

# Promoting the Creation and Utilization of IP

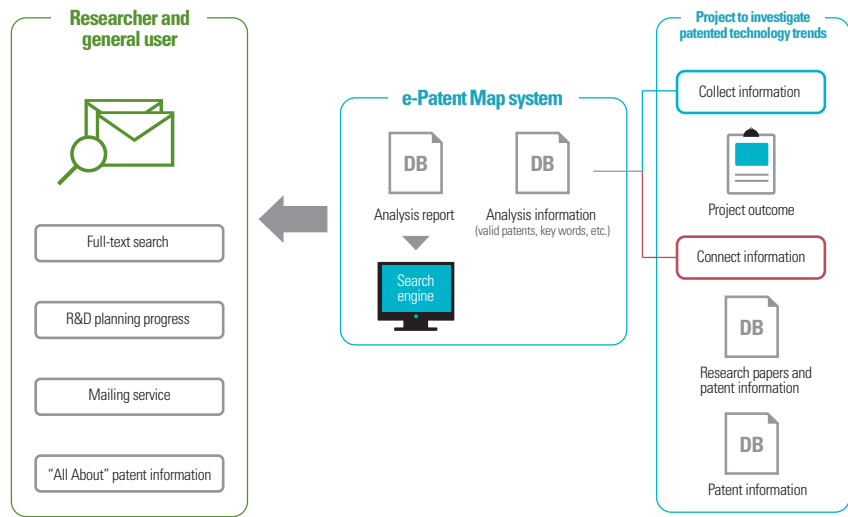


Seoul International Fireworks Festival

The annual Seoul International Fireworks Festival is an extravagant firework display by firework masters from both home and abroad. Prior to the firework show, visitors can enjoy various performances and programs.

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## Analyzing the Patent Trends of Government



We have been conducting trend analyses for patented technology by utilizing patent information gleaned from the research planning stages of government R&D projects, ensuring that these projects are efficiently carried out.

Through these analyses, we can set the direction for patent creation by ensuring that similar or duplicate patents do not already exist, and that no legal issues stand in the way of the potential patent.

We supported the analyses of patent trends and prior patents for 3,649 governmental R&D projects in 2012; 3,885 in 2013; and 3,214 in 2014.

Patent trend analyses are available on the Patent Map website ([www.patentmap.or.kr](http://www.patentmap.or.kr)). Their contents are easily accessible for general researchers, and useful for conducting R&D.

### Project for dispatching patent management expert

## Creating and Promoting the Utilization of Quality IP

In 2006, we launched a project for dispatching experts in patent management, and have since striven to create and promote high-quality IP generated by universities and public research institutes.

This project has contributed to raising IP awareness and building IP capacities through the provision of IPR consultations, the holding of seminars and briefings, and the constructing of a patent management system, thereby benefitting each and every university and public research institute. In 2014, by dispatching patent management experts, we provided 1,431 consultations, held 305 seminars and briefings, performed 665 technology transfers, and earned USD 15.5 million from those technology transfers.

### Supporting the utilization of non-used technologies

Since 2010, we have pursued projects that promote the utilization

of non-used patented technologies and preventing the disappearance of promising patented technologies.

We supported 30 universities and public research institutes, leading to deliberations on invention evaluations and foreign applications and generating a total of 3,366 invention reports. Among them, 1,166 inventions (34.6% of the total) were designated exemplary technologies (S and A class). From these, we selected 22 inventions and supported the acquisition of patent rights for them overseas.

In addition, we selected 36 outstanding patented technologies with commercialization and easy-market-entry potential from among all the promising patents on technologies, including information technology (IT) and biotechnology (BT), possessed by 30 universities and public research institutes, where exclusive departments for technology transfer and academic-industrial cooperation teams have been installed. We then presented patent strategies and supported the marketing of these technologies so that non-used excellent patents would be transferred to industries.

### Project for vitalizing the IP ecosystem

Since 2009, we have implemented a project for vitalizing the IP ecosystem in order to support cooperative networking between industries and financial institutions for more efficient technology transfers, commercialization, and IP creation; and between universities

## Regional IP Capacity Building

and public research institutes for sharing knowledge, cooperatively responding to changes in global IP business models, and disseminating achievements.

Furthermore, in 2014, we held, in collaboration with the Small and Medium Business Administration of Korea (SMBA), the Technology Transfer Roadshow in order to enhance corporate competitiveness by efficiently transferring to SMEs promising patented technologies that were previously held by universities and public research institutes. The SMBA supported the commercialization and development of products resulting from these technologies via its Convergence Technology Development Project, and we plan to support the commercialization of patented technologies by helping match them with investors. We plan to spread this model for inter-sector cooperation in order to vitalize the IP ecosystem and continue engaging in cooperative activities among various governmental agencies.

## 01 | Regional IP centers

By 2014, we were managing 30 regional IP centers nationwide as strategic hubs for the creation and utilization of regional IP. Meanwhile, we established IP Creative Zones in four regional IP centers—in the cities of Busan and Daegu, as well as the provinces

of Gwangju and Gangwon—to run programs that help turn the ideas of potential business owners into commercialized IPRs.

As such, our regional IP centers have built a comprehensive IPR support system and provide one-stop service, thereby promoting the creation and utilization of regional IPRs.

These regional IP centers are involved in diverse cooperative projects that provide IP information services and comprehensive IP consultations. The centers responded to 6,653 requests for IP information, provided 2,563 brand consultations, gave 1,833 design consultations, and held 26 invention-promoting events.

The IP Creative Zones supported patent applications for 27 ideas and trained 300 inventors on everything from idea development to patenting and commercialization.

Furthermore, we extended our IP talent-sharing project nationwide to match 86 talent donors with 111 aid recipients for a total of 139 instances of talent sharing. A breakdown of areas in which talent was shared shows that design development support accounted for the largest part with 37 cases, followed by 27 IP application consultations, 24 cases of support for preparing IP application specifications, 18 cases of brand development support, 13 prior art searches, 8 IP management consultations, and 6 dispute consultations.

## 02 | Improving Regional IP awareness

### Regional IP forums and IP policy meetings

It has become mandatory for local governments to draw up their IP plans under Framework Act on Intellectual Property (effective as of 2011). As a result, the need for a general understanding of IP is growing throughout Korea. We responded in 2014 by holding IP forums in the cities of Daejeon, Andong, and Jeonju, and in the provinces of Chungcheong and Gangwon.

In addition, 2013 saw the launch of regional IP policy meetings for discussing ways to jointly implement (together with local governments) advanced IP policies for building a virtuous cycle of IP creation, utilization, and protection. These meetings, in which we and 17 metropolitan local governments actively participate, are regularly held twice a year for the implementation of consistent IP policies between the federal and local governments. They largely contribute to spreading the IP-friendly policies of local governments.

### Customized IP training across all demographics

We run IP training projects that target, via regional IP centers, the various demographics of a particular region—including the staff of SMEs, civil servants from local governments, prospective business starters, and students—to raise awareness of the

## Enhancing the IP Capacities of SMEs and Promising Enterprises

importance of IP.

In 2014, we held 77 public official trainings (1,791 trainees) for local governments, and a total of 286 general trainings (12,154 trainees) for the public, mainly to raise awareness of IPRs and explain the basics of IP systems, patent information searches, and the e-filing of applications. We also ran a total of 226 intensive trainings (4,382 trainees) to educate people on the creation, registration, and fundamentals of IP, and to foster competent and talented IP experts.

Furthermore, customized training for military personnel, which has been held solely for the army since 2006, was expanded in 2011 to include the entire military. In addition, we held invention contests for the armed forces in 2014, receiving 847 ideas from a total of 64 military units. Among them, a total of 35 ideas received awards, which were then exhibited at the 2014 IP Expo. Furthermore, in 2014, we divided the contest for the armed forces into two categories—military-oriented and civilian-oriented—to expand the scope of idea submissions. We then supported award-winning ideas in acquiring IPRs.

### 01 | Expanding IP financial services

In 2013, together with the Korea Development Bank (KDB), we enabled SMEs to acquire loans with only their IPRs to serve as collateral.

In 2014, we expanded our IP financial



service to include Industrial the Bank of Korea (IBK), and, that same year, the two banks provided funding to 303 companies in the amount of USD 150.7 million. A total of about USD 209.1 million in funding was provided to about 1,000 companies over the past five years.

When companies ask for these loans, banks request KIPO-designated organizations to value the IPRs. The banks then provide loans based on the valuation results. This process set the foundation for IPR-based financial support-including the development of IPR valuation models, as well as regulations for practices involving the putting up of collateral for acquiring and redeeming loans.

### 02 | Fostering the Star IP Company project

We are working to nurture the potential of Korea's Star IP companies as a method for improving the creation and utilization of IPs by SMEs.

Category	Star IP companies in 2013	Star IP companies in 2014
IP application growth rate	39.8	46.3
Revenue growth rate	27.7	10.4
Employment growth rate	7.8	8.5

Achievements of star IP companies

## Fostering the Development of an IP Workforce

The Star IP Company project involves identifying regional SMEs with impressive growth potential and assisting them in transforming their ideas into patents through the use of customized patent maps, in addition to brand and design development, over the course of a three-year period. Through this project, we provide professional consultations on IP management strategies in order to foster regional business standouts.

Since 2010, we discovered and nurtured a total of 846 promising SMEs into Star IP companies: 108 in 2010, 203 in 2011, 157 in 2012, 151 in 2013, and 227 in 2014. In 2014, we provided intensive customized support to Star IP companies, helping them to record annual revenue increases of 10.4% and an employment growth rate of 8.5%.

### 01 | Increasing IPR competency in academic institutions

#### University IP courses

Since 2006, we have offered standard IP courses to implement systemic IP education in both undergraduate and graduate schools, and we developed and supplied IP textbooks customized to various levels and majors.

Stage	Year	Education module							
		Introduction to IP	Patents and creative thinking	IP creation	Patent information investigation	IP protection	IP utilization	R&D patent strategies	
COURSE	Intro-duction	1 <sup>st</sup> year		Creative thinking and basic design		Basic creative design			
	Basic	2 <sup>nd</sup> year	Introduction to IP				Introduction to IP		
		3 <sup>rd</sup> year	Students can choose from the following courses: Patent analyses and invention application, Business startup, and IP I, and IP II						
		4 <sup>th</sup> year		Comprehensive creative design		Comprehensive creative design			
In-depth	Graduate school	R&D strategies from a patent viewpoint							

Undergraduate and graduate IP education courses (science and engineering departments)

### Master of Intellectual Property (MIP) program

Since 2010, we have operated a special Master of IP course at the Korea Advanced Institute of Science and Technology (KAIST) and at Hongik University as a way of systematically nurturing Chief Intellectual Property Officers (CIPOs). The program provides an interdisciplinary approach based on IP-related subjects, such as engineering, law, and business management. Furthermore, in 2014, Korea University became involved in the management of IP courses, and we introduced a scholarship program for SMEs that lack staff members exclusively responsible for handling IP.

### 02 | Promoting academic-industrial cooperation

#### Campus Patent Strategies Universiade

Since 2008, we have held the Campus Patent Strategies Universiade to raise universities' interest in patent education, expand practical patent education at the university level, nurture engineers who possess the patent-related knowledge that companies need, and keep industry supplied with innovative ideas coming from universities.

At this Universiade, students at both the graduate and undergraduate level, with help from their academic advisors, draw up future strategies and offer solutions to questions prepared by private companies. The private companies then screen the

answers and award monetary prizes to their top choices. The Universiade represents a new type of cooperation between government, industry, and universities. Students can quickly grasp the corporate R&D process as a result of the IP-related knowledge they have gained, while participating companies are provided with new creative ideas. In 2014, we had the participation of 45 companies and 3,757 teams from 109 universities.

### Collegiate invention activities and academic-industrial cooperation

As yet another way to boost inventions by universities and students, as well as to turn their inventions into IPRs, commercialize their inventions, and foster creative inventors well-versed in IP, we have been holding university invention contests ever since 2012. For each contest, we operate IP summer camps, and IP experts train and actively support students in conducting prior art searches and preparing patent applications. Furthermore, when it comes to especially innovative ideas and IPRs, we take care of the patent application fee, testing of product prototypes, commercialization, etc.

During the 2014 contest, a total of 3,961 ideas were submitted from 124 universities, posting a 15.1% year-on-year growth rate in the number of requests made.

### Design to Business (D2B) Fair

Design to Business Fairs have been held since 2006 as part of a concerted effort to raise awareness of design rights and thus reinforce national industrial competitiveness. D2B Fairs are distinctive in that companies gain creative designs through the open innovation of talented designers, while designers retain the IPRs to their innovative designs.

At the fair, companies propose designs for goods in need of a makeover, and designers submit their designs to companies. When companies commercialize an award-winning design, both the award-winners and the companies sign a licensing contract. The award-winners receive royalties in relation to the product's generated revenue. In 2014, 23 companies presented goods for the contest, and 4,806 designs from 80 universities were submitted to the D2B Fair, resulting in 146 design applications.



## 03 | Fostering creative inventors

### Management of invention classes

We made improvements to and established the base for invention education by supporting invention classes and special class activities.

Furthermore, we designated four universities for teacher education, and are managing education centers there to train and nurture professional invention teachers, both prospective and current.

In 2014, we operated creative invention education centers for primary, middle, and high school students in a total of 196 schools in 17 cities and provinces nationwide in order to develop and provide invention education programs targeted not only to students, but also their parents and the general public, thus contributing to raised IP awareness and invention education throughout those regions. We plan on continuing to finance such programs in hopes of cultivating awareness of and interest in IP among students and their parents.

### Invention promotional programs for youth

We manage various invention and creativity contests for discovering creative, talented inventors, and we select and support excellent students and teachers who are engaged in invention activities.



The Korea Student Invention Exhibition has been held since 1988 to discover and nurture promising inventors to lead the knowledge-based society of the future by encouraging them develop their creativity, practice inventing, and design and produce innovative inventions.

Since 2002, the Korean Student Creativity Championship was jointly held by KIPO and Samsung Electronics, with the aim of nurturing creativity and outside-the-box thinking among today's youth by having them collaborate to solve problems. This championship is distinctive in that students form teams, and their creativity is evaluated as they resolve various tasks given to them both in advance and during the event.

The Youth Inventors Program is a program that nurtures creativity, collaboration, and entrepreneurship among today's youth by having middle and high school students present creative solutions to dilemmas proposed by companies, which then help support their patent

applications.

In addition, we award scholarships to promising student inventors. In 2011, we established and have since managed a new grand prize for outstanding invention instructors in order to recognize those who contribute to the creation of an invention-oriented culture and the spread of invention education.

### Education for the next generation of entrepreneurs

We have run educational programs at KAIST and the Pohang University of Science and Technology (POSTECH) aimed at middle and high school students with the potential to become creative IP-based entrepreneurs.

We have offered various educational programs to reflect core entrepreneurial skills, including creative problem solving and future technology forecasting, while simultaneously fostering IP expertise. In addition, as part of an effort to enhance the business startup capacity of students who completed the next-generation talented entrepreneur course, we run a step-by-step business startup program that covers everything from conceiving new inventions to the early stages of a business startup.



## 04 | Events to promote inventions

Korea's Invention Day is a national day commemorating the invention of the world's first rain gauge (측우기, chuekugi), which took place on May 19, 1442. Every Invention Day, we hold the "Invention Day Commemoration Ceremony" to raise awareness of the importance of inventions and to encourage people to invent.

The 49<sup>th</sup> Invention Day took place in 2014, with a roster of special guests, including the Deputy Prime Minister and Minister of Strategy and Finance—demonstrating the government's willingness to support IP. Awards were handed out to 79 individuals for their inventive contributions to industrial development.

The top inventor was granted the title of "Inventor of the Year" in recognition for his or her role in enhancing Korea's competitiveness through innovative new products and technologies. Examples of the winner's inventions, as well as his or her photo, are exhibited for public viewing at the Korean Inventors Hall of Fame in recognition of the contributions of inventors.

Furthermore, on November 28, 2014, we held the 2014 IP Expo in Seoul for international networking purposes; that is, promoting communication between Korean and foreign inventors and opening up new global sales routes for the outstanding inventions presented



therein. The fair included 723 excellent inventions from 33 countries, including the United States, Germany, the United Kingdom, and Russia.

Together with WIPO and the Korea Women Inventors Association, we also hold the annual Korea Women's Invention Fair and the Korea International Women's Invention Exposition to stimulate and commercialize inventions by women. In 2014, the events were held in Seoul, attracting around 44,000 visitors.