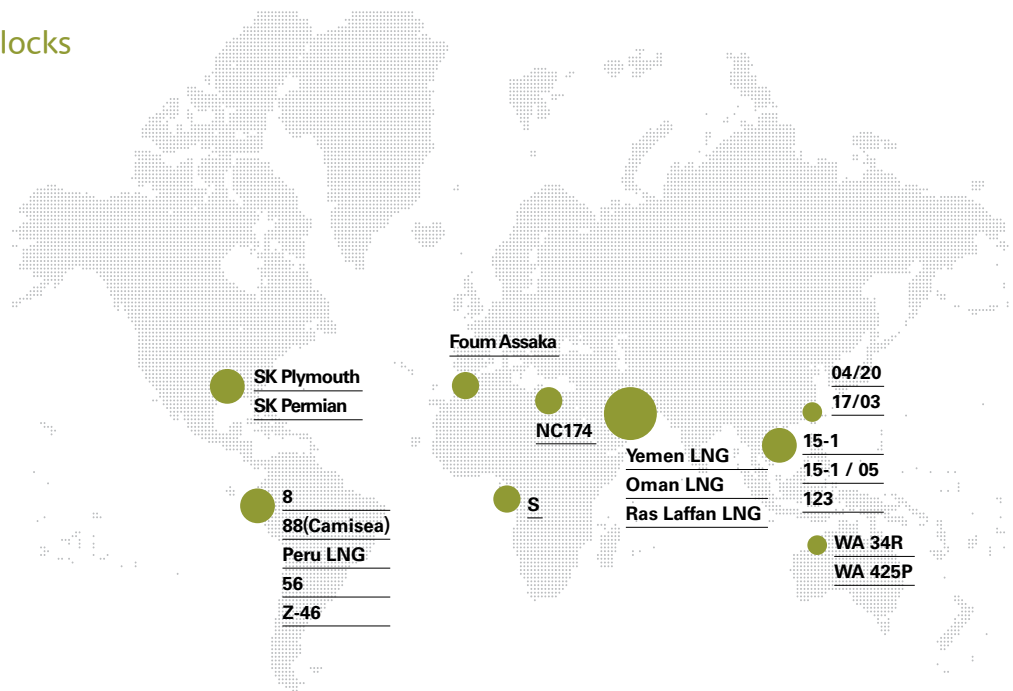


SK innovation Exploration & Production (E&P)

SK innovation is actively engaged in Exploration and Production (E&P) business around the world, participating in 16 production blocks and four LNG projects in 11 countries as of the end of December 2015. SK innovation’s production blocks in countries such as Peru and Vietnam produce approximately 63 thousand barrels of oil equivalent per day (BPD). With the proven reserves totaling 550 million BPD or the equivalent of an eight-month supply for Korea, SK innovation is helping Korea secure energy resources and contributing to its economic growth.

Overview of Blocks



LNG Projects

Country	Project Name	Participating Since
Yemen	Yemen LNG	1997
Oman	Oman LNG	1996
Qatar	Ras Laffan LNG	1999
Peru	Peru LNG	2003

Exploration Blocks

Country	Block Name	Participating Since
Morocco	Fom Assaka	2013
Vietnam	15-1/05	2007
	123	2008
Equatorial Guinea	S	2009
Australia	WA 34R	1998
	WA 425P	2009
China	04/20	2015
	17/03	2015
Peru	Z-46	2008

Production Blocks

Country	Block Name	Participating Since
Libya	NC174	2000
U.S.	SK Plymouth	2014
	SK Permian	2014
Vietnam	15-1	1998
Peru	8	1996
	88 (Camisea)	2000
	56	2004



Overview of Major Overseas Development Regions

(1) **Unconventional resources:** Shale Gas, Oil sands, Ultra-heavy oil and other resources that are difficult to extract with conventional methods

Vietnam

After acquiring exploration rights in Block 15-1 in Vietnam, SK innovation carried out exploration and development for five years and started production in 2003. In September 2014, we successfully made additional developments, making the Su Tu Nau field our fourth oil field. This was an exceptional case of a Korean private company undertaking the entire process from exploration and development to commercial production.

Peru

After starting crude oil production in Block 8 of Peru, SK innovation began production at Blocks 88 and 56 in 2004 and 2008, respectively. In 2010, the Peru LNG project was completed with the construction of the company's own LNG plant as part of the value chain consisting of E&P, pipeline transportation, LNG production, and exports. With the plant's completion, SK innovation achieved vertical integration and is now able to manage the entire value chain from exploration to sale of products.

U.S.

SK innovation accelerated its advancement into the U.S., the hub of the Shale Revolution, by acquiring assets in Oklahoma and Texas in March 2014. In Oklahoma, it successfully reduced the drilling time and increased the daily production volume by 30% with an effective drilling method. SK innovation is propelling its E&P business capacity forward by obtaining the U.S.'s unconventional⁽¹⁾ E&P technology and know-how through its operation of production blocks in the U.S.

China

In 2015, SK innovation became the first Korean company to venture into the South China Sea. The two blocks (04/20, 17/03) are shallow in depth ranging from 50 to 400 meters, allowing relatively low-cost exploration and drilling. The location of the blocks near China and Korea serves as an advantage that could reduce transportation fees, making them even more promising assets. With Blocks 04/20 and 17/03 each being 2.8 times (5,138km²) and 4 times (7,686km²) the size of Jeju Island, SK innovation established a branch in Shenzhen for exploration activities and is developing the blocks jointly with China National Offshore Oil Corporation (CNOOC).

SK innovation wrote success stories in Yemen's Marib, Vietnam, and Peru, built its reputation and became a trusted business partner. Currently, SK innovation is strengthening its business portfolio consisting of exploration, development, and production by exploring in strategic locations and acquiring new blocks. In 2016, SK innovation will maximize the production efficiency in the existing blocks and continue development activities to discover additional reserves to maintain reliable sources of revenues. Furthermore, exploration at the two new blocks in China will be carried out promptly. Moreover, we will accumulate our experience and continue to strengthen our technological competitiveness by securing talented E&P professionals through M&As and acquisition of production blocks.

Future Plans

SK innovation Batteries and Information & Electronics Materials (B&I)

SK innovation has integrated the entire value chain for battery manufacturing and is maintaining its cooperative relationship with global automotive manufacturers to strengthen its position in the global battery industry. In addition, building on over 50 years of chemical technology competency, SK innovation became the first Korean company to independently develop lithium-ion battery separators (LiBS) and the world's first developer of Infrared Rays continuous curing FCCL production technology, which enables us to produce more advanced I/E materials.

SK innovation is developing and supplying lithium-ion batteries for electric vehicles to major domestic and foreign customers. Also, SK innovation's lithium-ion battery separators are superior to our competitors' products in terms of uniformity, safety, and permeability. We are supplying FCCL with industry-leading dimensional stability and flexibility in step with the miniaturization and weight reduction trends in IT devices, such as smartphones and tablets.

Key Products



Batteries



LiBS⁽¹⁾



FCCL⁽²⁾

- (1) **LiBS**: Li-ion Battery Separator
- (2) **FCCL**: Flexible Copper Clad Laminates

Major Achievements in 2015

Battery Division: Expansion of the Seosan Plant

In 2015, SK innovation completed expansion of the Seosan battery plant, doubling its capacity, and began operating at full capacity. The Seosan battery plant is now equipped with EV battery production facilities that can produce a total of 800MWh, enough to supply 30 thousand units of EVs, twofold the original capacity.



Battery Division: Expansion of EV Battery Supplies

Although SK innovation had a late start in the battery market compared to competitors, it has made meaningful achievements by securing world-class domestic and foreign car manufacturers including Hyundai-Kia Motors, Beijing Automotive Industry Holding Co.(BAIC), and Daimler Group as customers. In 2015, the Seosan Plant operated at 100 percent capacity around the clock to respond to the rising demand for Kia Motors' electric car, Soul EV, and BAIC's EV200 and ES210. In early 2016, the company captured a stable source of demand by signing a large size contract with the Daimler Group to supply the company's EVs with batteries.

Models Powered by SK innovation Batteries



KIA SOUL EV



KIA RAY EV



BAIC EV200



BAIC ES210



LiBS Production at Jeungpyeong Plant

I/E Materials Division: 2nd Largest Producer of LiBS in the World

SK innovation successfully developed LiBS in 2004 and initiated commercial production in December 2005. In 2015, we captured the second largest global market share with annual LiBS sales reaching 150 million m². In 2016, SK innovation expects to rapidly close the gap with the largest producer, propelled by the EV battery market's explosive growth. In the EV and lithium-ion secondary battery markets, safety is gaining increasing importance on top of chemical property requirements, slimmer design, and thermal resistance. As such, SK innovation will use its specialty ceramic coated separators to accelerate into the next level and become a market leader in the wet LiBS market by 2020.

I/E Materials Division: Continued Development of FCCL Technologies

SK innovation's FCCL Business has secured its superior position in both quality and competitiveness by producing its own key raw materials and introducing a manufacturing method (the world's first to develop IR⁽³⁾ continuous curing FCCL production technology) that surpasses all competitors. Although the domestic business conditions were not favorable in 2015 due to a sluggish mobile device market, we are growing our business by advancing into new global markets and diversifying our client base. We are seeing tangible results from our activities such as production of differentiated products such as ultra-thin and thick films and new application of our products in car transmissions. We are continuously developing new products to boost our factory utilization rate.

(3) IR: Infrared Rays

Future Plans

As China is expected to become the largest EV battery market in the world, SK innovation will continue to pursue growth with a focus on China, partnering with global companies as in the case of Beijing BESK Technology, which is a joint venture with Beijing Electronics Holding Co., Ltd (BEHC) and Beijing Automotive Industry Holding Co., Ltd. (BAIC) to produce batteries in China.

The I/E Materials Division is planning facility expansion in 2016 to respond to the surge in market demand. The expansion will solidify SK innovation's place in the global market as the second largest LiBS producer and push the company towards its goal of becoming the No. 1 company by 2020.

There is continued competition among companies in the FCCL business due to recent oversupply in the market. However, the supply and demand balance is expected to improve following steady market growth. SK innovation will continue to secure new customers by using differentiated technology to develop superior products.

SK energy

SK energy continues its company-wide efforts to innovate its revenue model by cementing market leadership and focusing on operational excellence with agility and flexibility. Bolstered by our global partnerships, we will identify differentiated paths to growth and extensively refine our business model to become a leading global company in the energy sector.

Key Business Areas

Petroleum Business

SK energy lives up to its status as Korea's No.1 oil company by supplying both domestic and overseas markets with petroleum products produced at the world-class Ulsan plant, which boasts crude oil refining capacity of 840 thousand barrels per day. To proactively respond to the rising oil price and petroleum product price volatility, SK energy continually expedites and boosts flexibility throughout the value chain. It is also revamping quality assurance programs to raise customers' trust and provide differentiated customer services, including the EnClean bonus card, customer events such as 'three thousand point privilege', credit card affiliated gas station discounts and the Netruck business, which provides total solutions to freight truck drivers.

Key Products



Petroleum Products

Premium Gasoline

EnClean Solux boasts a higher Research Octane Number (RON) than regular gasoline products, which increases engine power, protects engines, and dramatically improves ride quality. Compared to the existing EnClean gasoline, the premium gasoline is a more eco-friendly fuel with additional detergent, thereby improving fuel economy and reducing exhaust gas emission.

Regular Gasoline

SK's state-of-the-art gasoline detergent is included in EnClean gasoline, markedly improving its cleaning capabilities. As a result, carbon buildup on the intake valves is minimal when using EnClean gasoline. In addition, removal of deposits inside the engine can lead to better engine output and fuel economy, less toxic exhaust fumes, improved driving dynamics, and other positive effects.

Diesel

SK energy's diesel is used for automobiles and possesses superb ignitionability essential for high-speed diesel engines, creates an appropriate amount of stray, and maintains adequate viscosity and lubricity required to prevent abrasion of the fuel injection pump. Our diesel's distillation features also allow for satisfactory combustion and high thermal efficiency.

Kerosene

SK Kerosene undergoes a highly sophisticated refining process making it suitable for supplementary indoor heaters and household boilers, and therefore does not contain foreign substances, demonstrates excellent combustion properties, and emits little toxic substance.



Gas

LPG

Since EnClean LPG goes through combustion in the form of a gas, it is highly flammable and combustible, allowing it to undergo uniform and complete combustion, and has high thermal efficiency.



Asphalt

Superphalt

Superphalt is the product name of polymer modified asphalt (PMA) developed by SK energy. It is an innovative product that lengthens the life span of roads. A net of polymer chains created between SBS and asphalt molecules absorbs stress applied on the pavement, dramatically improves viscosity and elasticity, thereby remarkably lengthening the life span of roads.

Regular Asphalt

SK energy is leading the development of high-quality functional asphalt based on its superb technology. Moreover, the company is going beyond simply selling products, to addressing any issues in the field by dispatching asphalt experts with specialized training and experience.

LPG Business

SK energy's LPG Division is building on its brand loyalty through a differentiated retail customer care program to strengthen its long-term competitiveness and secure a stable business foundation. In addition, customer relationship management (CRM) programs that target customers at fuel stations have been introduced in order to boost network competitiveness and brand value. SK energy is focusing on reinforcing marketing capabilities to ensure sustainable growth and high profitability in the future.

Specialty Petroleum Products Business

SK energy has a competitive advantage in the asphalt market based on its excellent products and services. A prime example is Polymer Modified Asphalt (SBS PMA), which SK energy became the first domestic oil refining company to independently develop, commercialize, and patent. SK energy is also strengthening its marketing capabilities in the Chinese market through joint ventures involving asphalt production, storage, and sales.

Greater Focus on the Chinese Asphalt Market

SK energy seized the opportunity to channel its research and marketing capacities into SK Asphalt (Shanghai) Co.,Ltd., maximizing synergistic effects, and also focused on capturing the Chinese asphalt market. SK (Beijing) Road Science & Tech. Co., Ltd. was scaled up and consolidated into SK Asphalt (Shanghai) Co.,Ltd.. In addition, SK energy supplied asphalt tailored to local markets from five local plants including Ningbo, Chongqing, Hefei. As a result, SK energy recorded the highest export volume to China in 2015 and sustained the largest market share in China's import asphalt market.

Reinforcing Marketing Aimed at Domestic Consumers

SK gas stations' '3,000 Point Privilege' marketing campaign, launched in 2012, aims to provide greater benefits for redeeming 3,000 unused OK Cashbag points. SK energy held two 3,000 Point Privilege events in May and August 2015, offering personal care products, including body wash and toothpaste, as well as building block kits of SK's tankers, drill ships and more. The model kits reflect the preference of 'kidults' in their 30's and 40's and families with children who frequent SK gas stations. These items were wildly popular, with 50 thousand units selling out far earlier than the events' close. In order to enhance the event's effectiveness in promoting the use of OK Cashbag points amongst key clientele and solidify its prominence as SK gas stations' signature customer service event, we will continue to raise customer satisfaction by offering a wider range of privileges redeemable with three thousand points.

Improving Asset Efficiency to Enhance Corporate Values

To sustain business operations and build a foundation for growth amid mounting uncertainties in our business environment caused by stagnant global economic growth and increasing price volatility of oil, enhancing the profit and business structure and strengthening our core competencies is essential. To that end, we actively pursued sales of idle assets in 2015, and will enhance the value chain's efficiency and continue to boost corporate values by focusing on maintaining a cash flow.

SK energy will not rest on its position as a leader in the domestic market. The company will leverage its operational capabilities, technologies, and marketing skills accumulated from supplying petroleum products, to solidify our market leadership as a 'regional top R&M company.' We will thus enhance competitiveness in our profit and business structure, and build upon our global partnering approach to identify differentiated business model to ultimately evolve into a 'global top-tier R&M company' with bright future prospects and vision.

Major Achievements in 2015



May 2015 Event



August 2015 Event

Future Plans

SK global chemical

SK global chemical has spearheaded the development of the domestic chemical industry through continuous facility investment, R&D and technological improvement. SK global chemical supplies a wide range of products ranging from raw and supplementary materials for everyday consumer goods to advanced materials for automobiles, electronics, and communications devices. SK global chemical strives to advance its functional chemical product and high value-added product businesses to maximize future revenue and endeavors to achieve sustainable growth in the global market with a focus on China.

Key Business Areas

Olefin Business



The Olefin Division produces basic oils, such as ethylene and propylene and intermediate derivatives, such as butadiene and butane-1. By doing so, the division contributes to internal and external synergies by achieving vertical and horizontal integration across the chemical industry comprising petroleum, polymers, and aromatics. Investments made in competitive production technology will lead to cost competitiveness and flexibility in terms of materials. Using this technology as a stepping stone, we will pursue further globalization. Moreover, we will continually strive for sustainable and reliable growth by providing our customers with a dependable supply of high quality products.

Aromatics Business



The Aromatics Division produces benzene, toluene, xylene, styrene monomer, and cyclo-hexane, which are used as raw materials for daily necessities and widely prevalent in the construction, electronics, and textile industries. This division has secured the highest production capacity in the region (annual BTX capacity of 3 million tons) by expanding its scale through continuous investment. The division will continue to introduce and promote trading in order to strengthen its business competitiveness and become a leader in the global market.

Performance Chemical Business



The Performance Chemicals Division produces solvents used in a wide range of products from household goods to high-tech products. Starting with the development and production of de-aromatized products whose toxic ingredients have been removed, the Performance Chemical Division has been independently developing and applying the necessary technologies for manufacturing various solvents and specialty chemical products. Furthermore, the division optimizes efforts to develop products tailored to customers' needs and improve the applicability of each of our products based on our experience in technological support, accumulated over 10 years of operating quality service centers.

Polymer Business



The Polymer Division supplies materials used not only in cars, electric appliances and communications devices, but also for most daily necessities including toothpaste tubes, stationery and storage containers. Having established itself as an LLDPE⁽¹⁾, HDPE⁽²⁾, and PP⁽³⁾ specialist, the division is actively developing new products to advance into the high value-added market and boost the competitiveness of our products. The division also strives to build and reinforce our market network to strengthen our competitiveness in the Chinese market, the largest source of market demand.

- (1) **LLDPE:** Liner Low Density Polyethylene which is used in packaging and agricultural film, wire clothing, pipe for civil engineering and construction, sheet, etc.
- (2) **HDPE:** High Density Polyethylene which is used in containers, grocery packaging film, water and sewage or chemical plants, vessels, pipe for civil engineering, etc.
- (3) **PP:** Polypropylene is a kind of plastic which is used in various types of containers, experiment tools, megaphones, automobile parts, currency, etc.

Performance Rubber Business



The Performance Rubber Division produces EPDM, a high value-added synthetic rubber with an outstanding resistance to foul weather, heat, and corrosive ozone. With the continued growth of the automotive and industrial rubber parts industries, we are focusing our efforts on producing high quality products and supplying them at competitive prices. We also seek to meet the expectations of our customers through continued quality assurance and communication.

Major Achievements in 2015

Targeting the Global High Performance Polyethylene Market

SK global chemical established a joint venture with Saudi Arabia Basic Industries Corporation (SABIC), a major global chemical company, to target the global high performance polyethylene market. The joint venture, 'SABIC SK Nexlene Company (SSNC)' held an inauguration ceremony for the Nexlene Plant in Ulsan, Ulsan attended by distinguished guests representing both companies: Chey Tae-won, CEO of SK holdings, and Prince Saud bin Abdullah bin Thenayan Al-Saud, Chairman of the Board of Directors of SABIC. Korea's Trade, Industry and Energy Minister, the Mayor of the city of Ulsan and representatives from customers and partner companies totaling around 400 people were in attendance. SK global chemical applied various technologies it had independently developed since 2004 to SSNC's Ulsan Nexlene Plant. As such, it became the first petrochemical plant in Korea to be constructed without foreign technology and boasts an annual high-performance polyethylene production capacity of 230,000 tons. SK global chemical seeks to become a global leader by utilizing SSNC and the Nexlene Plant, and intends to construct additional Nexlene Plants in Saudi Arabia and beyond.



SABIC SK Nexlene Korea Plant Inauguration Ceremony and Plant Inspection

Future Plans

SK global chemical will promote global growth strategies centered on China, which is expected to account for the lion's share of chemical product demand as the world's factory. Furthermore, we will continue to develop new technologies to satisfy the needs of our customers and the market, diversify our portfolio through strategic investments, and strengthen our competitive advantage in the global market. To that end, we are concentrating our organizational capacities on China and identifying and promoting various growth options, while also continuing to create value with our existing businesses, actively pursuing M&A projects and expanding partnerships with global petrochemical companies to secure technological competitiveness and industry excellence.

SK Lubricants

SK lubricants has led the global lubricant and premium lubricant market since it first commercialized the world’s first Group III base oil manufacturing process in 1995. SK lubricants is capturing the overseas premium base oil market by constructing new base oil factories in Europe and Asia in a proactive response to the surging demand for ecofriendly and fuel-efficient premium lubricant oil. We use a thorough localization strategy centered on local production facilities in order to expand our market share. We will continue to pioneer change in the lubricant and base oil industry and provide better value for our customers based on our agile action and investments.

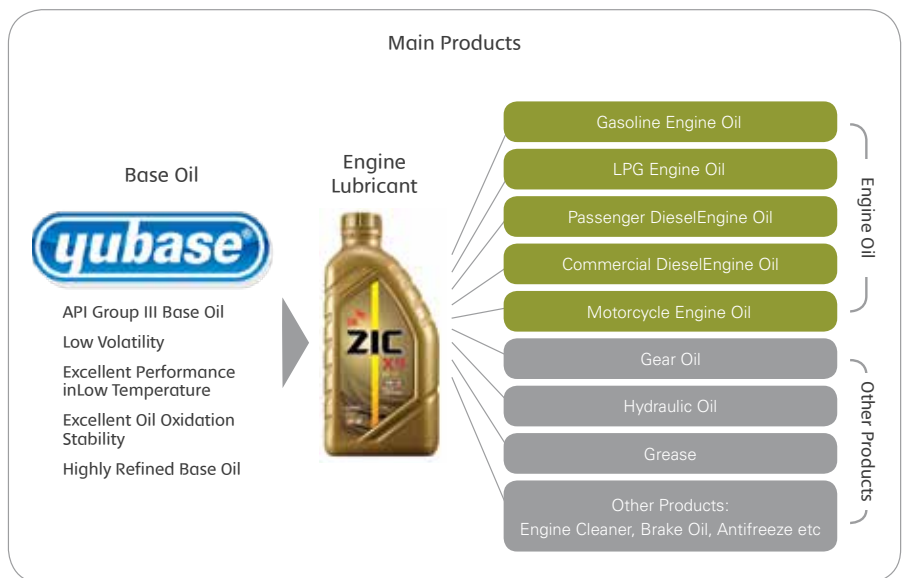
Key Business Areas

Base Oil Business

SK lubricants’ YUBASE has high viscosity index above 120, while maintaining more than 90% saturate and less than 0.03% sulfur. This specification categorizes it as Group III premium base oil. Ever since we began operation to produce our first VHVI lubricant factory in 1995, YUBASE has been continuously enhanced, and our high quality base oil now records sales in 50 countries, including the U.S., Europe, and Japan. 50 countries including the US, Europe and Japan.

Lubricant Oil Business

Produced from our high quality base oil, our lubricant SK ZIC boasts longer usage and enhanced preservation rate with excellent performance even in low temperatures. It has been a popular choice among drivers in 50 countries since it was first exported to Russia in 1995. With its excellent low temperature startability and fuel efficiency, it has gained global popularity from freezing Siberia to fuel-economy conscious areas of Southeast Asia. SK ZIC has solidified its status as the foremost lubricant brand in Korea, acknowledged as the leading brand by major institutes for 18 consecutive years since its launch.



Major Accomplishments in 2015

First Export of SK ZIC Lubricant Brand

SK lubricants accomplished the goal of becoming the first Korean lubricant producer to export their own brand of products. SK lubricants has signed a brand licensing agreement with Rabigh First Lubricant Co. Ltd., a Saudi Arabian lubricant subsidiary of Globetech, in May 2015. Following this deal, the SK ZIC brand and our unique technology has been exported to Saudi Arabia, generating annual brand royalty sales profit for the next six years until 2020.



Brand Export to Saudi Arabia

Globetech is a pipe-coating specialty corporation whose biggest shareholder is the Khonaini Group, which possesses a petroleum network in Saudi Arabia. Its subsidiary, Rabigh First Lubricant Co. Ltd., will launch its lubricant business in the Middle East and North Africa regions as well as Saudi Arabia based on our licensing agreement. We hope that this will serve as an opportunity to increase our brand recognition in those regions.

YUBASE Expands into the Spanish Premium Base Oil Market

In September 2015, SK lubricants held the completion ceremony for the ILBOC's Cartagena base oil factory, our joint venture with Spain's energy company, Repsol, with the presence of Chey Tae-won, CEO of SK holdings and President Antonio Brufau of Repsol. This factory has the capacity to produce 13,300 barrels per day of Group III base oil, a premium base oil according to API categorization. Products from this factory will be sold under SK's brand name, YUBASE. This was a strategic decision based on the strong brand recognition of YUBASE, which even exceeds that of Repsol's local brand. SK will also take the lead in marketing in Europe. SK lubricants will continue to collaborate with Repsol to strengthen its market dominance in the European market.



Factory Completion Ceremony at Cartagena, Spain

SK lubricants has grown to become the leader in the international Group III lubricant market, providing excellent quality and stable supply to its customers. We will continue to strengthen our market leadership by responding to the rising demand stemming from stronger environmental regulations and developing products with strong profit margins. We will also actively target emerging markets for groundbreaking growth in the lubricant end-product market, and strengthen our business structure via partnerships and M&As.

Future Plans

SK incheon petrochem

Spun-off from SK energy Incheon Complex in 2013, SK incheon petrochem is responsible for supplying stable energy to the Seoul Metropolitan Area and the Incheon International Airport. In 2014, SK incheon petrochem expanded production lines to produce condensate-based products, such as PX⁽¹⁾ and other high value added products, and it is utilizing its advantageous geographical location in exporting its products to China, South East Asia and beyond. SK incheon petrochem will continue to strive to become a global top-tier oil and petrochemical company by applying rigorous process management standards and environmental management standards to achieve world-class productivity.

(1) PX : Para Xylene

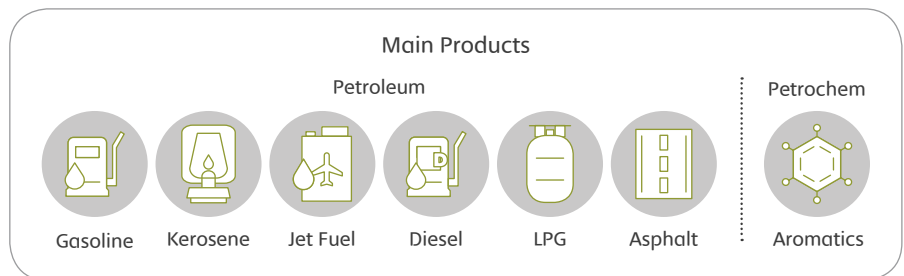
Key Business Areas

Petroleum Business

Based on our management philosophy centered on customer satisfaction and product quality, SK incheon petrochem produces high quality products that are safe for customers and the environment, while tapping into new markets. The company will keep its focus on improving its production facilities, ensuring precision in the refining process, and developing advanced technologies to upgrade the quality of all petroleum products and produce eco-friendly products.

Petrochemical Business

SK incheon petrochem has been solidifying its profit by producing and selling aromatics and solvents and high value-added chemical products, such as PX and benzene, which are produced by catalytic reforming of naphtha, derived from the refining of crude oil. We will continue to produce and supply high-quality chemical products and enhance production efficiency and technology to satisfy the demands through strict process management, thereby improving our competitiveness in the global petrochemical market.



Major Accomplishments in 2015



Incheon Complex PX Factory

Operating in the Black Post Spin-off

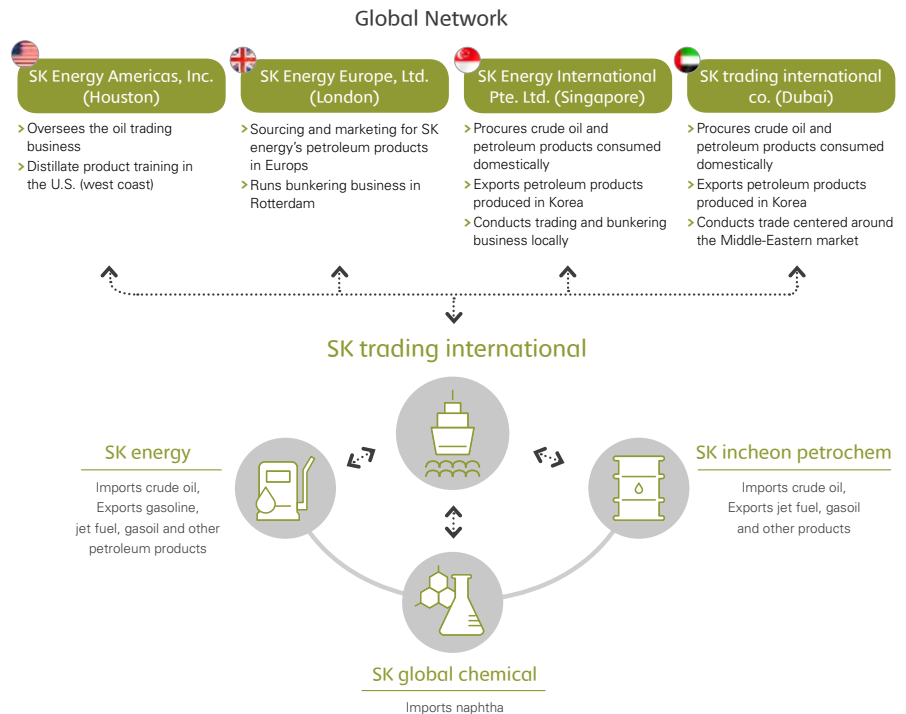
After its launch following the acquisition of SK Incheon Oil in 2006, SK incheon petrochem continuously focused on producing high value-added products and improving management. As a result, we were able to turn a profit for the first time since its spin-off from SK energy in 2013. SK Incheon Oil continuously faced challenges, such as the 2008 financial crisis, but we expanded our PX facilities from 2012 to 2014, as our long-term investment. This PX facility, which can produce up to 1.3 million tons annually, came into operation in July 2014, and has greatly contributed to achieving our 2015 operating income of 49.6 billion KRW.

SK trading international

In 2013, SK trading international was established as an independent company after its spin-off from SK energy. SK trading international trades crude oil and petroleum products for SK innovation's petroleum business-related subsidiaries, such as SK energy and SK incheon petrochem, and procures naphtha for SK global chemical. Furthermore, it is moving beyond simple trading to establishing a platform, which can directly produce, trade and market products in the global market.

Optimizing Trading Through Our Global Network

As oil prices fluctuate drastically, sales or purchase of a particular type of oil in certain time periods may impact the business's economic feasibility. SK trading international maintains three foreign branches in the Americas, Europe and Singapore alongside a foreign office in Dubai to trade optimal crude oil and petroleum products at an appropriate price by monitoring oil prices 24 hours a day, and managing the entire process including optimal oil type selection, shipping, arrival and payment of the commodity through our global network.



Business Overview & Future Plans

Based on its sophisticated risk management system, SK trading international is establishing a unique trading business model that sets us apart from our global competitors. In crude oil trading hubs, we have established an independent market network and a self-sustaining trading platform, and implemented trading optimization methods by utilizing market dynamics in various ways to become a global trading company.

SK innovation R&D

SK innovation Global Technology (SKIGT) is seeking to enhance its competitiveness by providing its customers with high quality products and services. Through open innovation in various fields and close cooperative relations with relevant internal and external partners, SK innovation is uncovering new growth engines and developing its exceptional competitive edge.

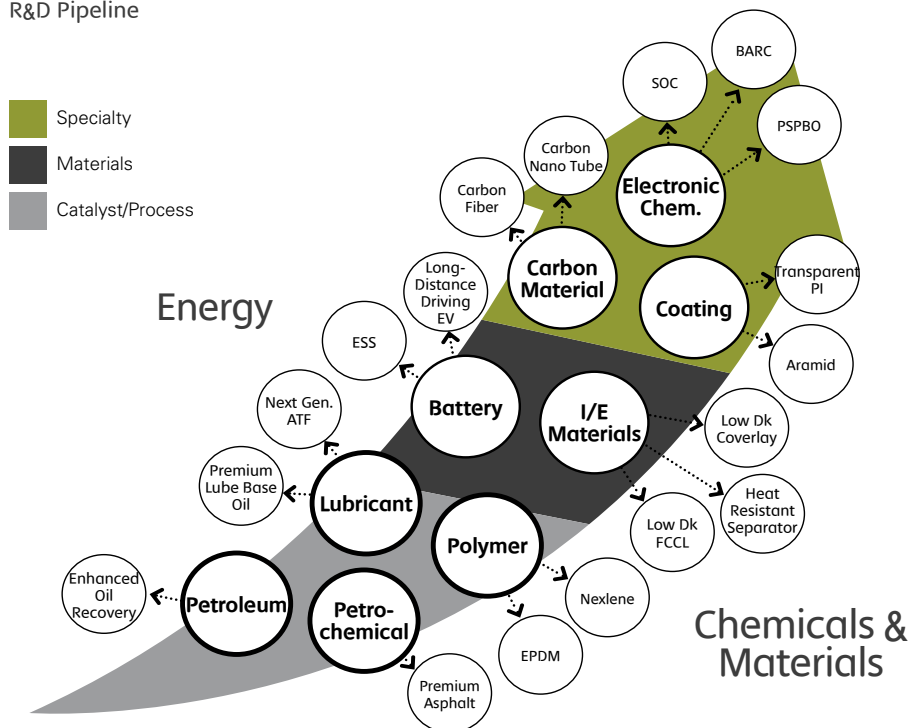
Global Technology Overview

Established in 1995, the SK Daeduk R&D Park houses Global Technology, the R&D and technological development arm for SK innovation and its subsidiaries, and the B&I R&D Center, which supports battery and I/E materials business.

SKIGT is comprised of the petroleum & lubricant R&D center, chemical R&D center, platform technology R&D center, the technology strategy office, and R&D management support office. Through technology innovation, SKIGT sharpens the competitiveness of SK innovation's existing businesses and explores future growth engines.

Furthermore, SK innovation has enhanced its business competitiveness by means of its R&D on petroleum, petrochemical products and lubricant oil, thus strengthening its global leadership by developing new business opportunities in the fields of polymer, battery, I/E materials, and other technology based development. For SK innovation's sustainable future, we will continue to reinforce our existing business through technology competitiveness, while fostering the development of new technology to create new business opportunities.

R&D Pipeline



Research Fields

	Petroleum	Oil Refinery Technology	<ul style="list-style-type: none"> > Developing corrosion protection technology to refine opportunity crude with high levels of calcium and acid > Developing technologies to improve handling capacity by removing impurities of crude oil, corrosion, fouling, catalyst response
		Petroleum Products	<ul style="list-style-type: none"> > Developing petroleum products utilizing semi-products & additive technology > Developed additive technology (WAFI⁽¹⁾) to enhance low temperature performance of diesel in winter
		New Asphalt Products	<ul style="list-style-type: none"> > Developing premium asphalt with excellent water resistance > Developing blending asphalt production technology that utilizes various feed and by-products
	Lubricants	Automobile Lubricants	<ul style="list-style-type: none"> > Supporting development and commercialization of diesel engine oil with dramatically improved oil preservation > Developing lubricants for race cars
		New YUBASE Products	<ul style="list-style-type: none"> > Developing and obtaining approval of quality certifications from manufacturers for advanced base oils with high fuel efficiency, or base oils used for shock absorber oil with low viscosity
	Petrochem	Enhancing Competitiveness of Aromatics	<ul style="list-style-type: none"> > Developing technology to produce benzene and xylene from heavy aromatics feedstock, which previously couldn't be processed, researching commercialization towards in-house application > Researching methods to reduce energy cost when producing PX
	Polymer	Nexlene	<ul style="list-style-type: none"> > Independently developed Nexlene that produces catalyst based high performance polyethylene, allowing production of low density elastomer and mid-density polyethylene in a single-site, secured product design optimization and performance > Successful establishment of Nexlene JV with SABIC
	Specialty Chemicals	Chemical Products for Electronics	<ul style="list-style-type: none"> > Developed 1 type of chemical for semi-conductors and created line for mass production > Continuing to develop chemicals for semi-conductors and display panels
	B&I	Battery	<ul style="list-style-type: none"> > World's first application and commercialization of Ni-rich cathode for high energy density batteries > R&D new material and improving in processes to reduce battery production costs
		I/E Materials	<ul style="list-style-type: none"> > Applying recycling technology for LiBS manufacturing cost optimization > Developed high flexural FCCL products

(1) WAFI: Wax Anti Settling Flow Improver; collectively refers to additives that combines wax anti-setting additive and middle distillate cold flow improver

Future Plans

For our petroleum business, we will improve our refining margin by advancing analytical technology to ascertain process yield and composition forecasting, and process and product impacts, while developing technology to process and proactively address issues in refining opportunity crude. We will maximize technical capabilities for Group III base oils to solidify our market leadership and expand our product spectrum of lubricants. With particular focus on expanding the lubricant product portfolio and core technologies such as blending, we will reinforce our global technology support system.

Our petrochem sector will focus on strengthening our core competitive edge from basic chemicals to specialty chemicals. With technological innovations to enhance quality and production price for polymers, monomers, and expand core derivatives, we will also develop and commercialize specialty chemicals used for semi-conductors and display panels to target the global market led by China.

We plan to focus on developing high performance batteries and reducing production costs in light of the mass-market availability of electric vehicles, while also accelerating the production of core components like LiBS and FCCL to meet market demand.