sharing seminars' from company experts, leaders and experts summarize

their knowledge and experience. Employees use the opportunity to acquire vivid on-the-job knowledge to apply to their own work which can lead to performance.

Fair performance evaluation and compensation

SK innovation conducts regular meetings between team directors and team members as well as check-up sessions on an organizational level. We practice a systematic and fair evaluation policy which assesses employees' capabilities, traits and accomplishments on various dimensions. The results are finalized after an auditing process so that employees are more accepting of the results. We also run a wish system through which employees can raise objections. Evaluation results are used for promotions, training and compensation, and we provide differentiated compensation by performance. Our compensation policy is based on comprehensive assessment on individual performance as well as long-term and short-term goals related to company sustainability. We do not differentiate compensation based on unfair evaluations based on gender, age or level of education.



Performance evaluation reflecting SV (Social Values)

Generally, performance evaluation of a company is based on financial performance and optimized to motivate goals such as revenue growth. In 2019, SK innovation broke through existing customs and added SV to our KPI (Key Performance Indicators) to include social values when evaluating performance of the organization and employees. We anticipate this change will create an environment for employees to actively participate in creating social value as well as motivating them.

CLX University

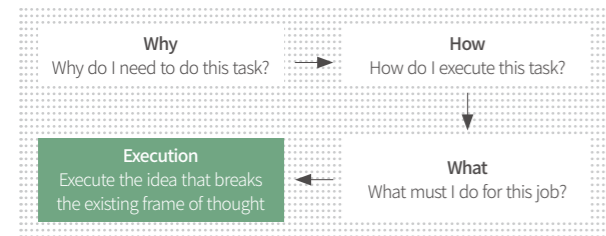
SK innovation runs 'CLX University', a unique system for technology capability training with the goal to cultivate engineers with global competitiveness. CLX University annually provides 70 general courses, technology seminars on 15 topics and core capability courses in 258 subjects. We also provide a 5 month curriculum for new technicians and quarterly special lectures on leader initiatives where all leaders participate. Our textbooks are based on our 57 years of experience and know-how in running manufacturing facilities and we closely manage our school affairs. The CLX University contributes to improving employee capabilities, cuts fixed costs and improves our margins, leading to performance enhancement through Input SUPEX.

Innovating the Way of Work

Spread culture to innovate way of work

SK pursues ‘Talent that executes ‘ambition’ with faith in our business philosophy’. We run a talent training system based on three pillars: leadership, professionalism and core value so employees can continue to grow and improve their capabilities so that we can ultimately build up talent that SK innovation believes in.

Work Approach Innovation Practice Process



Work approach innovation workshop • We developed the ‘Work Approach Innovation Workshop 2.0’ through Blue Ocean Shift Tool to explain the work approach innovation in an easy way and spread the detailed method of practice. We took applicants and conducted the workshop.

Work approach innovation campaign • We promoted the practice of work approach innovation by connecting our campaign with the CEO’s message and receiving various cases and ideas on the topic, which led to actual participation by employees.

Work approach case book and letters • To promote understanding as well as pride for the Work Approach Innovation, we gathered such cases and published them as a book. In addition, to help employees practice innovation, we selected major cases and sent out letters in the form of card news.

Creating Work-friendly Company Culture

Welfare

Leave policy • Based on the principle that taking time off is an individual right, we have terminated the existing system where leave needed to be approved. Now we conduct a ‘Report Leave System’ where employees can use their leave based on their vocation and responsibility. We promote big breaks that exceed two weeks off or sandwich holidays so that employees can be well rested.

Happiness pension policy • We run a happiness pension policy, separate from our existing retirement fund policy to support the stable and happy elderly life of our employees. Every month, we match the company support fund with the amount the employee provides and make a deposit into the retirement pension account so that employees can manage their retirement funds in a more stable way.

Welfare policy • We provide various welfare programs for the happiness and comfort of employees at work and at home.

Type	Contents
Monetary support	SK Happiness Card, support individual pension
Health care	Support for regular health checks and medical fees (includes partner and children)
Housing support	Support for house purchase, deposit loan, dormitory and living expenses in case of regional work
Family and child care support	Holidays and care money for celebrations or condolences, maternal and child care leave, nursery or child schooling fees
Hobbies and leisure	Support vacation facilities, condominiums, fitness centers and company club activities
Other	Rewards for long-term employees

CASE. Create a work environment to drive innovation in work method

We created an office space to stimulate ‘sharing and collaborating’ between employees in order to innovate work methods. The new space includes a rest space equipped with a cafe, party room, fitness center and nap space to improve work efficiency and promote collaboration. The space allows employees to fully recharge during work. Instead of seat allocation, employees are free to select seating in a diverse work space depending on work type or personal circumstances. In addition, we utilize IT gadgets to create a paperless office where reports can be made in a timely and efficient manner.



Stimulate communication among employees

SK innovation runs various communication channels for the liberal communication among CEO, leaders, employees and executives. Employees can participate to create a culture of smooth communication. We run various online and offline channels as well as events to promote effective communication.

In particular, we appoint approximately 270 members as ‘iCON* innovation Communication ON), the change facilitator and the bridge to communication between leader and employees to promote truthful communication focusing on our employees. In addition, we host regular Executive-Agile workshops in which every CEO and employee of SK innovation subsidiaries participates. Also, in order to monitor the rate of innovation in organization culture, we conduct regular interviews and surveys, and reflect the results in our business activities or improving internal systems.

Retiree support program

We run a support program for retirees based on our philosophy to create happiness for all stakeholders including to-be retirees, government, labor unions and employees. We include contents that will be of actual help to retirees such as training on economy, social life and health care. Our focus is to promote activity after retirement and liaison with outside expert organizations. We also consider individuals’ values and circumstances to provide 1-on-1 consulting

and group training. Retirees and their partners can participate in the couple retiree support program to celebrate retirement as well as expressing gratitude to the retiree and their families to add meaning to the program.

1. iCON Workshop
2. Retiree support program



Online and offline communication channels

	Operating channels	Contents
Online	tong tong	Run an online board where company members can propose ideas on topics such as operations or regulations or post inquiries. Answers provided real-time to strengthen interactive communication
	Leader’s Blog	Improve employees’ understanding of major business philosophies, business direction and messages to employees through the CEO blog by organizing the contents by topic
	Internal channel	Broadcast internal programs by schedule targeting the entire workforce of SK innovation affiliates. Provide information on executive activities, major business status, activities by organizations and other news from company members to the entire company
Offline	iCON	Acts as the Change Facilitator as well as the company internal messenger. Share opinions on topics where consensus is needed, drive change and propose ideas. Regular communication with leaders to share thoughts on business operations (270 participant as of 2018)
	Happy Walk	CEO, executives and employees participate in various cultural or outdoor activities outside of work to communicate freely and share meaningful time off (Hosted monthly by executive board of each company based on voluntary participation of employees and families)
	Workshop for all ranks	Share business objectives and agenda for change by organization to discuss the topics and provide a forum to propose ideas.
	Leaders’ forum	Monthly lectures from internal and external experts on major business issues of the month, change and innovation targeting CEOs, all executives and directors. Forum to also share business operation status.
	Harmonia	Professional psychological counselors and external experts provide counseling and coaching for life, care, work, and family to members and their families in order to help the development of their mind health and competence.

Female talent support

SK innovation operates W-Network, an internal female panel to prevent unfair practices on our female workforce and to promote a female-friendly work environment. W-Network focuses on increasing female employment and skill training as well as creating a female-friendly work environment. Our efforts were recognized and we received the Presidential Certificate for 'Employment Gender Equality' and the Grand Prize for 'Gender Collaboration'.

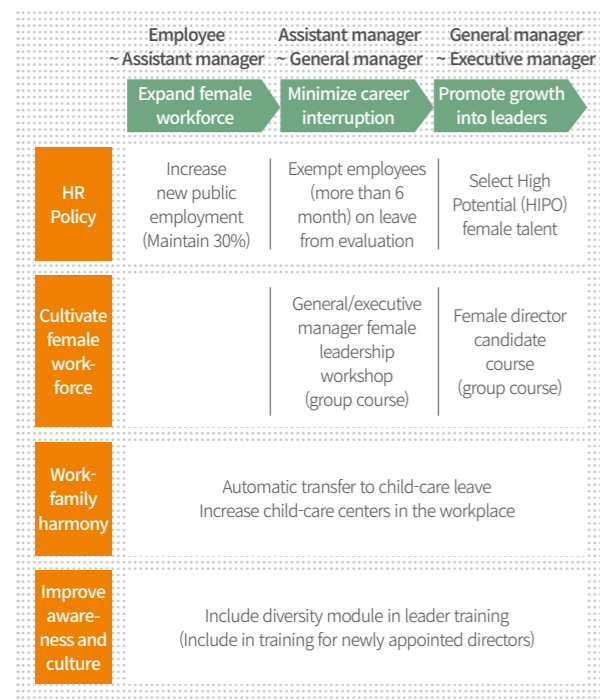
Prevent sexual harassment

SK innovation conducts training sessions to promote awareness of human rights regarding sex and to strictly prevent sexual harassment in the workplace. We continue to provide an annual online training course, Values Curriculum for promoted employees and offline training for new and experienced employees. We also run a sexual harassment consultation center in the company. When a report of sexual harassment occurs, we form an investigation team including a female lawyer. Any employee to be proven guilty is immediately made redundant and we deal with other issues of sex in a strict and serious manner.

Work-life balance

We provide a flexible work environment so that our employees can maintain a stable work-life balance. We implemented the 'Smart Work System' so workers can control their own hours and also minimized meetings and reporting procedures to improve work efficiency. Furthermore, any request for maternity leave request so that employees can raise their children without the pressure of work. We also plan to open an area for breastfeeding as well as a rest space for pregnant females.

Action system to solve female issues by rank



Human Rights Management

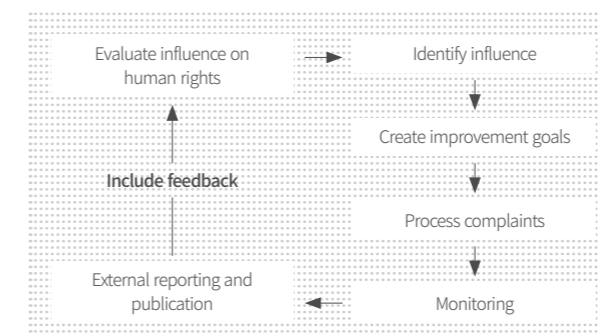
Human rights policy

SK innovation established various policies to prevent direct or indirect violation of human rights or negative influences on human rights in business relations including talent employment and training strategy, regulations on safety, health and environment, ethics regulation, behavioral standards for suppliers and ethical purchasing regulation to strictly comply with human rights principles. In addition, we joined the UNGC (United Nations Global Compact) global sustainability initiative as of October 2007 to fulfill our obligations as a conglomerate citizen and declare agreement with 10 principles in four fields: human rights, labor, environment and anti-corruption.

Human rights risk assessment and due diligence

SK innovation conducts due diligence for human rights targeting employees of SK innovation subsidiaries and suppliers in order to prevent any human rights violations during business operations. We identify human rights due diligence as a process where the company detects and solves any negative effects related to governance, employees, human rights, environment or bribery. SK innovation regularly executes the due diligence process stipulated by international guidelines for actual human rights protection of our employees and business partners. We also ethically report our findings to stakeholders. The procedure is in the following: assessing influence on human rights, identifying the influence, setting goals for improvement, processing complaints, monitoring and external reporting and publication. Through this method, we continuously manage any effects on human rights on work sites. The human rights due diligence conducted in 2019 is stated in detail for the public on our SK innovation website.

Human rights due diligence process



SK innovation Human Rights Declaration

1. SK Innovation respects the dignity and value as human beings for all stakeholders to realize sustainable happiness.
2. Based on the spirit of humanity, SK Innovation makes every effort to maintain a safe and healthy working environment for all of the stakeholders to pursue happiness.
3. SK Innovation supports and follows the human rights protection and labor standards of labor-related international organizations such as UNGC and ILO, and does not discriminate based on any grounds such as gender, race, nationality, religion or age.
4. SK Innovation complies with the labor laws and regulations of each country or region in which human rights policy and the business sites of our company exist, and our company confirms that this policy is the fundamental obligation that all suppliers and business partners who do business with our company must comply with.
5. SK Innovation shall designate a department in charge of human rights management and regularly conducts human rights education for all stakeholders.

Detailed operating instructions

1. **Respect for human rights:** Respect all stakeholders as human beings and ensure that no acts that constitute human rights violations occur.
2. **Prohibition of child labor:** Never employ children and young people under the age of 15.
3. **Working Hours:** Regular work hours and overtime hours are subject to the standards established by the labor relations laws of each country or region.
4. **No Discrimination:** There shall be no discrimination in employment on the grounds such as gender, race, nationality, ethnicity or religion, nor there shall be any discrimination in employment conditions such as wage or promotion for the same reasons.
5. **Prohibition of forced labor:** There shall be no forced labor against free will of the employees by mental and physical restraint including slavery and human trafficking, and the company shall not request for retention of identifications issued by government, passport or work permits in exchange for employment.
6. **Minor labor:** In case of minor under 18 years of age, the company shall employ them by complying with the labor relations laws, and make sure they do not engage in risky and harmful work.
7. **Wages:** Wages of employees shall be above the minimum level set forth by the labor relations laws of each country or region.
8. **Freedom of Association:** The rights to freedom of association and collective bargaining under the labor relations laws and regulations of each country or region shall be guaranteed, and there shall be no disadvantageous treatment for the reason of joining, having activities for or forming a union.
9. **Workplace safety and environment:** The company shall form pleasant working environment by complying with international standards, related laws and regulations and internal regulations regarding working environment and continuously endeavor to protect against safety accidents
10. **Due Diligence of Human Rights Protection:** The company shall sincerely implement human rights due diligence process for actual human rights protection and continuously work to prevent risks and protect human rights.

Social Contribution

SK innovation pursues both social value and economic value based on the Double Bottom Line to bring happiness to stakeholders. We invest our efforts into creating and spreading a differentiated social value to maximize stakeholder value. We continuously innovate to solve fundamental social issues and conduct activities to help the socially disadvantaged.

Operation Structure for Social Contribution

The social contribution system of SK innovation is made of 3 sectors to become a company that creates sustainable happiness in accordance with our slogan, 'Happinnovation' a portmanteau of our company name and our core value, Happiness. The following are the three sectors; 1) Social Innovation to create jobs for the socially disadvantaged through social enterprises and to build an ecosystem to improve

the competitiveness of these companies, 2) Green Innovation for environmental protection to create sustainable environmental value around regional business sites, and 3) Happy Innovation where the company and workforce work together for the betterment of local communities.

Operation structure for social contribution



Value Creation through Social Enterprise

SK innovation drives innovative solutions for social issues through various methods such as discovering and supporting social enterprises and cultivating star social enterprises. In addition, we contribute to local agriculture not only in Korea but in Peru where we operate our business. By 2019, we will also establish an environmental social enterprise in Tra Vinh, Vietnam.

Discovering and supporting social enterprises

SK innovation selected 12 business models over the 5 years since 2013 through a public project to find social enterprises and provided tangible and intangible assets to share our infrastructure so that the enterprises could secure a competitive edge. We helped those organizations mature into social enterprises or social cooperatives. We also supported developing social economic organizations in the Ulsan area surrounding our Ulsan business site to create jobs for the socially disadvantaged as well as providing social programs. In 2018, we promoted the social job creation project with 1% Happiness Sharing fund from our employees.

Status of social enterprise discovery and support project

Objective
Job creation for socially disadvantaged people and support independence through conversion to social enterprise

Project overview
Select business through open RFP's and provide infrastructure investment and consulting to the selected business for three years

Support
Support provided Investment in facilities, training for specialists in legal, labor, accounting and marketing, consulting to transform into social enterprise, training to improve skills for the socially disadvantaged, build sales channels, pro bono support, etc.

Results

- 12 business were converted into social economic institutions
- Jobs created: 300

Legend: ● Star Social Enterprises ● Social Enterprises

Outcome of supporting society and economy in Ulsan

2017	<ul style="list-style-type: none"> Helped 6 companies for Nam-gu center social economy support, business development project <ul style="list-style-type: none"> - CNT Inc, Dream Culture, Leather Studio, Alpha Media, Taehwa River Cheolsae Village Guest House, Yellow Bridge
2018	<ul style="list-style-type: none"> Aided 4 companies for Nam-gu center social economy support, business development project <ul style="list-style-type: none"> - Petite Maman, The Korea Speech, Bean Art Lover, Human Drone Development Aided project to create social jobs with our Employee 1% Happiness Sharing Fund <ul style="list-style-type: none"> - Ulsan, Malgeun, Kokkirigongjang, Yedang social cooperative

Cultivating Star Social Enterprises

SK innovation judged that the nature of a social enterprise hinders it from securing business competitiveness and sustainability. We understood the need to cultivate social enterprises that can first survive and be independent. So as of 2017 we changed our direction to cultivating star social enterprises. After considering growth potential, social value and other factors of the business models that we were cultivating, we selected Chunnuri Food and Morethan as Star social enterprises (STAR SE) and developed them. We actively shared our assets and infrastructure such as business consulting, strengthening product competitiveness, advertising and marketing. This allowed us to improve their business performance so they could mature into social enterprises. We have selected Usisan in Ulsan as our third STAR SE and we are developing it into a success model.

SK innovation is continuously discovering and developing star social enterprises based on experience and knowledge. A birth of one star social enterprise not only stimulates the social economic ecosystem in the area but also spreads and expands social value to relevant social enterprises, like a butterfly effect, which is why the model has gained recognition in Korea and the world.

Chunnuri Jeonju Bread Inc.

Jeonju Bibim Bread is Chunnuri Food's major product which recorded explosive sales after its back story 'bread that makes no money despite sales' spread through word of mouth. Since contributing to its initial investment in 2013, we established an open platform by sharing the group and subsidiaries' infrastructure and supported Chunnuri in all facets. We are building the company as a success model as a star social enterprise.

The success of Jeonju Bibim Bread resulted in a company growth from 4 initial employees to 40 full-time workers, along with an affiliated lab where youth in graduate or postgraduate level or equivalent are working together. In addition, the success is largely contributing to the local economy by purchasing local produce, spreading local food items, outsourcing production to small social enterprises, increasing jobs and improving revenue and stimulating the business area in the Jeonju old city center. Chunnuri opened three more branches in the Jeonju and Iksan area. In 2019, another store is prepared to open around the Jeonju KTX Station. Chunnuri is expanding by building a platform to stimulate the North Jeolla economy through 'North Jeolla Social Economy Alliance' based on Jeonju Bibim Bread. Thanks to these efforts, Chunnuri was awarded the Korean Social Enterprise Award in 2017 and received an invitation to the presidential conference as a North Jeolla province delegate for outstanding operations.

Morethan Co., Ltd

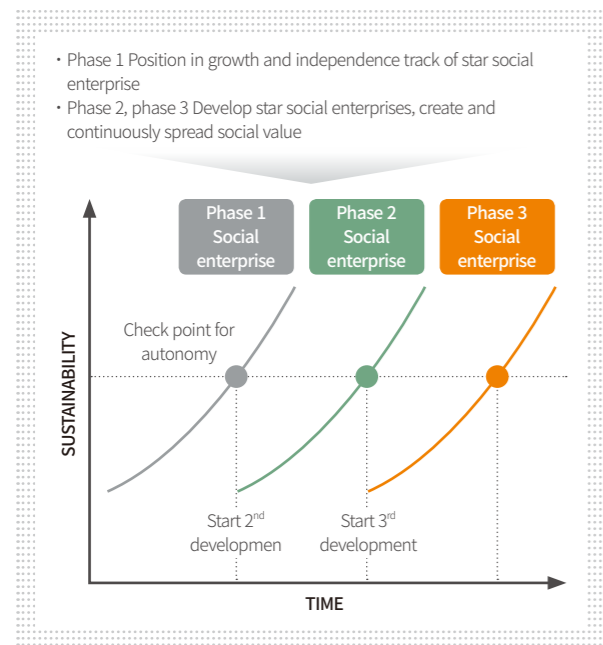
Morethan is a social enterprise that upcycles leather seats, airbags and other byproducts from a vehicle that is not recycled to create fashion items such as bags and wallets. SK innovation shared its infrastructure that is suitable for the fashion industry based on its know-how of cultivating star social enterprises. In particular, we collaborated with entertainment companies to actively promote the brand through popular programs and celebrities. Furthermore, we launched a Morethan product as 'Good Product' item 1 at SK Store which was recognized for its exceptional design and quality by the pickiest merchandisers. Morethan has opened a store in JDC duty-free shop and is expanding its sales channel. Thanks to this kind of growth, the case was introduced at 'Global Engagement & Empowerment Forum on Sustainable Development 2018' as a success story. In addition, Morethan was selected as an example corporation in job creation and received an invitation from the visiting French state to the 'Korea-France Business Summit' in 2018 where it presented its success

case as the delegate for Korean startups. Morethan has gained recognition in Korea and worldwide and won the Korean Social Enterprise Award 2018.

Usisan

Usisan is the third star social enterprise that contributes to local economic growth by developing whales of Ulsan Jangsaengpo that will never return due to pollution, into culture content products. Usisan was certified as a venture tourism company by Korea Tourism Organization. It has not only been creating jobs for the socially disadvantaged through various business projects but has also been extending their cultural impact by displaying artwork from local artists in gallery cafes. Furthermore, Usisan operates the gift shop in Jangsaengpo Whale Museum and runs various experiential programs in the post office to donate part of the profits on researching endangered whales and protecting them. Usisan will continue to create social value as a major social enterprise to protect Korea's seas and transform Ulsan from an industrial city to a green city for tourism.

Star social enterprise development plan



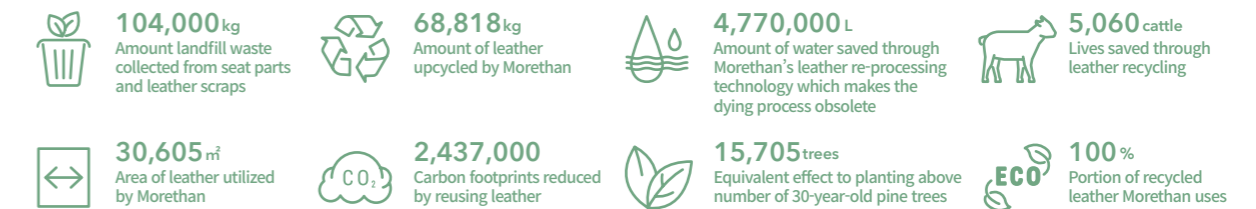
Result of Chunnuri Food's social value creation

Revenue	(Unit: KRW 100 million)
2016	3
2017	15
2018	20

Employed workforce	(Unit: number of employees)
2016	18
2017	26
2018	40



Environment saved by Morethan's efforts



Result of Morethan's social value creation

Revenue	(Unit: KRW 100 million)
2016	0.9
2017	3.5
2018	10

Employed workforce	(Unit: number of employees)
2016	4
2017	16
2018	20



Result of Usisan's social value creation

Revenue	(Unit: KRW 100 million)
2016	0.7
2017	1.3
2018	4.5

Employed workforce	(Unit: number of employees)
2016	5
2017	8
2018	10



Support for the Socially Disadvantaged

Happiness sharing and bridge love

SK innovation operates 71 volunteer teams since our executives and employees formed ‘SK Angels (1004) Volunteer Group’ in 2004. All employees are volunteers. Our volunteer work emphasizes face-to-face support through a 1:1 Caring Program so that our efforts are not limited to simple financial help. In 2018, 96% of our employees participated in volunteer work through which we formed alliances with 35 schools and institutions that help children with developmental disabilities, and 17 institutions for the elderly. We have supported 4,000 children 2,100 elderly through the year. Our efforts were recognized and we were awarded the Grand Award for Volunteer Work in Korea from the Ministry of the Interior and Safety, Certification of Merit as an institution for protecting the elderly from the Ministry of Health and Welfare, and many other volunteer related medals. We will gradually extend our talent donation and pro bono projects to 10% and 6% of our volunteer work respectively, based on skills and expertise of our employees.

Employee donation program

In 2018, SK included the notion that ‘we develop mutually with society’ in our management philosophy (SKMS). After a successful negotiation between the company and workforce, we decided that employees contribute 1% of their base salary and the company participates in a matching grant to meet the amount. This laid our groundwork to creating a future-oriented innovative labor-management culture. The idea is an expansion of our ‘A donation account per person program’ which was launched in 2007. Funds collected from late 2017 went to supporting global environment and the socially disadvantaged.



Mutual growth with suppliers
KRW 2.41 billion

- Support for suppliers to achieve mutual growth and alliance

Medical care
KRW 1.52 billion

- Medical expense support for children with leukemia
- Artificial joint treatment for socially disadvantaged people
- Medical fee support for the elderly and children who are victims of violence

Jobs
KRW 130 million

- Support for job creation of social enterprises

Housing/living support
KRW 460 million

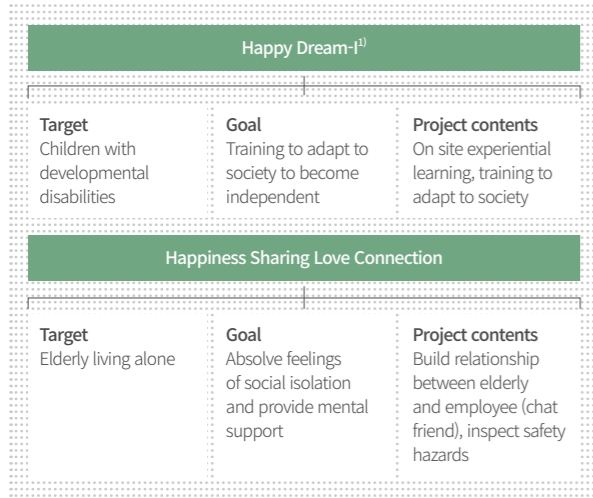
- House Repair with Love for elderly living alone or low-income households
- Support for senior centers, children centers and welfare establishments

Education
KRW 220 million

- Support for students that pursue arts, music and sports from low-income households
- Classroom building project for remote areas in Nepal
- Support for persons with developmental disabilities to become independent

Global environment
KRW 140 million

- Vietnam mangrove forest restoration project



1) A child that dreams of happiness

Participation of employees in volunteer work

Average volunteer hours per employee		Participation rate	
	(Unit: hour)		(Unit: %)
2011	9.9	2011	68.3
2012	8.2	2012	65.1
2013	7.3	2013	61.8
2014	5.9	2014	57.1
2015	5.6	2015	56.9
2016	7.8	2016	100
2017	8.5	2017	100
2018	8.3	2018	96

Program for Shared Growth with Communities

SK innovation prioritizes stakeholder happiness and the local community in areas of business operation

at home and abroad. We conduct various programs that create social value for various areas such as helping the socially disadvantaged, environment and education in order to fulfill our duty as a body in the local community.

Mutual growth in Korea

- Ulsan**
- Education**
 - Scholarship funding for University of Ulsan
 - SK Happiness Scholarship
 - Scholarship for elementary schools in the area
 - Dream finding program for youth in turmoil
 - Support program for youth outside school
 - Culture and welfare**
 - Ulsan Rose Festival

- Support for disadvantaged and vulnerable classes**
 - Social welfare programs(public contest for social enterprises, welfare blindspot happiness parcel)
 - Job creation for the socially disadvantaged
 - Victims or crime support center
 - Project to prevent senior dementia patients from going missing
 - Educating family of elderly to prevent dementia
 - Neighborhood love project of kimchi making and sharing
 - Support for children with developmental disabilities

- Incheon**
- Education**
 - Improve used equipment (elementary school, middle school)
 - Summer camp science media for middle schools
 - After-school classes in elementary schools
 - Uniform sharing program to spread love
 - Academic mentoring for middle schools
 - Personal book mentoring 'Rain Shower'
 - Growing hope sports class for developmental disability
 - Eco Forest experience class
 - Rainbow Forest experience class

- Culture and welfare**
 - Incheon spring blossom festival
 - Neighborhood music festival
 - Shingles vaccination for seniors
 - Happiness culture center for neighborhoods
 - Seo-gu kimchi making festival promotion
 - Parents' Day support
 - Support for bonding project with seniors and Happiness Recharge Walks

- Neighborhood environment improvement**
 - Neighborhood improvement project

- Seosan**
- Support for disadvantaged and vulnerable classes**
 - Targeting children with developmental disorders, support social and cultural field education
 - Popular tourist attractions, movie theaters, national music festival for those with developmental disorders, etc.
 - On-site field experience education

- Jeung-pyeong**
- Support for disadvantaged and vulnerable classes**
 - Targeting elderly living alone, support for stable life
 - Kimchi sharing event, etc

Mutual growth worldwide

- U.S.A**
- Food Bank volunteer work in Houston for disadvantaged children skipping meals and the homeless (2017)
 - USD 50,000 fund donation to department of Korean Studies, Rice University (2017~2018)
 - USD 50,000 donation to Tulsa Regional STEM Alliance (TRSA) Education Program in Oklahoma
 - USD 50,000 donation to fire and emergency medical services located in Freeport, Texas

- Peru**
- Training support for agricultural technology and equipment consulting (My Ecotech Farm)
 - Quality education program for low-income students, parents and school staff (My School Program)

- Southeast Asia**
- Singapore**
 - Travel escort volunteer program for seniors (2015~2017)
 - Volunteer program to provide to the disadvantaged

- Vietnam**
 - Mangrove forest restoration to fight climate change (Tra Vinh province)



Donation to Fire and Emergency Medical Service Center, Texas

* Objective: 30% of residents in Incheon (3 district neighborhoods) to receive quality education through mutual growth programs by 2020

Specialized Social Contribution

Creating a sustainable environment

We conduct various activities with local stakeholders to create social value through our campaign to reduce disposable products and environment protection projects in the vicinity of our business sites.

Project name	Term	Project contents
Ulsan Forest Protection for Life	2005~	<ul style="list-style-type: none"> In collaboration with Ulsan Forest of Life Ulsan Daewangam Park dead leaf scrape up to protect pine trees Cool Wall creation in city center Ivy planting on retaining walls Eliminating harmful plants Fertilizing Green Zone trees that filter fine dust Collection of ginkgo fruit on streets
Incheon 1 Company 1 Mountain 1 River Care	2006~	<ul style="list-style-type: none"> Garbage and waste clearing in Simgok River, Wonjeok Mountain area EM mudball throwing event to improve river water quality (2,000)
Environment restoration in vicinity of Incheon business sites	2006~	<ul style="list-style-type: none"> Cleaning project for business site surroundings and roads above seas 9 activities in 2018 (120 participants from employee)

CASE. I Green We Green Challenge

SK innovation is campaigning to use tumblers to join the global campaign to reduce plastic and create social value in daily company life. As part of the campaign, we launched 'I Green We Green Campaign', a photo relay showing tumbler or mug cup use by organization in the entire company. We also encouraged employees to carry tumblers into meetings and banned disposable cups in our headquarters. We will expand our campaign to reduce disposables from our company to external stakeholders. We also have plans to provide all floors of headquarters with mug cups as well as a washer just for mugs. In addition, we will take a step further from using tumblers to continuous campaigning to reduce plastic with regional government bodies, schools and organizations.



'Happy Heart Healing Camp' for daily carers of seniors living alone

SK innovation runs a program to improve self-confidence of their impact targeting daily carers of seniors living alone. The role of daily carers is growing due to the aging population. However, depression is on the rise from intense emotion-labor with issues such as the death of a senior, suicide or violence. SK innovation is exclusively improving the caring environment for seniors living alone through 'Happy Heart Healing Camp' which aims to alleviate job difficulty and stress.

The 1st Happy Heart Healing Camp

- Camp Term:** August, November 2018 (biannual)
- Partner organization:** Comprehensive Support Center for the Elderly Living Alone, Ministry of Health and Welfare
- Target:** Daily carers for the elderly living alone (80 participants) from partner welfare centers in Seoul. Daejeon, Jeungpyeong business site areas (7 centers)
- Program contents**
 - Healing Camp to improve self-confidence and influence
 - Differentiated curriculum using SK innovation infrastructure and company skills such as SK Arcadia Training Center, music concert by patients of developmental disabilities
- Future plan**
 - Expand to partnering welfare centers in Ulsan and Incheon business sites as of 2019



Happy Heart Healing Camp

Support to improve sociability and autonomy for those with developmental disabilities

SK innovation contributes to patients with developmental disorders by promoting cultural and physical activities to improve their physical and mental health as well as sociability. Our efforts also go to enhancing job specialization for the developmentally disabled that experience career interruptions after school years to continue their employment.

National music festival for those with developmental disabilities (Great Music Festival)

Since 2017, we have been holding the Great Music Festival with Heart Heart Foundation for music teams composed of the developmentally disabled in order to improve their sociability and promote their musical talents.

The 1st Great Music Festival

- Contents:** 38 teams nationwide (343 participants), 800 attendees
- Outcome:** Company concert for awarded teams, performance opportunities at flea markets or other major events



The 2nd Great Music Festival (2018)

- Contents:** 33 teams nationwide (299 participants), 1000 attendees
- Outcome:** Opportunity to perform at concerts inside and outside the company, and major event for awarded teams, Raised awareness for disabled persons through MOU with Korea Cable TV Commission and SM Entertainment

Support program for the developmentally disabled to become autonomous (Career Jump Up Class)

We provide a program to promote autonomy with Korea Foundation for Persons with Disabilities where we train the developmentally disabled after school days (aged 21 and over) in jobs that connect to actual employment.

The 1st Career Jump Up Class (2018)

- Term:** July-December 2018
- Contents:** Agreement between SK innovation-Korea Foundation for Persons with Disabilities-Seoul Training Center for Persons with Disabilities on 5 occupational fields for educational training programs

I. Re-employment Booster Class

- Barista:** 6 participants obtained certifications, 3 participants found employment
- Baking:** 4 participants found employment

II. New Occupation Skill Challenge Class

- Easy writing:** 3 found employment as writer, reporter or book master
- Easy broadcasting:** 6 found employment as announcer, DJ, voice actor, etc.
- Easy producing:** 5 found employment as PD, camera director, etc.

- Outcome:** 37 trained, 21 employed
Grand prize winner of exceptional case of job skill development competition
KBS radio appearance

Sports class for persons with developmental disabilities

We began this project to help children with developmental disabilities develop physically and improve sociability in partnership with local baseball teams in 2017. In 2018, we expanded our support to local sports teams.

Baseball Class to Grow Hope (2017)

- Partner organization:** SK Wyverns, Incheon Seogu Community Rehabilitation Center, National Center for Disabled Children and Developmental Disabilities in Incheon, JEI University
- Contents:** Baseball class with SK Wyverns
- Outcome:** 540 participants from special classes in elementary and middle school located in Incheon

Sports class for hope (2018)

- Partner organization:** SK Wyverns, Incheon UTD FC, Shinhan S-Birds, Incheon Seobu Office of Education, Incheon Seogu Community Rehabilitation Center, National Center for Disabled Children and Developmental Disabilities in Incheon, JEI University
- Contents:** Baseball class with SK Wyverns
- Outcome:** 774 participants from special classes in 20 elementary and middle school located in Incheon

Forest experience class for children with developmental disabilities

We have been providing the eco-forest experience class for children with developmental disabilities from 2017 in the Incheon area to build their physical and emotional development.

Environmental Forest Ecology class (2017)

- Suppliers:** Ecology education center Uirang, National Center for Disabled Children and Developmental Disabilities in Incheon, Incheon Chamber of Commerce
- Outcome:** Participation from 163 elementary students with developmental disorders in Incheon area

Rainbow Forest Experience Class (2018)

- Suppliers:** Ecology education center Uirang, National Center for Disabled Children and Developmental Disabilities in Incheon, Incheon Seobu Office of Education
- Outcome:** Participation from 280 elementary students with developmental disorders in Incheon area

Social Contribution in Connection with Sports

Jeju United

Jeju United creates social value through various CSR activities engaging with the local community. The group donates annual memberships for the disadvantaged so they can watch matches, runs soccer classes for children and youth, and provides family soccer camps to promote soccer in the area as well as promoting daily physical activities through diverse projects.

- **Term:** Launched in 2016
- **Target:** Residents of Jeju
- **Contents:**
 - Visiting soccer class for elementary, middle and high school, clubhouse fan tours, donation of annual memberships
 - Soccer camp for prospective youth, soccer camp for children from low-income households, Christmas sports day
 - Respect Ur Energy: Cheer-up program for underappreciated hard workers in hospitals, police stations and fire stations in Jeju

SK Sugar Gliders

SK Sugar Gliders Handball Team runs 'Exciting Handball Class' to promote physical development and emotional health for students in elementary, middle and high school in Gyeonggi-do(team home ground) as well as Seoul and other metropolitan areas. We provide a structured teaching method to spread handball in a fun and easy way so that relevant schools could create sports clubs. These activities serve as a foundation to promote handball, which is usually an unpopular sport.

- **Term:** Launched in 2013
- **Target:** Elementary and middle school students in Gyeonggi and metropolitan area
- **Contents:** Handball lessons, PE class helpers, promote creating handball clubs
- **Performance:** 1,100 participants in 2018



Jeju United

Sustainable Supply Chain

Products and services are manufactured in various areas and countries in the global market. The impact that issues occurring within the supply chain has on operations and reputation of a company is growing. In particular, global demand for supply chain is growing, followed by increased interest of stakeholders. In response, we must improve our competitiveness to secure a stable supply chain and control of risks that can occur within the value chain to achieve sustainable growth. SK innovation has established a system for supply chain management, evaluate and monitor potential risk in efforts to manage sustainability for suppliers.

Supply Chain Policy and System

Supply chain management policy

SK innovation manages its supply chain through comprehensive risk analysis from different aspects: total cost ownership, reliability, on-time delivery and customer service level, SHE (Safety, Health, Environment) management, risk management financial and non-financial factors (ESG). In 2018, we established our 'Bid Evaluation Guide', a process principle for competitive bidding purchase process to improve fairness and transparency in selecting suppliers.

Supply Chain Status

SK innovation conducts a comprehensive analysis of risk possibility in transaction size, non-substitutability, core technology and non-financial factors (ESG) to categorize and manage critical suppliers. critical suppliers are entities that provide large-scale(high volume) construction or services in our main production facilities including Ulsan, Incheon, Jeungpyeong, Cheongju and Seosan or suppliers that handle critical component or non-substitutable material (battery core material, additive, catalyst, etc.). In particular, we expanded our management scope to non-tier 1 companies in regards to transaction size for suppliers that provide large-scale construction and services or companies that have high risk potential regarding fair trade, such as providing equipment.

Main contents of ethical regulation for purchasing
Compliance of fair trade, transparent transaction, regulation and global agreements (Universal Declaration of Human Rights, UNGC, etc.)

Main contents of code of conduct for suppliers
Human rights and labor, safety and health, environment-friendly business sites, compliance with company ethics, prohibit use of conflict minerals), establish management system, etc.

Main contents of bidding guide
Principles for selecting suppliers, role and responsibilities, detailed guidelines, etc.

2018 supplier status (Unit: number of companies, %)

Type	Number of suppliers	Purchase ratio
Tier1 All Suppliers ¹⁾	2,986	
Tier1 Critical Suppliers	273	85
Non-Tier1 Critical Suppliers ²⁾	103	

1) Suppliers with transaction records in the past 3 years
2) Contractors that provide large-scale construction or services for production plants or exceeding certain quantities for products (Data from Happy Narae, SK E&C)

Supplier cost of goods purchased (Unit: KRW 100 million, %)

Type	2016	2017	2018
Cost of goods purchased	9,536	11,866	16,654
Local ¹⁾ supplier cost of goods purchased	4,833	7,371	8,485
Local ¹⁾ supplier ratio of cost of goods purchase	51	62	51

1) South Korea

2018 cost of goods purchased by item (Unit: KRW 100 million, %)

Type	Purchase amount	Purchase ratio
Construction equipment	9,568	57.5
Construction workforce	7,086	42.5

Sustainability Management for Supplier

SK innovation manages economic, social, safety and environmental risk targeting new and existing suppliers. We monitor financial risk factors in real-time based on credit rating institutions and review non-financial risk factors by inspecting work environment or SHE periodical evaluation targeting suppliers with high risk potential. Through our regular reviews and visits, we provide benefits to suppliers with exceptional results such as bond waiving and right to move for maintenance workers among others. Companies that do not meet our standards receive instructions for improvement or termination of partnership.

Social value creation within the supply chain

SK innovation engages in various efforts for suppliers to create social value. In particular, we included sustainability as an evaluation standard in our periodical evaluation in which suppliers in charge of the Ulsan and Incheon areas participate. In the future, we will use these results in distributing goods to suppliers to encourage them to voluntarily participate in creating social value. In addition, we will create a two-way platform easily accessible for suppliers within our integrated purchase system (BiOK) and Tech Solution Pool (iStep) for active communication. The platform will not only introduce social value creation of SK innovation but also collect ideas to create social value targeting suppliers.

Pre-screening for sustainability of supply chain

SK innovation conducts a pre-evaluation of all suppliers regarding economic, social, safety and environmental factors for comprehensive management of sustainability in the supply chain. In the pre-evaluation applied to BiOK, we demand new suppliers comply with our 'code of conduct for suppliers' and we exclude companies from partnership if they do not fulfill a certain standard. We manage potential sustainability risk from registration through our pre-evaluation.

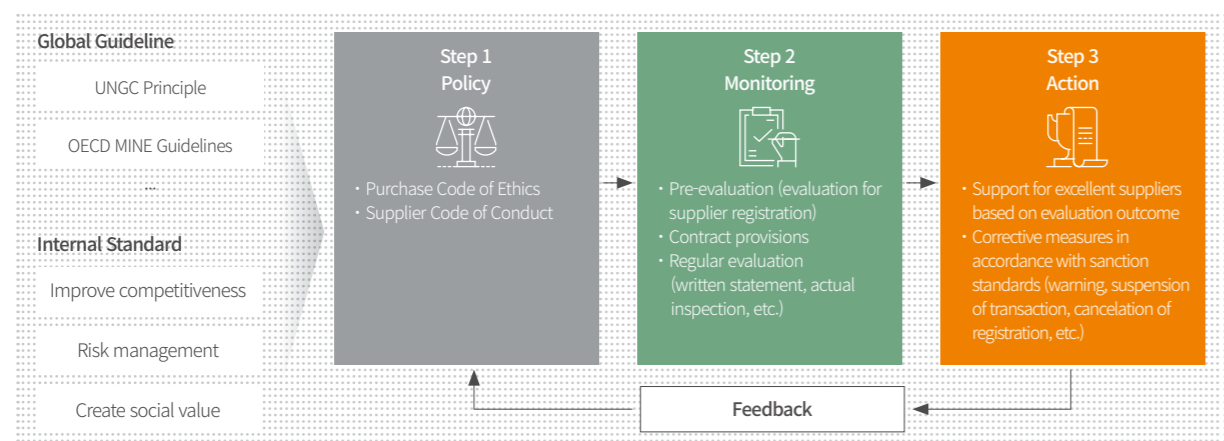
Supply chain pre-screening (Unit: number of companies, %)

Type	2016	2017	2018
Number of newly registered suppliers	335	384	395
Number of suppliers in social, economic, environmental and safety evaluation	335	384	395
Ratio or pre-evaluation	100	100	100

Social value creation plan through two-way platform

- Guide and support suppliers to promote purchase from social enterprises
- Develop and promote products that create social value through co-development technology with suppliers
- Rent our various equipment and facilities
- Assess SHE level of supplier and help improve capacity to prevent disasters
- Improve financial skills of supplier employees with expert skills

Sustainability management system for supplier



Evaluation of risks in the supply chain

SK innovation comprehends the major risk factors from economic, social, safety and health aspects and conducts regular annual assessment targeting suppliers that need management. In particular, we strengthen monitoring through site-visit audits or third-party audits on high-risk suppliers..

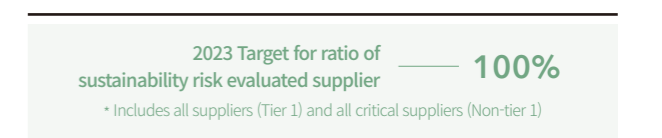
Corrective measures

SK innovation establishes corrective measures for companies in need of improvement based on our assessment to demand they improve risk factors (including ESG risk). These efforts have led to 33% of high-risk suppliers improving on their risk factors. Despite the efforts, 13 companies were met with measures according to the supplier assessment and evaluation in 2018 (unethical issues, breach of fair transparent trade) and 1 company deemed to have seriously breached regulations was permanently terminated from further trade.

2018 Sustainability risk assessment status (unit: number of companies, %)

Type	Major factors for risk evaluation	Supplier in assessment	
		Scope	Number of suppliers with high risk (ratio)
Economy	Financial risk such as change in credit rating/financial information, administrative issue	All suppliers (Total of 2,986 companies)	14 (0.5)
Social	Unfair trade acts including cartel, violation of ethics-related regulations, etc.		
Environment	Human rights, labor	764 suppliers including suppliers providing construction or services in work sites, those that handle chemical material and battery core and sub material providers	210 (27.5)
	Conflict minerals		
	Large-scale safety/environment hazards (oil spillage in sea, emission, etc.)		
	Violation of environment regulation/legislation		
	Design/management standards of SHE management system		

2018 Risk assessment results (unit: number of companies, %)



Type	Number of suppliers	Ratio	
All suppliers	2,986		
Assessed suppliers	2,986	100	
Tier 1 supplier	• On document	2,842	95.2
	• On site ¹⁾	92	3.1
	• Third-party assessment ²⁾	52	1.7
Above tier 2 supplier (Non Tier 1)	Suppliers in high sustainability risk	224	7.5
	Critical Suppliers	103	
	Assessed Critical Suppliers	103	100
	Suppliers in high sustainability risk	69	67

Result of risk corrective measures 2019¹⁾ (unit: number of companies, %)

Type	Results
Ratio of high-risk suppliers that established improvement plan	33
Ratio of suppliers that improved ESG performance within 12 months of establishing plans to improve	100
Number of suppliers terminated from transaction	13
• Number of temporary termination	12
• Number of permanent termination	1

1) Included 1st-tier and 2nd-tier suppliers

1) Includes periodical annual assessment while conducting large-scale construction or services in major production plants such as Ulsan and Incheon
2) High fair trade risk companies, includes annual government assessment from commission for shared growth



Shared Growth with Suppliers

SK innovation aspires to grow together with suppliers. We conduct various projects for long-term growth for suppliers including support for technology, skills and finance.

Technology support

SK innovation provides support for suppliers in efforts for shared growth such as co-developing technology to create domestic equipment, co-patents, creating high-value added products and entering the global market together. In particular, SK innovation and suppliers are creating a win-win process by increasing sales of new products through co-development of technology and co-patents while SK secures a price advantage by self-producing import products.

Skill support

Training program • SK innovation promotes various skill enhancing programs to improve the intrinsic competitiveness of suppliers. We conduct a ‘Mutual Growth CEO Seminar’ targeting CEOs of suppliers to deliver know-how on business strategy, finance, HR and other fields as well as providing information on newest technology including AI and big data. In addition, we provide ‘Mutual Growth MBA’ targeting supplier employees with practical information to be applied by rank or task.

Hiring support program • We held the ‘Supplier Job Fair’ targeting youth in the Ulsan area. The job fair helped small and medium companies access quality talent and the fair also reduces youth unemployment and drives local economic growth. SK innovation provided special lectures from hiring officers, employment lectures and other on-site events in which 25 suppliers participated. Through our efforts, 115 were newly employed in 2018.

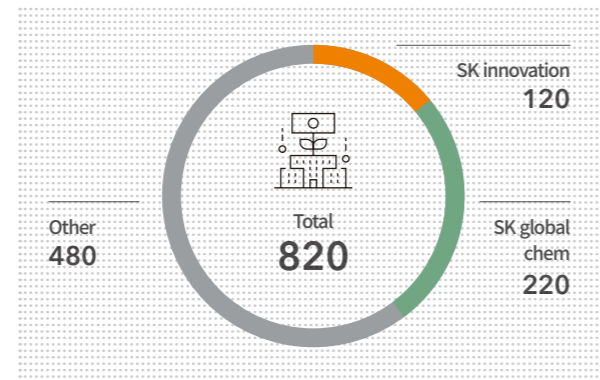
Finance support

SK innovation delivers 50% of the construction contract in cash within the week construction commences for stable business operations. We pay out the remainder within 1 week of construction completion. In addition, we provide various support programs such as direct support where we lend direct funds, indirect support through networks, and credit guarantee through mutual growth guarantee agreement. We also created a mutual growth fund to provide low interest finances to suppliers that are in need of emergency funds.

As of 2018, SK innovation and SK global chem contributed KRW 1.2 billion and KRW 2.2 billion respectively and SK innovation affiliates are operating a mutual growth fund amounting to KRW 8.2 billion¹⁾

1) Includes investment from financial institutions, error in last year data

Contribution to shared growth fund (unit: KRW 100 million)



Evaluation of Corporate Partnership Index

SK innovation is working in multidimensional ways to create happy partnerships with our suppliers by strengthening support in fields of actual needs and activating mutual communication among other efforts. In particular, SK global chemical was recognized for its efforts for mutual growth through its exclusive department which focuses on corporate partnerships. This led to an excellence rating for the 6th consecutive year in the Evaluation of Corporate Partnership Index in 2018 by the Corporate Partnership Commission. This is unprecedented in the chemicals industry, as well as being selected as the grand honorary corporation.



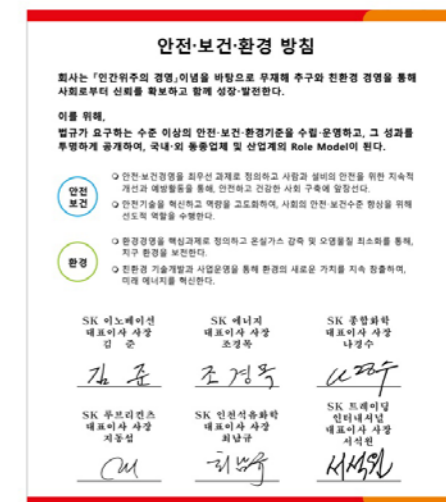
SHE (Safety·Health·Environment) Management

SK innovation is taking a step further from SHE management based on legal compliance to applying ideas of social value creation where we grow mutually with society through trust. We will continue with our SHE management through active communication with stakeholders to gain a stance as a top global company.

SHE Management System

Improving SHE management system

SK innovation has established its company policy on managing safety, health and environment. Annually, CEOs of SK innovation subsidiaries deliver their signatures to show determination for successful safety, health and environment management to our stakeholders. In addition, we analyze global companies in their core management factors for safety to define 13 items which include those factors. These items were included in our company regulations and detailed process for execution. Furthermore, we conduct activities to improve execution based on CEO leadership. We have built a positive cycle to ‘Plan-Do-Check-Action’ through regular inspections of adequately executed items for improvement and modification.



SHE Management System Framework



Industry Safety and Health

Emergency response system

SK innovation operates an emergency response system to prevent SHE hazards from external risk including fire and explosions, gas or oil leaks, typhoons, storms, earthquakes and electricity outage. For systematic management, we have established 'entire company emergency response management regulations' and 'management process for emergency response by work site' to train the entire company and sites to respond in a flexible, prompt manner. We conduct various support activities and on-site response training under the guidance of chief on site or head of plants based on the emergency response headquarters and on-site strategy headquarters and create UCCs by emergency case for training to maximize training effects. We have a pre-appointed organization by work site in times of emergency for prompt communication and response at times of accidents. We are also invested in preemptive response by installing security equipment based on production process and other methods. Also, we categorize our emergency cases (level 1~5) and conduct collective response training to prepare in case accidents aggravate to level 1 or 2.

Implementation of joint emergency response drill

SK innovation has established a company-wide emergency response drill system and expanded the existing emergency response drill, which was previously site-based, to the entire company. We conduct collective emergency response training every year where the CEO and executives participate for the group and for individual work sites. Not only the employees but executives of all levels understand the role of organizations and response process at times of emergencies thanks to periodical training. The method also contributes to immediate response when situations arise. In 2018, our training target was SK energy logistics business site.

Operation of occupational safety and health commission

SK operates an Occupational Safety and Health Commission in accordance with Industry Safety and Health Law. The commission is composed of the same number of members from company management and the workforce which includes the workers' representative and management

representative. The commission improves the work environment for employees as managers and workers discuss and decide on important issues on safety and health to prevent industrial hazards through methods such as raising awareness or improving work uniforms.

Improve SHE leadership in business sites

SK innovation is conducting activities to internalize a safe culture to meet global SHE levels. As part of these efforts, we evaluated the safety culture, tackled agenda to improve the culture and advised leaders on SHE. We also established and operated a safety act standard targeting the SK lubricants plant to define core safety leadership standards by leaders' rank and introduce an efficient management method. We plan to apply these standards and operation of safety acts to Ulsan Complex and SK incheon petrochem as well as other plants and business sites. Through these steps, we will enhance the SHE capacity and cultural standards of our employees and continuously strengthen our safety practice through SHE leadership and a unified target of leaders and employees.

In addition, we received consultation from advanced SHE managers to reflect on our leaders' SHE decision-making skills on site and improve their insight. We are continuously strengthening our SHE leadership by obtaining capacity to execute SHE on site through methods such as understanding the worries and demands of leaders to provide them with relevant knowledge and know-how as well as delivering applicable global management methods and cases.

Expansion of safety culture

SK innovation is currently conducting 'Safety ABC!' campaign to innovate the safety culture in our Ulsan Complex. This campaign aims to create a positive cycle based on correct understanding and communication to transform attitudes on safety leading to safe behavior. To accomplish this, we have selected various agendas to practice such as always putting on safety glasses when entering production areas, stopping first when entering intersections and safety experience with the family. SK innovation Battery Production Technology Center has published 'SHE Pocketbook', customized training material for work sites while considering the industrial trait that many new workers are employed. The center is distributing the booklets and working to make

employees understand safety hazards in production process easily and prevent accidents. SK innovation Battery Production Technology Center conducted the SHE Catch Phrase Campaign. After collecting 208 opinions from 155 employees in all departments to create a safer work environment and raise awareness, we selected "Perhaps? Entails an accident and Inspect! Entails safety" and also selected 5 major practices for all employees to comply with.

Collaboration program for shared growth in safety and health

SK innovation engages in projects to improve overall work site environment and runs collaboration programs to prevent industry hazards through mutual growth relationships with suppliers. Through these efforts, we helped suppliers make danger evaluations, supported them in receiving KOSHA 18001 Certification, created an environment to comply with 4 core safety rules and CPR training. In 2018, our Ulsan Complex and materials business department obtained grade A which belongs to the top 10%. In addition, we evaluate the safety and health standards of suppliers every year to award excellent performers and provide motivation and encouragement on industry safety.

Employee health care

SK innovation provides a systematic health care to employees so that they can concentrate on their work. We operate a company affiliated clinic in the

Ulsan Complex and we provide consultation and programs to improve healthy habits in employees and executives.

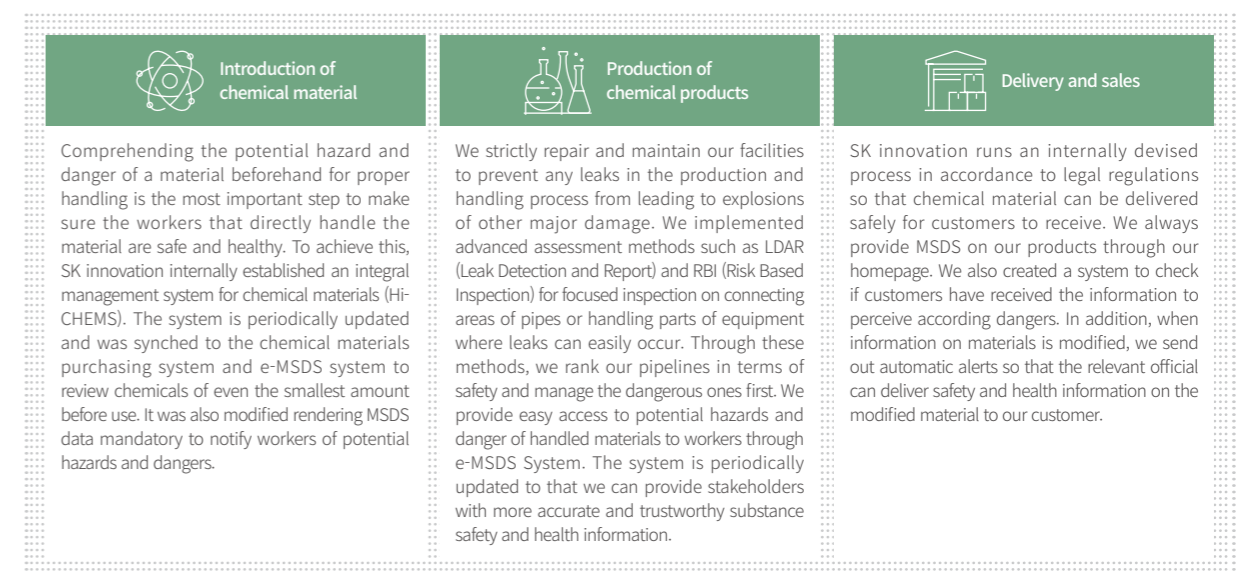
Chemical Materials

As social awareness of the danger of chemical materials is increasing, regulations for chemical materials are also intensifying. SK innovation recognizes the social and legal responsibilities of managing chemicals and we are investing efforts to respond adequately. We have built a management system and procedure specialized for chemical materials which allow workers handling the material to learn about the potential hazard and danger of the material. We also implement safety measures while handling the material to prevent chemical accidents and secure the safety of our employees and local residents.

E-MSDS system

SK innovation established an e-MSDS System to manage material safety data sheets (MSDS) that we stored in document into a system. The existing system only allowed viewing or searching for MSDS but we implemented a chemical materials information database and MSDS algorithm to the new system to add the MSDS creation function. The function allows employees to create MSDS in accordance with global standards. We anticipate providing prompt, accurate and trustworthy information on materials to stakeholders in Korea and abroad.

Chemical materials integrated management system



Response to Climate Change

Governance for climate change response

SK innovation has gone beyond an internal greenhouse emissions management system to build a response system on an SK group level. In particular, we created the ‘Shared Infra Taskforce (TF)’ affiliated with our top decision-making body, SUPEX Commission, Strategy Committee to respond on a group scale. The Infra TF has engaged in activities such as creating trading process among subsidiaries, building a response roadmap by risk and scenario case, project and investment to secure carbon credit and reducing response costs. In 2018, the TF prepared SK group responses by risk scenario, conducted the Cook Stove Project in Myanmar and successfully traded 900,000 tons of carbon credit. In 2019, we will increase its size and responsibility by building a new environmental committee affiliated with SUPEX Commission Committee for Energy and Chemicals.

Response to greenhouse gas emissions trading scheme

SK innovation, SK energy, SK global chem, SK lubricants and SK incheon petrochem are targets for carbon cap and trade in accordance with the legislation on greenhouse emissions trading scheme which went into effect in 2015. SK innovation has built a carbon credit trade strategy to respond efficiently to government regulations and market demands arising from the greenhouse gas emissions trading scheme. We have created and implemented a procedure for greenhouse gas emissions trading scheme. Our strategy includes step-by-step methods from securing a budget, executing to purchasing and others, response method by scenario in case of price change and how to obtain carbon credit according to change of production quantity. We have summarized a prioritizing method with heed to carbon credit prices by setting a guideline for investment projects which we are utilizing.

SK innovation and subsidiaries sold 900,000 tons of carbon credit of our surplus that we secured through internal reduction and pre-reduction, pre-reduction performance, optimized emissions calculation method and others in 2017 when phase 1 came to an end. This was to respond to the government measure which would limit carry-over credit. SK innovation established a target based on Nationality Determined Contributions (NDCs) and plans to record emission reduction of 7.8% compared to BAU by 2025. In addition, we are building additional targets for greenhouse emissions reduction to decrease climate risk and contribute to the national reduction target by seeking additional methods such as developing new technology, improving energy efficiency and cancelling out our emission quantity.

Energy quantity management

SK innovation has set a target to reduce energy use and systematically manages the usage. In particular, we are aiming to cut energy use by improving energy efficiency in sites where a high quantity of energy is consumed including Ulsan Complex and SK incheon petrochem.

Greenhouse emissions quantity management

We calculate our greenhouse emissions according to the greenhouse gas emissions trading scheme guidelines. The quantity includes emissions from Ulsan

Complex (SK energy, SK global chem, SK lubricants), SK incheon petrochem, SK innovation Seosan plant, Jeungpyeong plant, Cheongju plant and SK Institute of Technology Innovation. Business sites abroad and supply chain are not included. We have set targets for quantity of greenhouse emissions and also by unit of KRW which we are currently managing.

Reduction of water pollutants

SK innovation runs a highly efficient biological wastewater treatment facility which is backed by a remote water quality inspection control system. Wastewater which includes pollutants caused during the production process is filtered through the absorb tower to be finally released. We apply an internal standard for pollutant concentration sewage which is stronger than legal standards for strict management. In addition, we used part of the treated wastewater for firefighting or landscape watering. We also installed a regenerative thermal oxidize (RTO) in our Comprehensive Wastewater Plant 1 and took a step further in safety by installing settling tanks and fiber filters in our Comprehensive Wastewater Plant 2.

Water resource management

SK’ main sources of water include the Daecheong Dam, Daeam Dam and Asan Bay. We calculate the amount used based on water bills to our company and major sites of domestic business operation.

CASE. Major acts to improve energy efficiency

Reduced fuel cost with new heat exchange installation

SK has retrieved Kerosene Run Down and reduced fuel cost by installing flat heat exchangers within crude distillation units. We anticipate an annual cut of KRW 1.08 billion in fuel cost.

Increased heating furnace efficiency by changing air preheater

We have improved equipment function in CDUs, improved fouling and strengthened material by exchanging fuel preheaters. We have improved our heating furnace efficiency. Renewing preheaters in CDUs of Ulsan Complex 4 and 5 has resulted in a fuel cost reduction worth KRW 1.56 billion annually and additional benefit of KRW 760 million by reducing greenhouse emissions.

Reducing Environmental Impact of Business Sites

Reduction of air pollutants

SK innovation operates an odor preventive facility to conserve the cleanliness of air surrounding our business sites and the vicinity as well as preventing damage from odors. In addition, we applied the LDAR system in plants that emit arsenic acid to prevent damage from hazardous air pollutants (HAPs) on business sites. Furthermore, we minimize causes of air pollution by monitoring air pollutants in real-time on major waste facilities such as heating furnaces and boilers through telemetering system (TMS).

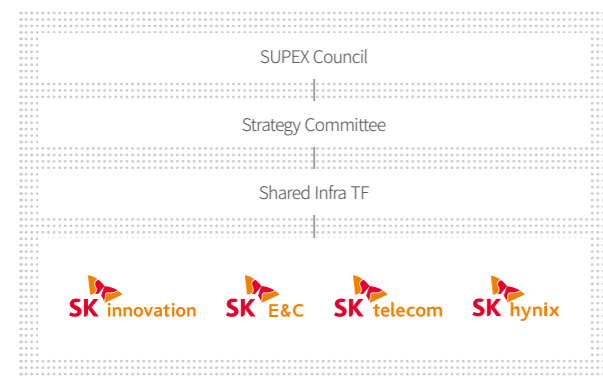
Reduction of waste

SK innovation controls amount of waste through an internally development waste management system. We commission recognized companies specializing in processing waste for recycling, incineration or landfill. In particular, we minimized our waste output to prepare for the basic resource circulation legislation in effect as of 2018 and put in utmost efforts to recycle of 25,000 tons of waste to promote resource circulation and correct waste treatment. Furthermore, we prevented waste from spreading by tightly sealing waste collection vehicles in our Ulsan Complex which also improved reduced waste odor.

Management status of water pollutants

Business Site	Wastewater Treatment Facility	Treatment Method	Emission Site
SK energy (Ulsan)	Ulsan Complex wastewater plant	Biological, Advanced treatment	Public water (East Sea)
	wastewater plant	Biological	Yongyeon terminal disposal plant for sewage
SK global chem (Ulsan)	wastewater plant	Physical and chemical	Yongam wastewater plant
	wastewater plant	Biological	Yongam wastewater plant
SK incheon petrochem (Incheon)	wastewater plant	Biological, high temperature	Gajwa terminal disposal plant for sewage
SK innovation (Jeungpyeong)	Aerator facility	-	Terminal disposal plant for sewage in Jeungpyeong-gun general industrial complex
SK innovation (Cheongju)	-	-	Terminal disposal plant for sewage in Cheongju national industrial complex

Governance to respond to climate change



Major activities

- Establish carbon trade process among subsidiaries**
 - Analyze response status of subsidiaries and if they are in surplus or shortage
 - Establish trade process among subsidiaries
- Comprehend risk, following scenarios and build a response roadmap**
 - Monitoring of domestic and global market, code and regulatory trends
 - Establishing possible scenarios and response road-map
- Conduct projects and investment to secure carbon credit**
 - Promote Cook Stove Project in Myanmar
 - Reduction projects related to social value creation
- Reduce emissions and response costs**
 - Secure opportunities by sharing technology, information and know-how

Oil Spill Prevention

Prevent marine pollution

SK innovation is establishing task and process standard as well as improving monitoring of business sites to make share no incidents of marine pollution occur. We conduct marine emergency response training to minimize damage if accidents occur and also appointed a shift-based manager for marine pollution prevention by marine facility (buoy, dolphin, oil tank, petroleum product tank) so that accidents don't occur at nighttime.

Manage soil environment

SK innovation has entered into 'Voluntary agreement to conserve soil environment' with the Ministry of Environment to prevent and control soil pollution. We are cleaning up the polluted earth of our own accord. Biennially, we hire a specialized organization to conduct research on the degree of soil pollution for our own evaluation. When we find polluted areas, we immediately hire an agent to clean up the polluted soil. Furthermore, we operate vehicles equipped with chemical uniforms, boots and other tools so that any pollution detected on site can be eliminated immediately. Through this method, we can minimize soil pollution by emergency response when accidents occur.

Marine emergency response training



1. Surrounding ship accident areas with oil fences
2. Exterminating oil fence outskirts
3. Safety management of integrated ships
4. On-land oil fence project
5. Eliminating inside oil fences

SHE certification status

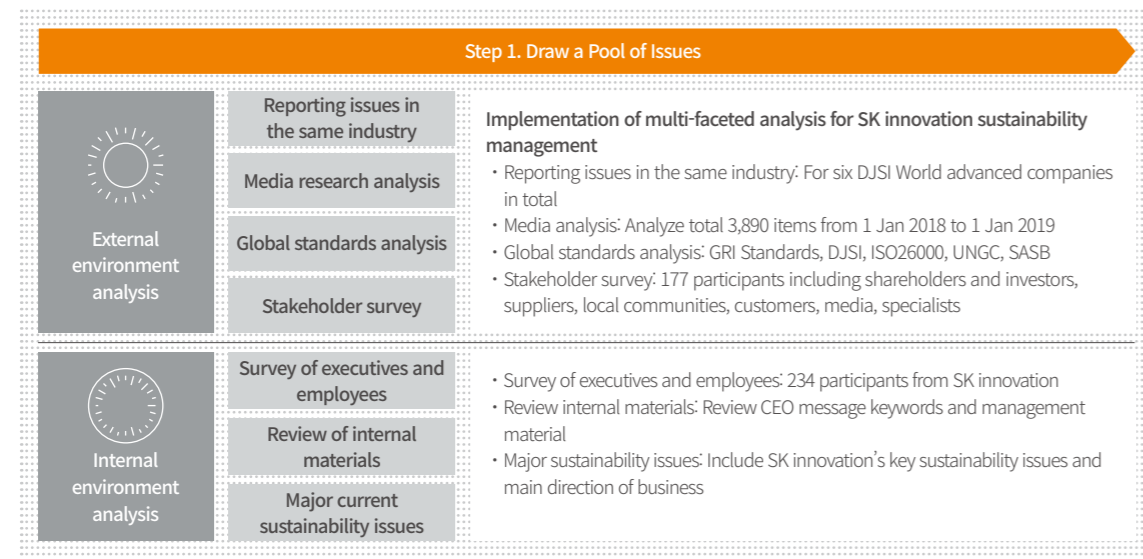
Type	Work site	Date of certification	Certification expiry date
ISO14001	SK innovation (Seosan)	2018. 07. 27	2019. 12. 23
	SK energy	2017. 11. 09	2020. 11. 08
	SK global chem	2017. 06. 13	2020. 06. 12
	SK lubricants	2018. 06. 18	2021. 06. 17
	SK incheon petrochem	2017. 11. 09	2020. 11. 08
ISO45001	SK Institute of Technology Innovation	2018. 11. 28	2021. 11. 27
KOSHA18001	SK incheon petrochem	2017. 12. 20	2020. 12. 19

APPENDIX

Materiality Test

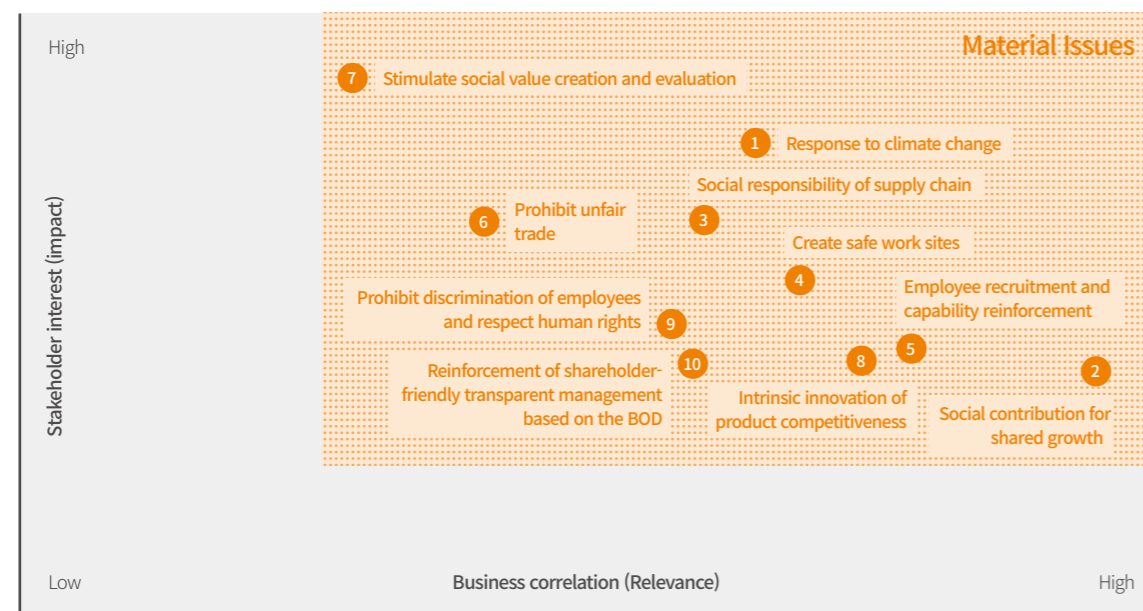
SK innovation conducted internal and external environmental analyses for global sustainability trend, major industrial reporting issues and current management issues in the company to draw company's material sustainability issues and identified stakeholders' opinions and needs by conducting a survey for key stakeholders.

Materiality Test Process

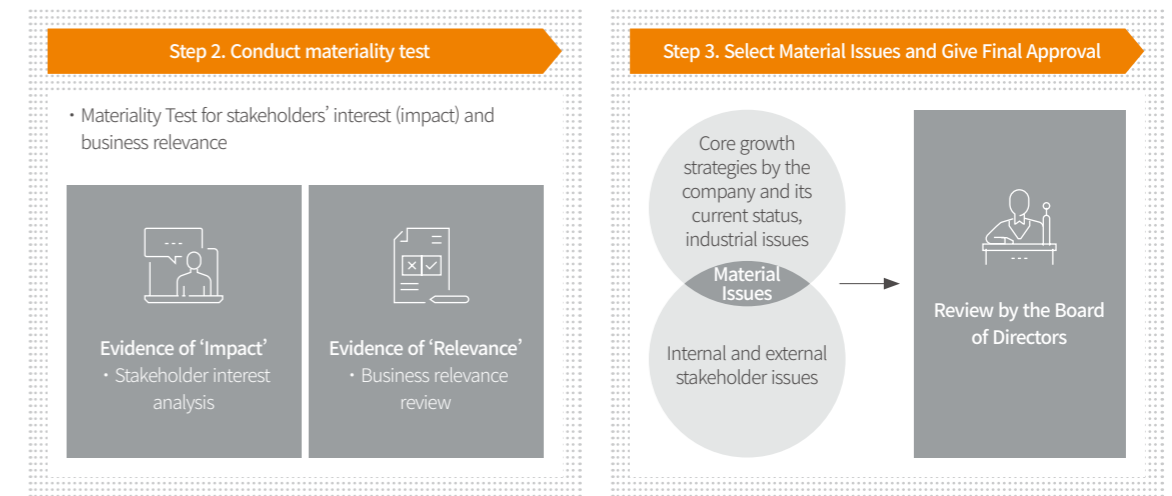


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Materiality Test Matrix



In the pool of issues identified by multi-faceted analysis, SK innovation identified material issues by considering stakeholders' interest (impact) and business relevance and a final review was conducted by the BOD. In 2018, we selected 10 material issues out of a total of 35 issues and reported the top four issues as material GRI topics.



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Reports on Material Issues

No.	GRI Standards Topic	Issue	Stakeholder evaluation on impact				Page
			Financial	Image	Management	Strategy	
1	Emission	Response to climate change				○	54-55
2	Local community	Social contribution for shared growth		○			61-63
3	Social impact assessment of supply chain	Social responsibility of supply chain		○			58-60
4	Industry SHE	Create a safe work site			○		56-57
5	Employment, training and education	Improve employee employment process and employee skills			○		76-81
6	Actions to deter competition	Prevent unfair trade			○		72-75
7	Indirect economic effect	Create social value and stimulate evaluation				○	48-51
8	Financial performance	Innovate intrinsic product competitiveness	○				38-43
9	Human rights assessment	Prohibit employee discrimination and respect human rights			○		81
10	Governance	Enhance stakeholder-friendly transparency based on BOD		○			66-69

Stakeholder Engagement

SK innovation runs various communication channels depending on stakeholder characteristics. We define main stakeholders as our customers, employees, shareholders and investors, local communities and suppliers. We constantly review issues of interest by group. Through continuous communication with stakeholders, we will build a firm relationship of trust and stimulate social value creation by reflecting their opinions and needs into our business operations.

Stakeholder Communication

Stakeholders	Communication Channel	2017	2018
 Customer	<ul style="list-style-type: none"> Customer Happiness Center' call center operations EnClean.com operations Year round meetings and events Homepage (SK innovation, blog (SK innovation, SK energy), Facebook (SK innovation, SK energy, SK lubricants), etc. 	2017 <ul style="list-style-type: none"> Creating value through mutual growth Maintaining a healthy work-life balance Securing sustainable technology 	2018 <ul style="list-style-type: none"> Fair performance evaluation and compensation Banning of unfair trade Improvement in communication and capacities of suppliers
 Employee	<ul style="list-style-type: none"> Intranet (tong tong, etc.) Company broadcasting channel (gbs) and newsletters by company iCon (company communication messenger, change facilitator) CEO and Employee conversations (Well-Comm. Day) and discussions Happy Walk 	2017 <ul style="list-style-type: none"> Increased company value Innovation of intrinsic competitiveness Mutual growth value creation 	2018 <ul style="list-style-type: none"> Innovation of intrinsic product competitiveness Secured new technology for sustainability Innovation of business model and business portfolio
 Shareholder, investor	<ul style="list-style-type: none"> Annual shareholder meetings, performance announcement Domestic and global NDR (Non-Deal Roadshow) and conferences 1:1 meetings, e-mail and phone inquiries Publications, etc 	2017 <ul style="list-style-type: none"> Improved shareholder-friendly transparency based on board Communication with stakeholders Value creation through mutual growth 	2018 <ul style="list-style-type: none"> Secured new technology for sustainability Internal and external risk management response Expansion of stakeholder communication
 Local community	<ul style="list-style-type: none"> Meeting with local organizations Participation in local community committees near business sites Participation in the living and safety commissions of police precinct offices Engagement in welfare facilities and group operating commissions in the adjacent region 	2017 <ul style="list-style-type: none"> Communication with suppliers Increased company value Communication with shareholders 	2018 <ul style="list-style-type: none"> Prohibition of unfair trade Maintained work and life balance Minimized emission of environment pollutants
 Supplier	<ul style="list-style-type: none"> Regular meetings with suppliers Supplier CEO Meeting Regular meetings regarding logistics, machines, equipment inspections 	2017 <ul style="list-style-type: none"> Mutual growth value creation Secured new technology for sustainable growth Improved communication and capabilities of suppliers 	2018 <ul style="list-style-type: none"> Improved communication and capabilities of suppliers Secured new technology for sustainable growth Growth support through shared infrastructure

ESG Data | Economy

Revenue and Operating Profit by Business Sector

(Unit: KRW 100 million)

Type	2016		2017		2018		
	Revenue	Percentage of revenue	Revenue	Percentage of revenue	Revenue	Percentage of revenue	
Revenue	Total	394,765	100%	461,627	100%	545,109	100%
	Petroleum	283,699	72%	327,712	71%	391,935	72%
	Chemicals	76,865	20%	93,392	20%	106,844	19%
	Lubricants	25,358	6%	30,475	7%	32,661	6%
	Battery	1,442	0%	1,457	0%	3,482	1%
	E&P and other	7,401	2%	8,590	2%	10,186	2%
Operating profit	Total	32,433	100%	32,218	100%	21,176	100%
	Petroleum	16,256	50%	15,020	46%	7,093	33%
	Chemicals	12,322	38%	13,772	43%	11,176	53%
	Lubricants	4,683	14%	5,049	16%	4,607	22%
	Battery	(1,001)	(3%)	(2,321)	(7%)	(3,175)	(15%)
	Oil E&P and other	172	1%	697	2%	1,476	7%

Distribution of Economic Value

(Unit: KRW 100 million)

Sector	Recipient	Contents of distribution	2016	2017	2018
Economy	Corporation	R&D ¹⁾	1,425	1,957	2,336
		Acquiring tangible assets ²⁾	6,345	9,135	12,863
	Investors	Dividend payout	4,512	7,566	8,222
Social	Employees	Employee Compensation ³⁾	11,116	13,036	13,034
	Suppliers	Goods purchased for suppliers	9,536	11,866	16,654
	Local communities	Investment for social contribution	416	269	349
	Government	Corporate tax payment ⁴⁾	5,193	6,513	7,325

1) Based on Annual Report 2018

2) Based on each year's consolidated audit report, note 10-(2) refers to items in book value of tangible assets labeled 'acquired'.

3) Based on each year's consolidated audit report, note 23 refers to the item under cost by category labeled 'employee wages'.

4) Based on Annual Report 2017's consolidated cash flow statement in consolidated financial statement.

CEO Compensation

Field	Unit	2018
Total CEO compensation ^{5),6)}	KRW million	2,664
Mean annual salary of all employees excluding CEO and executives	KRW million	128
CEO compensation over mean annual salary of all employees	Multiplier	20.81

5) Incentive compensation for the CEO is determined by comprehensively considering company's financial profits (pre-tax profits, EVA), relevant financial indicators (increase in stock price, business model innovation), created social value (SV based business model, SHE, social contribution, etc.) and others.

6) SK innovation granted the CEO 70,551 stock options in March 2018 to maximize company value.

ESG Data | SHE

Energy Consumption

Energy target for year 2025 — Reduction by **7.8%** compared to BAU by 2025

Type	Unit	2018									
		2016	2017	Total	SKI (Seosan)	SKI (Jeungpyeong, Cheongju)	SKI (Daejeon)	SKE	SKGC	SKL	SKIPC
Total energy consumption		51,104,325	52,290,305	53,877,294	609,421	624,197	263,056	17,421,638	19,761,806	1,383,980	13,813,197
By category	Fuel	39,021,951	39,718,326	40,445,969	138,143	215,927	49,896	14,459,802	14,144,723	601,465	10,836,015
	Electricity	10,652,767	11,132,376	11,534,989	471,278	408,271	213,160	5,032,893	2,651,160	121,979	2,636,249
	Steam	6,934,002	7,079,153	7,636,226	0	0	0	2,785,641	3,727,320	782,332	340,933
Non-renewable energy sales		5,504,395	5,639,551	5,739,891	0	0	0	4,856,698	761,397	121,796	0
Total cost of energy consumption	KRW million	1,831,778	2,248,301	2,683,845	26,502	23,974	12,930	959,918	987,488	84,503	588,529

Greenhouse Gas Emissions

Greenhouse gas target for year 2025 — **7.8%** reduction on 2025 BAU

Type	Unit	2018									
		2016	2017	Total	SKI (Seosan)	SKI (Jeungpyeong, Cheongju)	SKI (Daejeon)	SKE	SKGC	SKL	SKIPC
Total greenhouse emissions (Scope 1&2)		12,765,304	12,884,478	12,870,112	107,637	110,878	46,429	7,408,923	3,201,257	205,627	1,789,361
By category	Total direct emissions (Scope1)	10,488,609	10,515,926	10,442,108	25,237	39,494	9,159	6,480,338	2,456,521	105,402	1,325,956
	Total indirect emissions (Scope2)	2,276,695	2,368,552	2,428,004	82,400	71,384	37,270	928,585	744,736	100,225	463,405

Water Consumption¹⁾

Water consumption target for year 2025 — **51,956,113m³**

Type	Unit	2018										
		2016	2017	Total	SKI (Seosan)	SKI (Jeungpyeong, Cheongju)	SKI (Daejeon)	SKE (Logistics)	SKE	SKGC	SKL	SKIPC
Total volume of water usage		52,475,816	53,071,840	50,848,388	368,906	622,817	241,538	9,525	32,100,973	12,091,481	891,661	4,521,487
By category	Municipal water supplies	52,461,132	53,063,682	50,846,915	368,906	622,817	241,538	8,052	32,100,973	12,091,481	891,661	4,521,487
	Groundwater (freshwater)	13,768	7,658	1,253	0	0	0	1,253	0	0	0	0
	Rainwater	916	500	220	0	0	0	220	0	0	0	0

1) Percentage of recycled water: 7.6% in 2016, 7.0% in 2017, 7.4% in 2018 (Calculation method: pressurized water and collected amount after filter treatment/amount of introduced industrial water)

* SHE Data Scope of Calculation: Includes SKI (SK innovation), SKE (SK energy), SKGC (SK global chem), SKL (SK lubricants), SKIPC (SK incheon petrochem), SKTI (SK trading international)

Generated Waste

Target volume of generated waste for year 2025 — **135,609tons** Target recycle ratio for year 2025 — **70.4%**

Type	Unit	2018										
		2016	2017	Total	SKI (Seosan)	SKI (Jeungpyeong, Cheongju)	SKI (Daejeon)	SKE (Logistics)	SKE	SKGC	SKL	SKIPC
Total volume of waste generated		111,214	112,002	127,541	6,867	10,133	760	38	75,112	17,540	4,002	13,089
By treatment method	Internally processed (landfill)	0	0	0	0	0	0	0	0	0	0	0
	Processed by agent (incineration, landfill)	39,593	42,150	42,810	542	736	513	37	29,043	5,095	820	6,024
	Processed by agent (recycling)	71,621	69,852	84,732	6,325	9,397	247	1	46,069	12,445	3,182	7,065
	Recycle ratio	64	62	66	92	93	33	4	61	71	80	54
By category	Designated (Hazardous) waste ¹⁾	42,360	50,224	59,322	5,172	7,687	464	38	27,441	5,841	1,554	11,125
	General waste ²⁾	68,854	61,778	68,220	1,695	2,447	296	-	47,671	11,699	2,448	1,964

1) Designated waste: As waste stipulated by Presidential Decree from the Korean government, designated waste refers to any hazardous materials that may contaminate the surrounding environment such as waste oil and waste acid in "industrial wastes", which are generated in the "factory" stipulated in article 2-1 of the Industrial Placement and Factory Construction Act.

2) General waste: Waste generated from a business site excluding designated waste and construction waste

Wastewater Treatment

Type	Unit	2018										
		2016	2017	Total	SKI (Seosan)	SKI (Jeungpyeong, Cheongju)	SKI (Daejeon)	SKE (Logistics)	SKE	SKGC	SKL	SKIPC
Volume of treated wastewater	Tons	18,448,618	17,935,014	17,580,141	0	86,402	0	0	14,528,171	1,292,408	0	1,673,160

Air Pollutant Emissions

Type	Unit	2018										
		2016	2017	Total	SKI (Seosan)	SKI (Jeungpyeong, Cheongju)	SKI (Daejeon)	SKE (Logistics)	SKE	SKGC	SKL	SKIPC
NOx emissions ³⁾		8,188	7,909	8,541	0	0	1	0	6,043	1,458	208	831
SOx emissions	Tons	4,085	3,950	3,103	0	0	0	0	2,696	275	1	131
VOC emissions ⁴⁾		359	332	323	0	0	0	0	60	194	4	65
Dust emissions		200	159	158	1	2	0	0	124	28	2	1

3) Any NOx emissions generated by employees during business trips and commuting are not included.

4) All VOC emissions which are generated from non-methane VOC's and stationary sources are included

Type	Unit	2018							
		2016	2017	Total	SKI	SKE	SKGC	SKL	SKIPC
Hydrocarbon emissions ⁵⁾	Tons	0	0	0	0	0	0	0	
Methane emissions		2,031	2,306	2,109	7	1,958	64	4	76

5) Insignificant volume generated

ESG Data | SHE

Generated Harmful Chemicals

Type	Unit	2016	2017	2018					
				Total	SKI	SKE	SKGC	SKL	SKIPC
Volume of generated harmful chemicals	Tons ¹⁾	71.9	82.9	72.4	0	25.9	37.3	0.2	9

1) Basis of data calculation
 - 2016: Performance based on data reviewed and published by the government
 - 2017: Performance based on volume of chemical emissions reported to the government early 2018
 - 2018: Performance based on chemical emissions collected and calculated for government reporting early 2019

Concentration of Air Pollutants and Wastewater

Category	Type	Unit	2018						
			SKI (Seosan)	SKI (Jeungpyeong)	SKE	SKGC	SKL	SKIPC	
Concentration of air pollutants	NOx concentration	Business site	0	0	85	144.5	49.6	26	
		Legal standard	- ²⁾	- ²⁾	140	180	130	234	
	SOx concentration	Business site	0	0	27	72.1	3	10	
		Legal standard	- ²⁾	- ²⁾	180	180	180	234	
	Dust concentration	Business site	2	1.8	4	3	1.5	0.2	
		Legal standard	50	50	30	30	30	32.9	
Concentration of water pollutants in	COD volume	Business site	0	0.169	12.7	33	0	12	
		Legal standard	- ²⁾	190	40	570	- ²⁾	90	
	BOD volume	Business site	0	0.064	4.5	21	0	2.4	
		Legal standard	- ²⁾	230	10	600	- ²⁾	80	
	SS volume	Business site	0	0.51	6.7	13	0	5.8	
		Legal standard	- ²⁾	180	10	400	- ²⁾	80	

2) Business site where legal standards are not applicable (Not applicable)

Violation of Environmental Regulations

Category	Type	Unit	2018
Violation of environmental regulations	Punishment exceeding fines	Number of incidents	0
		Value	0
	Fine (More than USD 10,000)	Number of incidents	0
		Value	0

Industrial Accidents

Lost-Time Incident Rate (LTIR) target for 2025				0.32					
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Type	Unit	2016	2017	2018						
				Total	SKI	SKE	SKGC	SKL	SKIPC	
Number of fatalities	Employees	0	0	0	0	0	0	0	0	
	Suppliers	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	
Lost Time Incident Rate ¹⁾	Employees	Incident per 1 million work hours	0.32	0.16	0.3	0	0.54	0.46	0	0
	Suppliers	Incident per 1 million work hours	0.54	0.92	1.09	1.65	0.68	0	0	3.95
	Total	Incident per 1 million work hours	0.46	0.57	0.78	1.09	0.63	0.18	0	2.14
Total Recordable Incidents Rate ²⁾	Employees	Incident per 1 million work hours	0.64	0.4	0.67	0.29	0.89	0.91	0	0.78
	Suppliers	Incident per 1 million work hours	0.68	1.5	1.09	1.65	0.68	0	0	3.95
	Total	Incident per 1 million work hours	0.66	1.01	0.93	1.19	0.77	0.37	0	2.5
Occupational Illness Frequency Rate ³⁾	%	0.08	0	0.07	0	0.18	0	0	0	
Industrial Accident Rate ⁴⁾	%	0.09	0.04	0.06	0	0.15	0	0	0	

1) Lost Time Incident Rate (LTIR): Number of lost time incidents x1,000,000/Total number of work hours
 2) Total Recordable Incidents Rate (TRIR): Total number of recordable incidents x1,000,000/Total number of work hours
 3) Occupational Illness Frequency Rate (OIFR): Number of occupational illness occurred x1,000,000/Total number of work hours
 4) Industrial Accident Rate (based on the Enforcement Decree of the Occupational Safety and Health Act): (Number of industry hazards/Total number of employees) x100

Process Safety

Type	Unit	2016	2017	2018				
				Total	SKE	SKGC	SKL	SKIPC
Unplanned Capacity Loss (UCL)	%	0.24	0.16	0.08	0.06	0.13	0.05	0.04
Safety Accidents in the Process (Tier 1)	%	0.03	0.11	0.06	0	0.18	0.61	0

Industrial Safety Training Hours

Type	Unit	2018					
		Total	SKI	SKE	SKGC	SKL	SKIPC
Industry safety training hours	Hours	56,873	26,499	10,987	3,495	820	15,072

ESG Data | Social

Employee Status by Category¹⁾

Type	Unit	2016	2017	2018							
				Total	SKI	SKE	SKGC	SKL	SKIPC	SKTI	
Total workforce ²⁾	Number of employees	Persons	6,045	6,284	6,584	1,872	2,634	1,025	302	623	128
	Ratio	%	100	100	100	28	40	16	5	9	2
By employment type	Regular	Persons	5,915	6,134	6,353	1,808	2,527	1,010	298	585	125
		%	97.8	97.6	96.5	96.6	95.9	98.5	98.7	93.9	97.7
	Temporary	Persons	130	150	231	64	107	15	4	38	3
		%	2.2	2.4	3.5	3.4	4.1	1.5	1.3	6.1	2.3
By gender	Male	Persons	5,388	5,579	5,808	1,460	2,453	943	259	596	97
		%	89.1	88.8	88.2	78.0	93.1	92.0	85.8	95.7	75.8
	Female	Persons	657	705	776	412	181	82	43	27	31
		%	10.9	11.2	11.8	22.0	6.9	8.0	14.2	4.3	24.2
By age	Under 30	Persons	522	533	661	194	233	102	40	72	20
		%	8.6	8.5	10.0	10.4	8.8	10.0	13.2	11.6	15.6
	30 to 54	Persons	3,687	3,702	3,612	1,430	1,097	504	163	325	93
		%	61.0	58.9	54.9	76.4	41.6	49.2	54.0	52.2	72.7
	55 and over	Persons	1,836	2,049	2,311	248	1,304	419	99	226	15
		%	30.4	32.6	35.1	13.2	49.5	40.9	32.8	36.3	11.7
Management ³⁾	Male	Persons	-	2,101	2,211	999	676	248	115	97	76
		%	96.0	92.4	91.6	87.8	97.1	92.5	92.7	96.0	88.4
	Female	Persons	-	172	202	139	20	20	9	4	10
		%	4.0	7.6	8.4	12.2	2.9	7.5	7.3	4.0	11.6

1) Advisors excluded

2) Local recruited employees at an overseas business site excluded

3) Manager or higher position

Employee Diversity

Type	Unit	2016	2017	2018						
				Total	SKI	SKE	SKGC	SKL	SKIPC	SKTI
Disabled	Persons	94	111	96	22	41	16	5	11	1
Patriots and Veterans	Persons	265	288	300	42	144	64	12	38	0

Use of Childcare Leave and Rate of Return

Type	Unit	2016	2017	2018							
				Total	SKI	SKE	SKGC	SKL	SKIPC	SKTI	
Number of employees who used childcare leave	Male	Persons	2	5	5	1	2	2	0	0	0
	Female	Persons	65	71	62	32	19	5	3	1	2
Number of employees returning from childcare leave who worked at least 12 months following return	Male	Persons	2	2	3	0	2	1	0	0	0
	Female	Persons	48	65	43	25	11	2	2	0	3

Labor Union Registration Rate¹⁾

Type	Unit	2018						
		Total	SKI	SKE	SKGC	SKL	SKIPC	SKTI
Ratio of labor union membership		45.5	9.4	60.6	63.8	33.4	72.6	0
Ratio of collective bargaining applied	%	100	100	100	100	100	100	100

1) In accordance with Article 35 of 'Trade Union and Labor Relations Adjustment Act', when a single union agreement is applied to the majority of a workers in a company or plant, the identical agreement that year is applied to other workers employed for that years' business or plants.

Education Performance

Type	Unit	2016	2017	2018						
				Total	SKI	SKE	SKGC	SKL	SKIPC	SKTI
Education hours per employee ²⁾	Hours	27.3	55.3	91.9	87.4	92.6	114.6	117.0	61.7	47.5
Education expense per employee	KRW million	-	3.43	5.63	2.72	2.05	3.65	2.21	2.55	

2) Increase in training hours per person due to changes in calculation standard and education time.

Employee Engagement Rate

Type	Unit	2016	2017	2018
Employee Engagement Rate	Points	88	91	93
Scope of data	%	100	100	100

ESG Data | Social

Performance of Volunteer Groups

Type	Unit	2018						
		Total	SKI	SKE	SKGC	SKL	SKIPC	SKTI
Number of activities	Case	13,655	3,949	5,943	1,476	502	1,600	185
Hours	Hours	49,168	16,506	19,385	4,517	2,015	5,814	931
Number of volunteer teams	Team	71	19	33	7	4	7	1
Participants	Person	5862	1,602	2,417	894	259	607	83

Social Contribution Activities

		Target investment ratio for local community — 75%		
Type	Unit	2016	2017	2018
Social contribution ratio ¹⁾²⁾	KRW 100 billion	416	269	349

1) KRW 34.57 billion on cash contributions, KRW 350 million on In-kind giving, KRW 1.63 billion (49,167 hours) on employee volunteering during paid working hours, and KRW 16.1 billion on Management overheads
 2) Local community investment ratio of 60.8% in 2016, 70.6% in 2017, 70.0% in 2018

Current Status of Major Donations

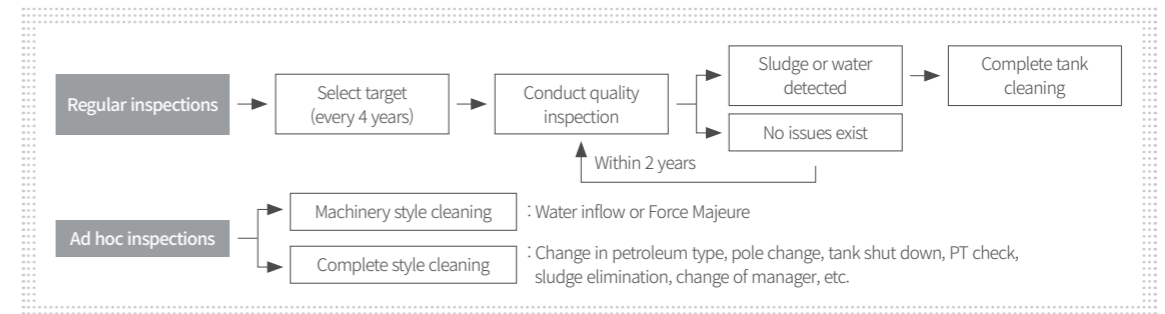
Beneficiary organization	Programs
Shinseok Foundation	Establishment of institution
CSES Foundation	Establishment of institution
Jonghyun Academic Foundation	Establishment of institution
The Happiness Foundation	Aid in Sulawesi area after massive earthquake, Happiness Alliance to help children missing meals
The Korean Foundation for Advanced Studies	Academic support and cultivation of exceptional talent
Community Chest of Korea	Year-end charity fund for the disadvantaged
Seoul National University	Donation of idle research equipment
KOFCA	Support Industry Innovation 4.0
Korean Red Cross	Restore Laos from flood damage
Pro-synergy	Provide operating fees for agricultural social enterprise Yachaywasi etc.
SEN	Establish promotional social enterprises
UNEP National Committee for the Republic of Korea	Plant mangrove trees
ChildFund Korea	Find missing children
Work Together Foundation	Public contest to stimulate social economy
Rice University / Ho Chi Minh University	Scholarship support

Customer and Quality Management

Type	Detailed contents	Unit	2016	2017	2018
Customer satisfaction	KSCI		1 st place	1 st place	1 st place (8 consecutive years)
Customer complaint processing	Number of complaints	number of complaints	2,100	2,319	3,031
	Complaints process rate	%	100	100	100
Quality inspection	Service station quality inspection	Number of inspections	12,008	11,982	11,998

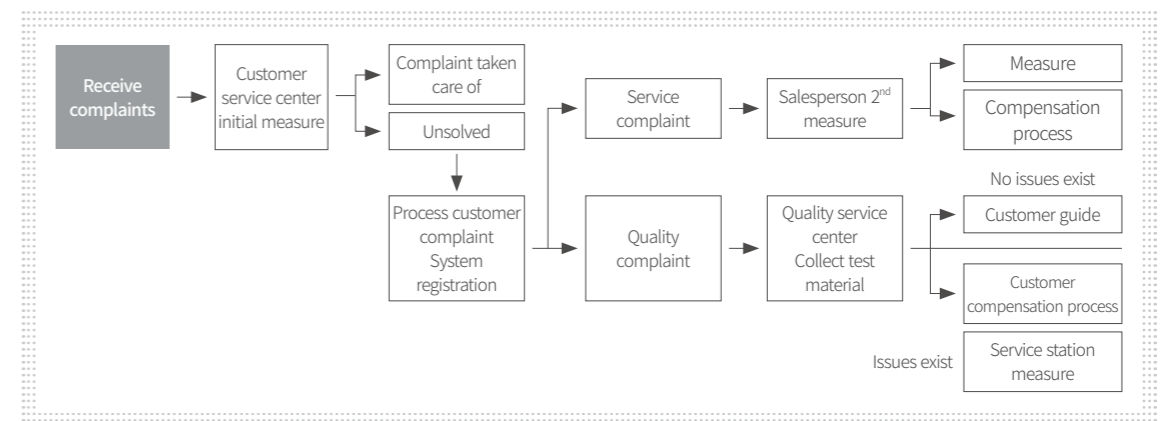
Product Quality Control Process

SK energy conducts regular quality inspections to manage quality at the point of contact with customers. We clean out all tanks in the according service station if we detect water or sludge during our periodical quality checks. In addition, when cleaning is necessary excluding inspection periods, we conduct machinery style or complete tank cleaning on an ad hoc basis to improve customers' reliability on quality.



Registration Process of Customer Complaints

Our rule is to solve customer complaints on the day of occurrence. We developed a system to share our process (CCS) so that complaints are categorized into service or quality and promptly sent to according authorities and processed.



ESG Data | Social

GRI Index

Current Status of Corporate Tax Payment¹⁾

Item	Type	Unit	2018			
			Revenue	Operating profit	Taxes and public utilities' charge	Corporate tax payment
By country	Korea		757,347	42,347	298	8,966
	Netherlands		6,412	42	2	6
	USA		18,486	(65)	7	33
	Spain		6,104	219	2	35
	Singapore		284,698	279	1	12
	England		57,821	(115)	2	75
	Indonesia		3,753	219	1	65
	Japan		5,942	12	1	5
	China	KRW 100 billion	23,048	68	17	13
	Russia		503	33	1	6
	Other (connect and adjust)		(619,005)	(21,862)	5	(2,113)
Total		545,109	21,176	335	7,104	
By region	Korea		757,347	42,347	298	8,966
	Asia		317,441	572	22	102
	Europe		70,852	176	7	123
	etc.		(600,531)	(21,919)	8	(2,087)
	Total		545,109	21,176	335	7,104

1) It is regional information on the consolidated target (based on the location), and internal transactions between consolidated targets are adjusted and reflected in the category of others.

Type	Unit	2017	2018	Average (notes)
Earnings before Tax		3,220,824	2,420,374	
Reported Taxes	KRW million	1,075,722	710,390	Income statement
Effective Tax Rate		33.40	29.40	31.40
Cash Taxes Paid		651,275	732,514	Statement of cash flow
Cash Tax Rate	%	20.20	30.30	25.25

Type	Unit	2017	2018	Average (notes)
Nominal tax amount vs. actual tax amount		424,447	(22,124)	
Difference in reversion period				
• Period of corporate tax payment: March to May of the following year		159,153	(163,196)	
Temporary difference				
• Reflected gains on valuation by subsidiary company		150,069	27,667	
• Increase in domestic tax ratio (24.2% → 27.5%)	KRW million			
Permanent difference				
• Damage in the subsidiary company not recognized		35,812	6,239	
Tax amount exemption and reduction difference				
• Tax amount exemption and reduction, non-exempt overseas paid tax amount		56,482	101,265	
Other differences				
• Tentative and fixed difference		22,931	5,901	

Current Status of Contributions for Membership Associations and Groups²⁾

Type	Unit	2014	2015	2016	2017	2018
Total annual contribution	KRW million	3,081	2,834	2,961	2,855	3,112

2) In accordance with the Political Fund Act of Korea and SK innovation Code of Ethics Guidelines, it is strictly prohibited to provide donations and sponsorship for political purposes by using corporate assets and budgets.

Major groups for contribution	Type	Unit	2014	2015	2016	2017	2018
Korea Petroleum Association	Contribution		1,650	1,452	1,619	1,486	1,491
Korea Petrochemical Industry Association	Contribution		140	154	156	154	152
Korea Oil Association	Contribution	KRW million	78	74	72	101	286
Korea Chemical Industry Council	Contribution		26	26	26	26	26
Korea Oil Station Association	Contribution		14	14	14	14	83

General Standards Disclosure

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Independent Auditors' Report

To the Stockholders and the Board of Directors of
SK Innovation Co., Ltd.:

Our Opinion

We have audited the accompanying consolidated financial statements of SK Innovation Co., Ltd. and its subsidiaries (the "Group"), which comprise the statements of financial position as of December 31, 2018 and December 31, 2017, respectively, and the consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Group as of December 31, 2018 and December 31, 2017, respectively, and its financial performance and its cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("K-IFRSs").

Basis for Audit Opinion

We conducted our audits in accordance with the Korean Standards on Auditing ("KSAs"). Our responsibilities under those standards are further described in the Auditor's Responsibility for the Audit of the Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements, including those related to independence, that are relevant to our audit of the consolidated financial statements in the Republic of Korea as required by prevailing audit regulations. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our Key Audit Matters

The key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon, and we do not provide a separate opinion in these matters.

(1) Valuation of inventories

As of December 31, 2018, the book value of inventories held by the Group in the petroleum business, petrochemical business and lubricant business amounted to ₩6,021,993 million, which accounted for approximately 17% of total assets, and as international oil and related product prices showed a significant decline for the quarter ended December 31, 2018, the valuation of inventories could have a significant impact on the Group's performance. In addition, as described in Note 3, the valuation of inventories requires management's judgment on estimation of sales prices and selling expenses. Given the uncertainty of these estimates and the monetary significance associated with the valuation of inventories, we have determined that the valuation of inventories is a key audit matter.

The audit procedures we performed for this key audit matter included:

- obtaining an understanding of the Group's accounting policies related to the valuation of inventories;
- obtaining an understanding of the Group's internal controls over valuation of inventories and assessed effectiveness of design of the controls and implementation of the controls;
- obtaining understanding on the management's methodology used in estimating selling price and selling expenses and assessed appropriateness thereof;
- inspecting supporting documents related to estimated selling price on a sample of inventories;
- recalculating the valuation of inventories; and
- testing the disclosures in the financial statements and checked for compliance with K-IFRS 1002 inventories.

(2) Allocation of purchase price in relation to acquisition of Dow Chemical's EAA and PVDC businesses

As described in Note 35, the Group acquired the EAA business, PVDC business and all tangible and intangible assets in the U.S. and

Independent Auditors' Report

Spain from Dow Chemical Company in 2017, in accordance with resolution of board of directors in 2017. The consideration was ₩458,900 million and the identifiable net assets including intangible assets were measured at ₩346,172 million and goodwill amounting to ₩112,728 million was recognized.

The Group completed the accounting for the business combinations by retrospectively adjusting the provisional amounts recognized at the acquisition date as the measurement period in accordance with KIFRS 1103 ended during the current period. This includes allocating consideration transferred to various identifiable assets and liabilities, and adjusting goodwill. Management used independent external experts to measure the fair value of identifiable assets and liabilities.

We have determined that the allocation of purchase price related to those business combinations is a key audit matter considering the significance of the assets and liabilities recognized in relation to the business combinations and significance of management's judgment and assumptions used in measuring the assets and liabilities.

The audit procedures we performed for this key audit matter included:

- obtaining an understanding of the business combination by reviewing the asset purchase agreement;
- obtaining an understanding of the methodology applied in allocating the purchase price across intangible assets and goodwill and in measuring identified assets, with support from our valuation experts;
- considering whether management had identified all potential intangible assets based on our understanding of the acquired business and significant contracts;
- assessing appropriateness of the key assumptions in the valuation models, including the discount rate used in measuring the identifiable assets by comparing to available external data;
- recalculating the valuation of identified intangible assets;
- comparing the forecasts used within the intangible asset valuation model to the management-approved budgets; and
- testing the disclosures in the financial statements and checked for compliance with K-IFRS 1103 Business Combinations.

Emphasis of Matter

As mentioned in Note 35, the Group acquired all of the Dow Chemical Company's EAA businesses and PVDC businesses and the related tangible and intangible assets. Some of the identifiable net assets acquired from the business combination were presented as provisional amounts by the end of the prior reporting period because the fair value assessment had not been completed. For the year ended December 31, 2018, new information on the pertinent facts and circumstances existing at the acquisition date was obtained and the provisional amount of the identifiable net assets recognized at the acquisition date was retrospectively adjusted.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation of the accompanying consolidated financial statements in accordance with K-IFRSs, and for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management of the Group is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance's responsibilities include overseeing the Group's financial reporting process.

Auditors' Responsibility for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material

misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

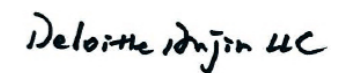
- Identify and assess the risks of material misstatement of the financial statements, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance of the Group regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance of the Group with a statement that we have complied with relevant ethical requirements, including those related to independence, and to communicate with them all matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

The engagement partner on the audit resulting in this independent auditor's report is Eui Yeoul Song



March 5, 2019

This report is effective as of March 5, 2019, the auditors' report date. Certain subsequent events or circumstances may have occurred between the auditors' report date and the time the auditors' report is read. Such events or circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to the auditors' report.

Financial Statements

Consolidated Financial Statements

(Unit: KRW thousand)

Classification	2017	2018
Assets		
I . Total Current Assets	16,220,201,245	16,752,415,052
1. Cash and cash equivalents	2,003,740,408	1,855,920,813
2. Short-term financial instruments	2,245,428,888	2,671,963,400
3. Trade accounts receivable	4,821,306,591	4,459,724,118
4. Long-term investment securities	-	2,591,171
5. Short-term loans	59,855,377	43,557,329
6. Other accounts receivable	476,188,351	696,153,342
7. Accrued income	5,094,087	5,083,257
8. Advance payments	354,825,152	470,829,270
9. Prepaid expenses	47,616,001	47,657,894
10. Current tax assets	10,396,005	9,266,155
11. Guarantee deposits	164,739,997	171,808,083
12. Derivative financial assets	34,080,164	72,206,845
13. Inventories	5,979,634,285	6,179,806,214
14. Other current assets	17,295,939	347,161
15. Assets classified as held for sales	-	65,500,000
II . Total Non-current Assets	18,029,945,245	19,332,969,018
1. Long-term financial instruments	4,501,038	4,720,012
2. Long-term trade accounts receivable	152,927	78,836
3. Long-term investment securities	276,337,835	333,183,684
4. Investments in associates and jointly controlled entities	2,431,188,073	2,881,803,332
5. Long-term other accounts receivable	16,832,318	12,857,090
6. Long-term loans	106,319,861	196,249,453
7. Property, plant and equipment	13,596,238,753	13,798,178,396
8. Goodwill and Intangible assets	1,501,386,906	2,006,974,502
9. Long-term guarantee deposits	28,353,284	42,593,848
10. Derivative financial assets	1,975,292	8,502,747
11. Deferred income tax assets	37,675,259	24,014,790
12. Other non-current assets	28,983,699	23,812,328
Total Assets	34,250,146,490	36,085,384,070

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(Unit: KRW thousand)

Classification	2017	2018
Liabilities		
I . Total Current Liabilities	9,954,805,119	8,940,623,415
1. Short-term borrowings	242,879,213	153,742,080
2. Trade accounts payable	5,265,305,725	4,650,028,501
3. Other accounts payable	446,758,318	465,592,378
4. Accrued expenses	1,163,595,878	1,344,051,227
5. Advance received	80,431,806	117,420,458
6. Withholdings	841,490,319	642,790,322
7. Leasehold deposits received	13,412,485	12,357,819
8. Current tax liabilities	481,010,956	221,764,790
9. Derivative financial liabilities	90,768,855	55,846,355
10. Other current liabilities	56,723,383	55,505,516
11. Current portion of long-term debt	1,272,428,181	1,221,523,969
II . Total Non-current Liabilities	4,986,008,472	7,816,777,990
1. Bonds payable and long-term borrowings	4,062,637,332	6,648,068,076
2. Retirement benefit obligation	76,158,303	78,446,689
3. Long-term provisions	100,553,633	119,944,900
4. Financial guarantee liabilities	1,131,271	721,035
5. Deferred income tax liabilities	731,132,521	946,917,218
6. Other accounts payable	6,539,755	12,590,361
7. Other non-current liabilities	7,855,657	10,089,711
Total Liabilities	14,940,813,591	16,757,401,405
Equity		
I . Total Equity Attributable to the Owners' of the Company	18,085,779,250	18,124,447,803
1. Capital stock	468,569,950	468,569,950
2. Other paid-in capital	5,629,672,498	4,628,540,029
3. Retained earnings	12,041,707,802	12,930,338,005
4. Other capital components	(54,171,000)	96,999,819
II . Non-controlling interests	1,223,553,649	1,203,534,862
Total Equity	19,309,332,899	19,327,982,665
Total Liabilities and Equity	34,250,146,490	36,085,384,070

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Financial Statements

Consolidated Statements of Comprehensive Income

(Unit: KRW thousand)

Classification	2017	2018
I. Sales	46,162,655,997	54,510,898,386
II. Cost of Sales	40,824,841,000	50,529,216,158
III. Gross Profit	5,337,814,997	3,981,682,228
IV. Selling and Administrative Expenses	2,116,028,938	1,864,092,438
V. Operating Income	3,221,786,059	2,117,589,790
Financial income - interest income calculated using effective interest method	-	40,226,278
Financial income - others	-	3,141,034,659
Financial income	1,882,361,310	-
Finance costs	2,050,667,110	2,949,103,372
Gain related to investments in associates and jointly controlled entities, net	311,316,658	155,164,442
Other non-operating income	79,579,055	109,416,494
Other non-operating expenses	220,699,009	211,975,494
VI. Income from Continuing Operation before Income Tax Expense	3,223,676,963	2,402,352,797
VII. Income Tax Expense	1,076,412,588	705,434,099
VIII. Income from Continuing Operations	2,147,264,375	1,696,918,698
IX. Income (Loss) from Discontinued Operations	(2,162,647)	13,065,343
X. Net Income	2,145,101,728	1,709,984,041
Attributable to Owners of the Company	2,103,771,293	1,651,472,381
Attributable to Non-controlling interests	41,330,435	58,511,660
XI. Other Comprehensive Income (Loss)	(266,979,155)	110,107,348
1. Items not reclassified subsequently to profit or loss:	2,842,547	(28,830,557)
Net change in fair value of financial assets measured at FVTOCI	-	(12,771,446)
Remeasurement of defined benefit plan	12,709,665	(19,519,151)
Net gain (loss) on translation of foreign operations	(9,867,118)	3,460,040
2. Items reclassified subsequently to profit or loss:	(269,821,702)	138,937,905
Net change in fair value of financial assets measured at FVTOCI	-	49,592
Net change in fair value of available-for-sale("AFS") financial assets	25,168,336	-
Equity adjustments of investments in associates and jointly controlled entities	(145,009,674)	58,819,987
Net gain (loss) on translation of foreign operations	(150,071,422)	71,897,840
Net change on valuation of derivative financial instruments	91,058	8,170,486
XII. Total Comprehensive Income	1,878,122,573	1,820,091,389
Attributable to Owners of the Company	1,846,659,256	1,758,119,689
Attributable to Non-controlling interests	31,463,317	61,971,700
XIII. Earnings Per Share		
1. Basic earnings per share	22,574원	18,267원
2. Basic earnings per share of preferred stocks	22,624원	18,317원
3. Basic earnings per share from continuing operations	22,597원	18,123원
4. Basic earnings per share of preferred stocks from continuing operations	22,647원	18,173원

Independent Assurance Statement

Introduction

SK innovation Co., Ltd. ("SK innovation") commissioned DNV GL Business Assurance Korea, Ltd. ("DNV GL"), part of DNV GL Group, to undertake independent assurance of SK innovation Sustainability Report 2018 (the "Report"). The directors of SK innovation have sole responsibility for the preparation of the Report. The responsibility of DNV GL in performing the assurance work is to the management of SK innovation in accordance with the terms of reference. DNV GL's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been prepared in good faith.

Scope and Basis of Assurance

Based on non-financial data and sustainability activities and performance data of 2018 generated from SK innovation, we have evaluated the adherence to GRI Standards and assessed the quality of sustainability performance information. We have reviewed that the Topic-specific disclosures of GRI Standards with are identified in the process for defining report content;

	Material Topic	GRI Disclosure		Material Topic	GRI Disclosure
1	Response to climate change	305-1	4	Implementing a safe workplace	403-1
2	Sustainable supply chain management	308-1, 414-1	5	Community engagement	413-1

We've performed our work using DNV GL's assurance methodology VeriSustain™, which is based on our professional experience, international assurance best practice including International Standard on Assurance Engagements 3000 (ISAE 3000). We applied the limited level of assurance. The audit was carried out from April and till June 2019. The site visits were made to the headquarters of SK innovation in Seoul and Ulsan Complex. We undertook the following activities as part of the assurance process:

- challenged the sustainability-related statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls;
- interviewed representatives from the various departments;
- conducted document reviews, data sampling and interrogation of supporting databases and associated reporting systems as they relate to selected content and performance data;
- reviewed the materiality assessment report;
- visited Ulsan Complex (SK energy, SK global chemical and SK lubricants) and tested the environmental data gathering process.

Limitations

The engagement excludes the sustainability management, performance and reporting practices of SK innovation's subsidiaries, associated companies, suppliers, contractors and any third-parties except for SK innovation, and its 5 major subsidiaries (SK energy, SK global chemical, SK lubricants, SK incheon petrochem and SK trading international). DNV GL did not interview external stakeholders as part of this Assurance Engagement. Economic performance based on the financial data is cross-checked with internal documents, the audited consolidated financial statements and the announcement disclosed at the website of Korea Financial Supervisory Service (<http://dart.fss.or.kr>) as well as SK innovation's website (<http://www.skinnovation.com>). These documents, financial statements and the announcements are not included in this Assurance Engagement. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. The baseline data for Environmental and Social performance are not verified, while the aggregated data at the corporate level are used for the verification. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

Conclusion

On the basis of the work undertaken, nothing comes to our attention to suggest that the Report does not properly address the adherence to the Principles for defining report content in GRI Standards nor is prepared 'in accordance' with GRI Standards Core option. Further opinions with regards to the adherence to the Principles are made below;

Stakeholder Inclusiveness

SK innovation has identified internal and external stakeholder groups such as Customers, Employees, Shareholders/Investors, Local communities

Greenhouse Gas Verification Statement

GHG Verification Summary

SK Innovation Co., Ltd.

26, Jongno, Jongno-gu, Seoul Special City, Korea

Verification Scope

Korean Standards Association has conducted reasonable GHG emissions verification based on GHG report provided by SK Innovation Co., Ltd. which includes Scope1 and Scope2 emissions.

Verification Standards and Guidelines

To conduct verification activities, verification team applied verification standards and guidelines. The standards and guidelines are as follows.

- GHG&Energy Target Scheme guideline(2016-255) provided by Ministry of Environment, Republic of Korea
- Verification guideline for management of GHG emissions trading scheme(2018-070) provided by Ministry of Environment, Republic of Korea
- KS Q ISO 14064-1,2,3: 2006
- IPCC Guideline

Verification Conclusion

As a result of verification activities, verification team has found no significant errors. Therefore, Korean Standards Association confirms that following emissions data are adequately quantified.

2018 GHG Emissions (Unit: tonCO₂eq)

Subject	Scope 1	Scope 2	Total
SK innovation Co., Ltd.	73,891	191,053	264,942
SK energy Co., Ltd.	6,480,338	928,585	7,408,923
SK global chemical Co., Ltd.	2,456,521	744,736	3,201,256
SK incheon petrochem Co., Ltd.	1,325,956	463,405	1,789,360
SK lubricants Co., Ltd.	105,402	100,225	205,626

※ There is a difference between the total quantity of GHG emission and the sum of each workplace's emission. (Decimal place is not considered when calculating the emission of each workplace.)

May 29, 2019



KOREAN STANDARDS ASSOCIATION

and Suppliers. SK innovation engages with the stakeholders at the conglomerate, company and business unit levels through various channels. The examples of approaches to engage with the selected stakeholders and relevant organizations are described in the Report. In addition, SK innovation reports on key issues of interest to stakeholders in 2018 and their changes. and Suppliers. SK innovation engages with the stakeholders at the conglomerate, company and business unit levels through various channels. The examples of approaches to engage with the selected stakeholders and relevant organizations are described in the Report. In addition, SK innovation reports on key issues of interest to stakeholders in 2018 and their changes.

Sustainability Context

The Report shows the strategic direction of SK innovation to stakeholders. In addition, the Report presents the stakeholder impact assessment on the material topics, reasons for selecting material topics, SK innovation's management approach and performance indicators. These would help the stakeholder understand the management approaches toward the material topics. In addition, SK innovation reports its contribution to achieve UN SDGs and the Double Bottom Line (DBL) strategy with which SK innovation pursues to create not only economic values but also social values. The report explains its efforts to increase social value (SV) in all management activities. SK innovation addresses in the Report what was the key performances achieved in 2018.

Materiality

SK innovation has conducted the materiality assessment to prepare the Report. The relevant 35 issue pool is formed by analysing the material topics from the global sustainability initiatives and standards, the topics which industry peer group considers material and the subjects covered by mass media. The issues in the pool are rated by combining the level of impact on SK innovation's business and level of stakeholders' interest in the issue. SK innovation used the internal and external stakeholder survey to prioritize the issues to the most relevant 10 issues out of which 4 material topics are selected at the end. SK innovation has considered the relevance and significance with the core growth strategy, the current management status, industry issues, and internal and external stakeholder issues in the assessment. In additional, SK innovation has presented the relevance of SK innovation's financial, reputation, operational, and strategic aspects to the selected material topics. The assurance team reviewed the materiality assessment process and confirmed that the material topics prioritized from the process are addressed in the Report.

Completeness

The Report has covered the sustainability management approach and sustainability performances of SK innovation for the reporting period. The reporting boundary has been set to include SK innovation and major subsidiaries (SK energy, SK global chemical, SK lubricants, SK incheon petrochem, SK trading international) which have headquarters in Seoul and production plants in Jeungpyeong, Cheongju, Seosan, Ulsan and Incheon, and Daejeon Global Technology and it covers 99% of revenue from SK innovation and its subsidiary sales. The assurance team has not noted any intentional omission of the performance results on material topics within the reporting boundary.

Comparability, Accuracy, Timeliness, Clarity and Reliability

The audit team has sampled data and tested accuracy and reliability. Especially DNV GL reviewed the reliability of the subject data - water consumption, waste volume, air emissions (NOx, SOx, VOC and Hydrocarbons), Occupational safety indicators (Lost Time Incident Rate (LTIR), Total Recordable Incidents Rate (TRIR), number of fatality) and process safety indicator (process safety accident rate). The assurance team interviewed the responsible for the subject data handling and reviewed the data gathering process with the supporting documents and records. The depth of data verification is limited to the aggregated data level. Based on the test, the intentional error or misstatement is not noted. Data owners were able to demonstrate to trace the origin of the data and to interpret the processed data in a reliable manner. The data was identifiable and traceable.

Competence and Independence

DNV GL applies its own management standards and compliance policies for quality control, in accordance with DNV GL applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV GL Code of Conduct during the assurance engagement and maintain independence where required by relevant ethical requirements. DNV GL was not involved in the preparation of statements or data included in the Report except for this Assurance Statement. DNV GL maintains complete impartiality toward stakeholders interviewed during the assurance process. DNV GL have no other contract with SK innovation and did not provide any services to SK Innovation in 2019 that could compromise the independence or impartiality of our work.

June 2019 Seoul, Korea

Jang-Sub Lee

Country Representative

DNV GL Business Assurance Korea, Ltd.




Membership Status

SK innovation participates in various associations and groups in each economic, social and environmental sector to identify major internal and external trends, as well as to reinforce networking with diverse stakeholders. We will strengthen the executive power and professionalism in sustainability management further through proactive external initiative activities.

Economy	SHE	Society
<ul style="list-style-type: none"> • Korea Economic Research Institute • Korea Business Council for Sustainable Development (KBCSD) • Korean Fair Competition Federation • Association of Energy Future Forum • World Petroleum Council (WPC) Korean Member Committee 	<ul style="list-style-type: none"> • Mae Kyung Safety & Environment Institute • Korea Institute of Hazardous Materials • Korean Society for Marine Environment and Energy • Korean Environmental Preservation Association • Korea Environmental Policy and Administration Society • Korea Chemicals Management Association • Korea Fire Safety Association • Oil Refining Safety and Environment Committee 	<ul style="list-style-type: none"> • UN Global Compact



The 10 Principles of UNGC (United Nations Global Compact)

SK innovation supports the philosophy of UNGC and proactively engages in UNGC activities. Furthermore, SK innovation faithfully complies with each of the ten principles through company's sustainability management activities.

Type	Policies and activities of SK innovation
Human rights	<p>Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights</p> <p>Principle 2: Make sure that businesses are not complicit in human right abuses.</p> <p>Principle 3: Business should uphold the freedom of association and the effective recognition of the right to collective bargaining.</p>
Labor	<p>Principle 4: The elimination of all forms of forced and compulsory labor.</p> <p>Principle 5: The effective abolition of child labor.</p> <p>Principle 6: The elimination of discrimination in respect of employment and occupation.</p>
Environment	<p>Principle 7: Business should support a precautionary approach to environmental challenges.</p> <p>Principle 8: Undertake initiatives to promote greater environmental responsibility.</p> <p>Principle 9: Encourage the development and diffusion of environmentally friendly technologies.</p>
Anti-Corruption	<p>Principle 10: Business should work against corruption in all its forms, including extortion and bribery.</p>

KCGS ESG Evaluation in 2018

Total **A** | Environmental(E) **B+** | Social(S) **A+** | Governance(G) **A**

Publication History of Sustainability Report

Cover Story



Based on the belief that complete innovation can only be accomplished through clear change, coupled with Green Innovation, SK innovation aspires to spread social value worldwide.

2018

2010's



2000's



ABOUT THIS REPORT

Reporting Information

SK innovation has been publishing annual sustainability reports since 2005 in order to transparently publicize our major efforts and performance in pursuing sustainability as well as communicate actively with stakeholders. We will continue to gather opinions of our stakeholders in our sustainability report to include in our business operations.

Reporting Standard

This report was prepared in accordance with the Standards (Core Option) of the GRI (Global Reporting Initiative) as well as Oil & Gas Sector disclosure and SASB (Sustainability Accounting Standards Board) to cover important industrial issues. It also reflects the Ten Principles of UNGC (UN Global Compact) and UN SDGs (Sustainable Development Goals).

Reporting Period

This report covers our sustainability performance during the fiscal year (January 1, 2018 to December 31, 2018). Some of the highlights over the first half of 2019 are included in this report to ensure their prompt disclosure. Certain indicators for the past three years are included for continuous trend analysis.

Reporting Scope

As for the scope of this report, financial data has the same consolidation criteria as K-IFRS (Korea International Financial Reporting Standards). Non-financial data are limited to SK innovation and major subsidiaries' headquarters in Seoul (SK energy, SK global chemical, SK lubricants, SK incheon petrochem, SK trading international), production plants in Jeungpyeong, Cheongju, Seosan, Ulsan and Incheon, Daejeon Global Technology Institute and major subsidiaries and sub-subsidiaries of overseas corporations. This scope includes 99% of sales by the main body of SK innovation and subsidiaries having 100% of shares (except for SK mobile energy and SK battery systems). Some environmental quantitative performance indicators were based on major domestic operations except for overseas corporations; the detailed scope of such data is indicated separately.

Reporting Reliability

This report has been published upon review by the Board of Directors' CSR Committee to enhance the appropriateness of the content. In addition, DNV GL, a third-party assurance provider, has evaluated the contents and data of this Report according to IS AE3000, limited level of assurance, to ensure objectivity and transparency. Reliability assurance engagement was performed on certain performance information.

MEMBER OF
Dow Jones
Sustainability Indices
 In Collaboration with RobecoSAM

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SKenergy

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SKlubricants

SKincheon petrochem

SKtrading international