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Promoting the Creation and Utilization of IP

In an effort to promote IPRs with the potential to dominate future markets, we continuously strive to increase the capacity of researchers and businesses to create and use IP more effectively. We support governmental research and development (R&D) projects by providing patent analyses and rendering assistance for IP creation in SMEs at our 31 regional IP centers nationwide. We also work to implement policies that will help to develop future IP leaders.

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Linking R&D with IPRs

Analyzing patent trends of government R&D projects

We have been analyzing patent technology trends for governmental R&D projects in order to prevent duplicate investment and ensure the efficiency of said projects.

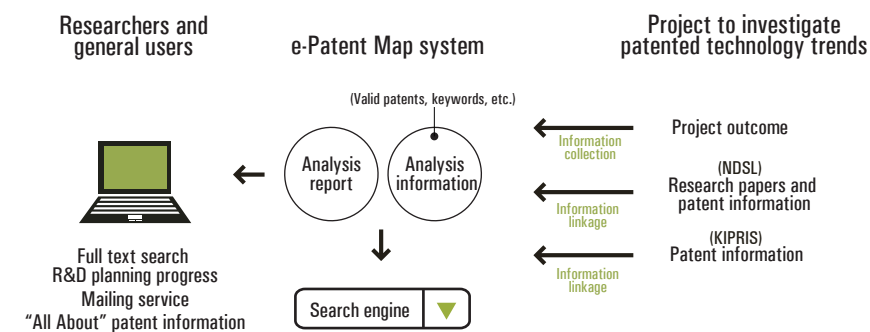
Our goal in analyzing patent technology trends is to help create strong and useful patents that will prove successful in future markets. Regarding large, mid- to long-term R&D projects for government agencies—such as the Ministry of Trade, Industry and Energy and the Ministry of Science, ICT and Future Planning—we undergo patent analyses of said projects at the research planning or project selection stages.

Under current regulations for managing state R&D projects, patent trends must be analyzed at the research planning stage, while prior patents and notified technologies must be analyzed at the project selection stage. Results of the

patent trend analysis are reflected in the project evaluation stage.

Since 2005, we have consistently carried out this project after running a number of pilot projects. In 2011, we supported the analysis of patent trends and prior patents in 4,424 governmental R&D projects; in 2012, the number was 3,649; and, in 2013, the number has again risen to 3,885.

Reports of patent trend analysis are available on the Patent Map website (www.patentmap.or.kr). Contents are easily accessible and useful for R&D.



Creating and Promoting the Utilization of Quality IP

In terms of sheer quantity, the rate of patent registration by Korean universities and public research institutes has come to match that of other major countries. However, there is still plenty of room for qualitative improvement in terms of patent usage rates, technologically-derived income, and R&D productivity.

As a way of supporting the discovery and commercialization of quality patents, we dispatch teams of patent management experts to consult with various universities and public research institutes. We also continuously strive to augment projects that support the building of IP ecosystems.

First, we support the development of a human resource pool of IP specialists. We dispatch various experts in IP management, including patent examiners, to apply their vast experience toward helping universities and public research institutes improve their capabilities for the creation, utilization, and protection of IP, while also generally improving IP infrastructures. Since 2006, we have annually dispatched experts for three-year secondments to about 20 institutions. By the end of 2013, we had dispatched experts to a total of 54 institutions.

Second, we support the commercialization of technology transfers to promote IPR usage among universities and public research institutes, as well as to prevent overproduction of non-used patents. To this end, we aided in discovering quality

patents while also holding invention-related interviews at 27 institutions. We also linked 26 institutions with industrial partners to help revitalize non-used patents, resulting in the signing of 30 contracts pertaining to technology transfer.

One example on this was the Korean National Cancer Center, which possessed a promising patent for a DNA treatment for liver cancer. Through the support of our patent management experts and invention-related interviews, they succeeded in transferring the technology to a pharmaceutical company and getting it commercialized.

Third, we are carrying out a project to support the building of a cooperative ecosystem linking industrial and financial institutions to outstanding patented technologies acquired by universities and public research institutes. The R&D-IP Consultative Group, which is composed of 95 universities and public research institutes, was launched to support the building of patent portfolios and patent transfers. In the financial world, we saw the formation of an IP Investment Consultative Group for investors, which holds consultations and briefings to help design investment strategies. Within the IP industry, a Technological Needs Matching Consultative Group was formed for demand-driven technology transfers and commercialization. They successfully met the technological demands of various companies thanks to the transfer of patented technologies

possessed by universities and public research institutes.

In October of last year, we held a forum to spread awareness of IP achievements and the visionary “Government 3.0” program, thereby promoting and publicizing the success of IP projects in Korea.

Additionally, in November, we jointly held the 2013 Technology Transfer Roadshow in association with the Small and Medium Business Administration, which is an agency of the Korean government, to enhance collaboration between the various ministries, and to promote technology transfers for the commercialization of promising patents. In the process, we prepared a forum on open technological innovation to encourage universities and public research institutes to transfer their patented technologies to SMEs in hopes of getting them commercialized.



Regional IP Capacity Building

01

Regional IP centers

As of 2013, we have been managing, in concert with local governments, 31 regional IP centers nationwide as strategic hubs for the development of regional IPs. The centers habitually execute various joint projects—such as the provision of IP information services, comprehensive IPR consultation, IPR field training, and the sharing of IP expertise—in collaboration with regional organizations.

In 2013, the centers responded to 6,990 requests for patent information, provided 3,428 brand consultations, and gave 2,558 design consultations. They also held 20 promotional events for increasing the number of regional inventions.

We outreached to SMEs to provide 286 training courses (for a total of 4,676 trainees) customized to their needs. We also expanded the IP expertise sharing project nationwide, with 80 experts participating in 118 events.

Our IP centers have installed a thorough IPR support infrastructure for providing one-stop services and promoting the creation and utilization of regional IPRs, thereby contributing to regional economic vitalization. In the future, the centers plan to cater support to specific regions by closely cooperating with local governments.

Enhancing IP Capacity of SMEs

02

Regional IPR awareness

Regional IP forums and the IP Policy Meeting

It has become mandatory for cities and provinces to draw up their IP plans under the Framework Act on IP enacted in 2011. As a result, the need for a general understanding of IP is growing throughout Korea, and KIPO responded by holding national IP forums in Chuncheon, Busan, Cheongju, and Gwangju after starting out at Incheon in June 2013. These forums naturally progressed out of the successful tour we did of 8 metropolitan cities in 2012. The forums, which focused on topics like “the importance of the creative economy and IP,” provided a great opportunity to share each provincial government’s management philosophy with regional leaders.

Additionally, 2013 saw the launch of Regional IP Policy Meetings for discussing ways of implementing consistent IP policies for a virtuous cycle of IP creation, utilization, and protection, which, together with local governments, is the key factor in developing a creative economy ecosystem.

The meetings were held twice last year (April 11th and December 20th) with the participation of KIPO and 17 metropolitan cities. These events

contributed greatly toward extending current IP policies to local governments, as well as consolidating a framework for establishing IP policies that remain consistent between federal and local governments.



01

Expanding IP financial services

Together with Korea Development Bank (March 2013) and the Korea Credit Guarantee Fund (August 2013), we enabled SMEs to acquire loans with only their IPRs to serve as collateral. When companies ask for these kinds of 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 loans and the redemption of said loans.



02

Fostering "star" IP companies

KIPO is working to nurture the potential of Korea’s “star IP companies” as a method for improving the creation and utilization of IPs by regional SMEs. The Star 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, simulations, and the developing of brands and designs throughout the course of a three-year period. These strategies allow IP management consultants to successfully promote regional business standouts.

Since 2010, a total of 619 SMEs (151 in 2013) have received support through their star IP status. The companies selected in 2013 posted a revenue increase of 21.4% and an employment growth rate of 24.8% year-on-year.

Fostering the Development of an IP Workforce

< Achievements of star IP companies >

(Unit: %)

Category	Star IP companies in 2012 (157)	Star IP companies in 2013 (151)
IP application growth rate	12.6	39.8
Revenue growth rate	10.2	21.4
Employment growth rate	4.5	24.8
Increase in rate of companies with exclusive IP personnel	2.1	2.8
Increase in rate of companies compensating employee inventions	36.7	7.7



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Increasing IPR competency in academic institutions

University IP courses

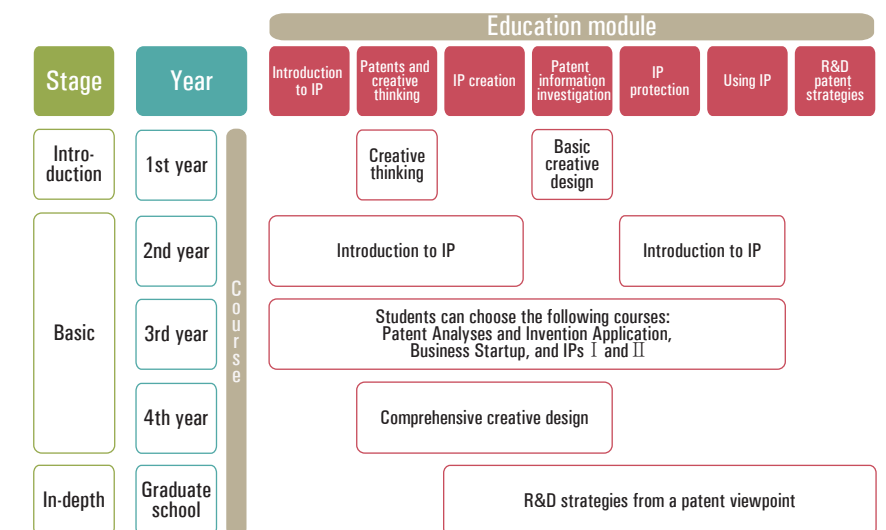
Since 2006, we have supported the management of IP courses, both graduate and undergraduate, in training competent and talented IP workers. Additionally, by selecting and supporting leading universities in the field of IP, we have applied the foundation for these universities to provide independent IP education. We also continue to operate our own courses for nurturing IP professors.

In particular, by applying standard IP education to college curriculums, we have been able to provide students with systemic IP tutelage beginning in their freshman year and continuing all the way through graduate school.

< Support for IP education at universities >

Category	2011		2012		2013	
	No. of universities	No. of participants	No. of universities	No. of participants	No. of universities	No. of participants
IP education courses	60	9,762	57	8,345	57	8,067
Educating IP professors	66	228	71	285	64	268
Leading universities for IP education	-		3 universities		6 universities	

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



Special IP degree programs

Since 2010, we have operated a special Master of IP graduate course at KAIST and Hongik University as a way of systematically fostering IP experts. The program provides an interdisciplinary approach based on IP-related subjects like engineering, law, and business management. Furthermore, we have introduced a scholarship program for SMEs, which generally lack staff members exclusively responsible for the handling of IP.

02

Promoting academic-industrial cooperation

Campus Patent Strategy Universiade

Since 2008, we have held, in collaboration with the National Academy of Engineering of Korea, an annual Campus Patent Strategies Universiade. At this KIPO-run contest, students at both the graduate and undergraduate level, with the help of their academic advisors, offer solutions to questions prepared by private companies. The private companies then screen the answers and award monetary prizes to their top choices. This event provides companies with ideas that

are both practical and creative, and allows students to grasp the real-world applications of the theories they have been studying. The Universiade has drawn much attention, as it represents a new type of cooperation between government, industry, and universities. It has also seen a huge jump in the number of participants: from 21 companies and 68 universities in 2008, to 41 companies and 106 universities in 2013.

Promoting collegiate invention activities and academic-industrial cooperation

As yet another way to boost inventions by universities and graduate students, we go out of our way in supporting university invention clubs and sponsoring a university invention contest. The contest is composed of two sections: (1) an invention contest where students undertake tasks pertaining to technologies currently in-demand by companies and (2) an invention research section where ideas are transformed into inventions. In 2013, 3,442 works were submitted to the contest from a total of 94 universities. We also provided 3D printers to 25 invention clubs nationwide in support of collegiate invention activities.



Design to Business (D2B) Fair

Since 2006, we have held a series of design fairs as part of a concerted effort to introduce innovative new designs and allow the talents of innovative IP designers to flourish. In 2013, 3,278 designs were submitted from 95 universities, resulting in a whopping 171 IPR applications and 8 licensing contracts. The Grand Prize was ultimately awarded to a new type



Grand Prize: bathroom slippers that drain water easily



Gold Prize: cupid spoon and fork set

of drainable bathroom slipper that is expected to launch in March 2014. The design that was awarded the Gold Prize has also been commercialized and is now on sale.

03

Fostering creative inventors

Systemizing invention education

Throughout the past year, we promoted invention education in numerous ways. We made qualitative and quantitative improvements to invention education in primary, middle, and high school classes and supported special class activities related to inventions. We also supported teacher workshops, research contests, and job training for an increase in overall expertise related to invention. Furthermore, we ran creative invention classes in a total of 194 schools in 17 locations nationwide. We plan on continuing to finance such programs in hopes of cultivating IP awareness and interest among students and their parents.



Student invention contests

At the 26th Korea Student Invention Exhibition in 2013, 9,538 inventions were submitted under the themes "Inventions to Benefit the Disabled, the Elderly and the Young" and "Inventions that can Conserve Energy." Three-hundred inventions received awards after undergoing rigorous screening in 4 separate stages: document screening → prior art search → product evaluation → comprehensive evaluation. For the Korean Student Creativity Championship, teams of 5 to 7 students used science, technology and artistic expression (including improvisational acting) to solve assigned tasks. A total of 1,256 teams took part, with 100 receiving awards for their efforts. In the Young Inventors Program, students presented invention ideas that they felt would be of commercial interest. In turn, the companies provided them with complementary IPR education on technology and commercialization. Nine companies and 2,200 teams took part in the program, and 80 of those teams eventually went on to become award recipients.



Invention scholarships and instructor prizes

In an effort to support student inventors and encourage invention creation, we awarded scholarships and gave 102 promising student inventors the opportunity to visit foreign IP offices. We also founded creative invention camps for students. Finally, we established a new grand prize for outstanding instructors in the invention field and awarded it to 7 teachers.

Promoting Inventions

Fostering the next generation of entrepreneurs

We have run educational programs at KAIST and Pohang University of Science and Technology (POSTECH), the top-ranked science and engineering universities in Korea, to develop entrepreneurial talent. We have offered various educational programs to reflect core entrepreneurial skills, including creative problem solving and future technology forecasting, while simultaneously expanding expertise in IP.

In addition, we ran a session for the next generation of talented entrepreneurs at the Future Creative Entrepreneurs and Global Leaders Forum to give attendees a better understanding of youth business startups and boost their motivation for becoming entrepreneurs.

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Events to promote inventions

Korea's Invention Day, enacted in 1957, commemorates the invention of the world's first rain gauge, which took place May 19, 1441, during the reign of King Sejong. To commemorate the day and raise awareness on the importance of inventions, we hold a ceremony to award those whose inventive efforts have contributed to the industrial

development of Korea. The 48th Invention Day took place in 2013, with a roster of special guests—including Korean President Park Geun-hye and the Minister of Trade, Industry and Energy; as well as the heads of major invention-related organizations—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 Invention King of the Year in recognition of his role in enhancing Korea's competitiveness through innovative new products and technologies. The winner also received a laurel wreath, which will be exhibited along with examples of his inventions in the Korean Inventors Hall of Fame. This will serve to commemorate the event and allow for public viewing of the inventions.



Furthermore, on November 29, 2013, we held the Korea Invention Patent Exhibition, the Trademark and Design Contest, and the Seoul International Invention Fair as part of the 2013 Korea IP Fair. The exhibitions, held for international networking purposes, promote dialog between Korean and foreign inventors and open new global sales routes for outstanding inventions presented therein—including 702 excellent inventions from 31 countries worldwide, including the United States, Germany, the United Kingdom, and Russia.



Every year, we hold the Korea Women's Invention Fair and the Korea International Women's Invention Exposition with the support of the World Intellectual Property Organization (WIPO) and the Korea Women Inventors Association. These events specifically promote and further stimulate scientific innovation by women. The Korea Women's Invention Fair was held at the COEX Convention & Exhibition Center in Seoul from May 1 to 4, 2013, attracting around 70,000 visitors. At the Korea International Women's Invention Exposition, 152 Korean inventions and 138 foreign inventions were displayed in honor of the accomplishments and contributions of female inventors.

The Korea International Women's Invention Exposition was held under the banner of "Creative Economy, IP, and Women's Inventions." Participants included female inventors and entrepreneurs, expert academics (both international and domestic), and governmental representatives from countries all around the world, including such places as Moldova, Georgia, and Kenya. Participants engaged in rigorous debate for drawing up IP strategies, improving the competitiveness of women inventors and entrepreneurs, and expounding on the state of national IP policies within the fluctuating global economy.



02

Employee Invention Forum

In November 2013, we held the Employee Invention Forum as a method for determining the best course of action in developing an economic strategy that provides due compensation for employee inventions and promotes first-rate business practices. At the forum, 10 companies were selected to receive awards for managing the top compensation systems for employee inventions. The forum dealt with major issues related to employee inventions, such as amendments to the Invention Promotion Act and certification of companies with excellent compensation

for employee inventions.

We presented Excellent Awards to the 10 companies with the best compensation schemes for employee inventions; these included Samsung Electronics (Grand Excellence Award), KC Tech (Excellence Award), SFA (Excellence Award), and Woojin Electro-Nite (Excellence Award). In addition, prevailing employee invention-related issues, such as various non-monetary compensation schemes (i.e. promotion, training, plaques, and employee leave), as well as university professor employee inventions, were discussed.

Furthermore, the main content of the amended Invention Promotion Act, which limits the non-exclusive licensing of large companies that have not implemented regulations for compensating employee inventions, was introduced to establish measures for the development of an economic strategy that would be of greatest benefit to both employers and employees.

