Japan's interventions in SCP 32 (7-10 December, 2020)

9. Transfer of technology

Japan would like to express its appreciation to the Secretariat for its great efforts in preparing the documents SCP/29/6, SCP/30/8, SCP/31/7 and SCP/32/6. Japan believes that these documents are very informative and useful for understanding the provisions and best practices of patent laws in each country that contribute to effective transfer of technology, and for each member state to consider their policies on technology transfer.

<Japan's presentation at the Sharing session by Member States on patent law provisions and practices that contributed to effective transfer of technology, including sufficiency of disclosure. >

I would like to thank you for giving me this opportunity to discuss JPO's initiatives for Technology Transfer.

In this presentation, I will explain the international and domestic initiatives we have been taking at JPO. The international initiatives, in other words, are about the transfer of technology that crosses the boundary between countries, and the domestic initiatives are about the transfer from academia to industry.

Because of time constraint, I will explain the overview only. Please also refer to SCP/32/6 for supplemental information.

First, I will start with our international initiatives.

WIPO GREEN is a platform that promotes the transfer of technology and has been developed based on a concept proposed by the Japan Intellectual Property Association (JIPA).
For quite some time, Japan has been consistently contributing to developing this framework. At present, more than 1,500 users from all over the world have registered more than 3,800 technologies in its database. Many Japanese companies have already used WIPO GREEN, and Japan is ranked No. 2 in terms of the numbers of users and registered technologies.

The JPO became a WIPO GREEN partner in February 2020 as the first IP office partner in the Asia-Pacific region. The number of partners from Japan is now 23, which is the largest in the world.
The JPO has launched a web page introducing the WIPO GREEN. On this page, articles are posted introducing many WIPO GREEN activities undertaken by partners from Japan. The JPO is constantly updating these articles.
In November of this year, Tokai National Higher Education and Research System which includes Nagoya University and Gifu University became the first Japanese national university to announce their participation as WIPO GREEN partners.
Additionally, the JPO, with the support of the "Funds-in-Trust Japan Industrial Property Global", is carrying out various support activities for WIPO GREEN, such as promotional activities that encourage Japanese companies to make greater use of WIPO GREEN.
Going forward, the JPO, in cooperation with the WIPO Headquarters and its Japan Office, is committed to actively supporting the activities of WIPO GREEN, and to promoting the wider use of environmentally sound technologies worldwide.

The transfer of technology from developed countries to developing countries can be indirectly progressed by developing and improving the IP system in developing countries. The JPO has been contributing to advancing the transfer of technology through conducting the following cooperative activities that further improve IP systems worldwide:

The JPO has voluntarily contributed approximately CHF 85 million in total to FIT Japan IP Global, including predecessor WIPO Funds-in-Trust / Japan, for 33 years and has supported WIPO‘s initiatives to develop intellectual property systems. In 2020, JPO’s contribution amounted to CHF 5.78 million, and has promoted initiatives that enhance technical and knowledge infrastructures, including training courses, dispatch of experts, and computerization support and workshops. The JPO has sent 407 experts to 38 developing countries and has invited 1,862 people from 65 countries to Japan over the last 23 years from 1996 to 2019.

Moreover, the JPO provides invitational training courses as our independent cooperation other than the FIT Japan IP Global. We, for example, held a Training Course on Academia-Industry Collaboration and Technology Transfer in August 2019 and invited 24 individuals involved in IP management in universities and research institutes from 11 countries. In 2020, the JPO conducted this course online due to COVID-19 and gathered 22 participants from 13 countries.

Next I would like to explain our domestic initiatives.

In Japan, universities and academic research institutes have been major research sources. However, although they achieved many outstanding research results that showed great potential as “seeds” of new industries, these outcomes were not fully used in industries. In the past, universities did not have departments specialized in IP issues. Under these circumstances, there has been a growing need for Technology Licensing Organizations (TLOs). As a result, the “Act on the Promotion of Technology Transfer from Universities to Private Business Operators” was enacted in May 1998 in order to support establishing TLOs at universities.

In addition, in the past, IP rights arising from research and development (R&D) activities supported by national government funding were owned by the national government. Nonetheless, after having discussions based on suggestions proposed by the private sector and the state in the U.S. on this matter, the Japanese government determined in 1999 that “in order to increase the incentives of inventors involved in R&D activities and promote the wider use of the research results arising from the government funding, the Japanese government would conduct an initiative to allow the individuals to retain IP rights for inventions arising from government-funded R&D activities.” Based on this, the Japanese government established the Japanese version of the Bayh-Dole Act in the same year.

A good example of a technology created at a university that later evolved into a business is the development of blue light-emitting diodes (LEDs).

In 1986, Mr. AKASAKI Isamu, a Japanese professor at Nagoya University

at that time, and his assistants succeeded in finding techniques for synthesizing high-quality single crystal gallium nitride (GaN).
In 1987, "Manufacturing blue light-emitting diodes of GaN" project began as a commissioned R&D project of the Research Development Corporation of Japan (JRDC). In this project, Mr. AKASAKI and Toyoda Gosei Co., Ltd. conducted research and development, and realized the world's first blue LED using GaN. In 1995, a blue LED was commercialized by Toyoda Gosei Co., Ltd.

The study report issued by the JST reported the following:

From 1987 to 1990, the JST committed 550 million yen (about 4.86 million CHF) to conducting development of blue LED manufacturing technology.

From 1995, commercial production of blue LEDs began. The total sales of application products using blue LEDs from 1997 to the end of 2005 reached around 3.6 trillion yen (31.8 billion CHF). The blue LED products created new revenue valued at nearly 350 billion yen (3.10 billion CHF) in Japanese industries and around 32 thousand new jobs. Further, this brought in an approximate additional income of 4.6 billion yen (40.7 million CHF) for JST licensing fees between 1995 and 2005.

Lastly, I would like to introduce Initiatives to support university-industry collaboration including technology transfer.

Since 2016, the JPO and the National Center for Industrial Property Information and Training (INPIT) have been conducting “Dispatching Services of Intellectual Property Advisor for University-Industry Collaboration.” We are dispatching advisors well-versed in IP to universities with technology seeds to be licensed to companies and to commercialize.
The advisors provide the support activities related to university-industry collaboration including the following items for technology transfer, with the agreement of the university officials in charge of university-industry collaborations.

✓ Discovering and evaluating technology seeds and launching of

university-industry collaboration projects.

- ✓ Searching for partner company candidates.
- ✓ Formulating intellectual property strategies bearing business models in mind.

We believe that the SCP is a suitable forum to share our views and experiences and learn from each other on initiatives for developing a better patent system. We look forward to further discussions at this forum.

Thank you very much for your kind attention.