

Intellectual Property Revolution:  
Japan's Experience in Formulating a National IP Strategy  
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Introduction

Recently, it seems that not a day passes without an article about intellectual property (IP) appearing in the press somewhere in the world. This growing media coverage reflects a major shift in the driving force of international trade – from tangible property in the form of goods and products to intangible IP in the form of innovative and creative works. Nowadays, the competitiveness of a State depends to a large extent on how well it manages these intangible assets. Small differences in IP strategy sometimes makes a big difference in the competitiveness of a State.

A brief overview of how Japan began to revitalize its economy through innovation and creativity and the strategic use of the IP system to protect them is a telling illustration that may be of interest to policy-makers and stakeholders in other countries wishing to do the same.

IP Evolution in Japan in the Last Decade

When I took office as Commissioner of the Japan Patent Office, in 1996, the national IP system was rigid and out-dated and IP law and policies needed to be reviewed in the light of a new role for IP in Japan's new innovation policies. The basic structure of the then patent law, for example, inherited the basic perceptions of legislators who had enacted it about 50 years previously when Japan enjoyed rapid economic growth mainly from advantageous labor costs and efficient manufacturing processes. I thought something should be done without delay to rectify this situation, especially as Japan was struggling to recover from a long economic slump – the so-called “lost decade” of the 1990s.

First, the patent system had to become more user-friendly and accessible, particularly to researchers and managers of small and medium sized enterprises (SMEs). Interviews with employees at a number of research institutes and factories indicated that processing of applications by the Japan Patent Office was too slow and onerous.

Government officials tend to consider that the role of government is to exercise its authority to grant the right of IP to an inventor. I did not think that it properly reflected the mission of the Patent Office. A Government should be more humble in order to “serve” inventors who use the IP system. In other words, government procedures should be more friendly to users. This required a change in the mindset of the Government's policy makers and officials of the Patent Office. My top priority was, therefore, to accelerate the examination procedure to meet users' needs, which were growing rapidly, in part due to increasingly fast-moving and dynamic technological changes.

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<sup>1</sup> This article is excerpted from Mr. Arai's most recent book “Intellectual Property Revolution” (Kadokawa Publishing Corporation, Tokyo: September 2006 (in Japanese))The text in English was prepared by WIPO Secretariat in consultation with the author.

An additional priority was to work for an increase in the amount of damages awarded to patent owners in cases of infringement, as these were too small to discourage such illegal activities. Some thought it worth taking the risk to infringe someone else's patent because the amount of damages to be paid would be modest. The smaller the amount of damages, the better; this argument was sometimes supported by narrow-minded managers whose perception was still based on an old climate prevailing in the 1950's that Japanese companies were essentially users of imported technologies. I would think that if Japan was to become "a state based on IP," severer penalties had to be imposed on parties willfully infringing IP rights. I felt strongly that Japanese citizens should be encouraged to create new technologies, rather than imitating or adapting existing ones and infringing the IP rights of others. With this in mind, I proposed a major amendment to the patent law that included changes in the criteria for assessing damages for IP infringement.

### IP Cases in 2001

In 2001, I left government service; but in that same year, two IP cases made me take action which triggered Government debate and eventually led to the launching of Japan's national IP strategy.

The first case concerned a Japanese researcher at a US university medical center who was accused of illegally taking away genetic material for research on Alzheimer's disease from the center. His contract stated that any research results belonged to the center, but the researcher had not fully understand the scope of this provision. This confirmed my concern about the lack of awareness about IP shown by Japanese researchers and companies, particularly those undertaking joint research projects. Biotechnology is one of the high technologies in a knowledge-based economy and requires a large amount of investment and time to compete in the global market. This case is a symbolic one which demonstrated the importance of IP and enhanced public awareness about the role of IP.

The second case was a patent lawsuit filed in August 2001 by an inventor, Dr. Nakamura, against his former employer (Nichia, a chemical company) over his claim for "appropriate" remuneration for his contribution to an invention of a blue light-emitting diode (LED), that had excellent potential for market growth. The Tokyo District Court ruled that the company should pay Dr. Nakamura some 180 million US dollars (the sum he had asked for), even though he could have requested half the estimated company profits on the invention (1,200 million dollars). The amount of the remuneration quoted in the first decision caught the world by surprise.

Industry was extremely critical of the decision, and particularly the way in which Dr. Nakamura's estimated contribution had been calculated. Under Japanese patent law, patent rights belong to researchers even if the invention is made in the course of their employment. However, a company can conclude a contract with its employees and researchers whereby patent rights are assigned and transferred to it in return for "appropriate" compensation. Dr. Nakamura's case became a test case in establishing guidelines on what is considered "appropriate" remuneration.

On appeal, the parties settled out of court in 2005 and Dr. Nakamura accepted 8 million dollars in return for transferring the patent rights to Nichia. In a joint statement, a group of lawyers assisting Dr. Nakamura noted, first, that compared with the amount of the original proposed remuneration for the invention (200 dollars), 8 million dollars, though much lower

than the value of the invention, was a significant victory; second, the case had clarified the relationship between employee and employer, with regard to the former's inventions; third, establishing a correct evaluation of an invention should help promote research in Japan; and, finally, the new principles on evaluation and remuneration established a much-needed precedent.

### Initial Discussions on IP Strategy

These cases prompted me, and ten other like-minded people to set up a small task force, the National Forum for an IP Strategy, in August 2001, to discuss Japan's IP strategy. We were concerned about the issues in the above cases and believed that, if Japanese researchers, engineers and creators could establish a win-win relation with their employers and collaborators, innovative activity would greatly increase, resulting in strong patents that would contribute to the success, not only of the Japanese economy, but also of the world economy. Japan's long recession at that time was blamed by many people on the financial system and banks; however, the weakness of industry and its lack of competitiveness was also to be responsible<sup>2</sup>.

After many meetings, the Forum came up with a slogan – “Intellectual property: Powering Japan to the top by 2010” – and a list of 100 suggestions, with a ten-year action plan, published in January 2002.

These suggestions covered seven areas – universities, education, private enterprises, governments, diplomacy, legislation and the judiciary – and called for a fundamental review of policies, using a comprehensive, holistic approach. It attracted the attention of some politicians.

### Prime Minister Koizumi's Declaration

In February 2002, the then Prime Minister Koizumi in an annual keynote address to the Diet (Parliament), said that “Japan already possesses some of the best patents and other intellectual properties in the world. I will set as one of our national goals that the results of research activities and creative endeavors are translated into intellectual properties that are strategically protected and utilized so that we can enhance the international competitiveness of Japanese industries. With that in mind, I will establish the Intellectual Property Strategy Council, and powerfully advance the relevant necessary policies.”<sup>i</sup> It was the first specific mention of IP in a Prime Minister's key-note address in the history of Japan.

It resulted in the setting up of a new Intellectual Property Strategy Council, of which I was appointed a member. At its first meeting in March 2002, the Chair of the Council, Prime Minister Koizumi, made it clear that an IP strategy should be considered a key part of an overall national strategy, aimed at making Japan an IP-based nation.

An outline of such an IP Strategy<sup>ii</sup> was prepared. It provided a brief analysis of an economic and social environment surrounding Japan at that time and the vision that Japan should aim to become a country built on IP.

In November 2002, a Basic Law on Intellectual Property<sup>iii</sup> was enacted that stated that in order to realize “a dynamic economy and society based on the creation of added values

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<sup>2</sup> In 2002, Japan had dropped to 27<sup>th</sup> place, its lowest ever, on the IMD global competitiveness rating (IMD 2004, p. 290)

through the creation of new IP and effective exploitation of such IP, and in view of a growing need for intensifying the international competitiveness of Japanese industry in response to the changes in the social and economic situations at home and abroad, the Law is intended to promote measures for the creation, protection and exploitation of IP in a focused and planned manner by stipulating the basic ideas on the creation, protection and exploitation of IP and the basic measures to achieve the ideas, clarifying the responsibilities of the State, local governments, universities, etc. and business enterprises, establishing the IP Strategy Headquarters, and providing stipulations on the development of a promotion program on the creation, protection and exploitation of IP.”

This Law set up the IP Strategy Headquarters, a permanent body based on the work of the IP Strategy Council, March 2003. The Headquarters consists of the Prime Minister (Chair) and all the Cabinet Ministers as members and experts:

- Professor Hiroyuki Abe (Member of Council for Science and Technology Policy);
- Professor Yuichiro Anzai (President, Keio University);
- Mr. Tsuguhiko Kadokawa (Chairman and CEO, Kadokawa Inc.);
- Professor Maki Kawai (Graduate School of Frontier Sciences, University of Tokyo)
- Mr. Hideyuki Kubori (Founding Partner, Hibiya Law Offices);
- Ms. Sumiko Shimosaka (Representative, Shimosaka and Matsuda International Patent Office);
- Professor Nobuhiko Nakayama ( Graduate School of Law, University of Tokyo);
- Dr. Tamotsu Nomaguchi (President and CEO, Mitsubishi Electric Corporation);
- Mr. Fujio Mitarai (President and CEO, Canon Inc);and
- Professor Ryuichi Morishita (Graduate School of Medicine, Osaka University)

I was appointed the Secretary-General of the Headquarters who should report to Prime Minister Koizumi.

### IP Strategy: Vision and Five Priority Areas

The first action plan (the “IP Strategic Program”<sup>iv</sup>) approved by the IP Strategy Headquarters in July 2003, contained some 270 proposals for legislative and institutional reform, including radical measures to speed up patent examination, the creation of the High Court of Intellectual Property; and the reinforcement of measures against counterfeiting and piracy.

Japan’s IP strategy is based on the premise that strategic use of IP is the only way for the country, which lacks natural resources, to maintain its position in the world economy by enhancing its competitiveness. It is also based on the belief that enhanced innovation and creativity in Japan would contribute to the world economy and the well-being of society as a whole, including the countries of the developing world. Japan’s IP promotion plan initially consisted of activities in five priority areas: (1) IP creation; (2) IP protection; (3) IP commercial exploitation; (4) promotion of creative content, particularly audiovisual works; and (5) human resource development.

To dynamize the innovation cycle, the role of universities and R&D institutions, often centers of knowledge and sources of IP, were reviewed. To allow them to play a role in the

commercialization of research results, particularly if funded by the government. Universities are not supposed to commercialize their inventions themselves. However, their active participation in transferring technologies which resulted from university research is of the vital importance to enhance the industry and university collaboration and greater benefits to the society. The role of IP in transferring technologies to the private sector should be promoted by proactive policies for the strategic use of IP. For example, changes were made in laws and policies, for example, encouraging the setting up of technology licensing offices (TLOs), which would assume ownership of IP rights in research results and promote licensing of the associated technologies. Some 100 such offices were established to support the new role of universities in the strategic use of IP.

Regarding patent protection, some 500 fixed-term examiners were employed to reduce the backlog in patent examination; and prior art search was outsourced. These measures aimed at reducing the period of patent examination from 26 months to 11 months by 2013.

The enforcement of IP rights was also strengthened by the establishment of the High Court of Intellectual Property, in April 2005, to speed up IP dispute resolution by improving support from technical experts, establishing a coherent approach to the cases and centralizing the jurisdiction of IP disputes.

In the area of commercial exploitation of IP rights, amendments to the Business Trust Law, in December 2004, allowed right-holders to use their IP as collateral to raise start-up funds for new businesses. Small and medium-sized enterprises could now use their IP strategically to enhance their business opportunities. For example, commercial and trust banks became interested in using IP rights as financial assets which further promoted the creation of an IP market place. Japan has a strong industry producing copyright contents like animation and computer game software.

Among other measures was the new Multimedia Contents Promotion Law, of May 2004, designed to strengthen the collaboration between creators and companies involved in Japan's strong movie, animation and game software industries.

IP education at the university level was reinforced by including IP law courses in the curricula of more than 70 colleges and by setting up specialized IP post-graduate courses. The mid-term goal for IP education and training is that the number of trained, specialized IP professionals should increase from the current 60,000 to 120,000 in the next ten years.

Most recently, Japan's focus has shifted to the contribution it can make to the international community through sharing knowledge and the results of innovation. Conscious of creating and improving an environment in the world which should be conducive to the dissemination of knowledge and technology, bearing in mind incentives for the owner of IP and fair competition in the global market, Japan has started to cooperate with other countries to address the serious threat to innovation and creativity posed by counterfeiting and piracy in the global market.

International cooperation is absolutely essential in implementing effective measures against those activities. For example, to stop the spread of pirated goods border measures in a number of countries should be enhanced by effective international cooperation and technical assistance to the customs offices. Awareness building and education of the general public about the negative impact of counterfeiting and pirated goods and activities should be

undertaken by exchanging best practices in different countries and within an international framework of cooperation.

The vision from which Japan's IP strategy grew is based on the belief that innovation and creativity should be rewarded; counterfeiting and piracy are a serious threat to realizing that vision. It is not exclusively in the private interest of the owner of IP but should be in the common interest of society and of the world to mutually respect the body of innovation and creativity through the IP system. It is on this basis that Japan should continue to contribute to the development of the world and to provide further assistance to developing countries.

### Collaboration with the Legislature, the Judiciary and Users of the IP System

At every meeting of the IP Strategy Headquarters, the Prime Minister, as the Chair, gave instructions to relevant Ministers and the Headquarters for action, following the decisions taken. The Headquarters ensured that all Ministries concerned took timely follow-up action to implement decisions. Every year, the Headquarters evaluated progress and updated and expanded the IP Strategic Program for the following year. So far, the Diet has passed more than 40 laws following the adoption of the Basic Law on IP. As for the judiciary system, IP Court was established. It was one of the first comprehensive reviews of the judiciary system since 1945.

The ruling Liberal Democratic Party (LDP) has also established a committee on IP strategy, both to contribute to discussions at the IP Strategy Headquarters and to the implementation of the IP Strategic Program. On the industry side, Keidanren (the largest industry association in Japan) also set up an IP committee with strong support from President Mitarai (CEO of Canon and a member of the IP Strategy Headquarters). All these initiatives have contributed to creating a strong mechanism driving Japan towards its goal of becoming a top IP-based nation.

### IP Strategy 2006

Since 2003, the IP Strategic Program has been revised, updated and expanded every year. In June 2006, the 14<sup>th</sup> session of the meeting of the IP Strategy Headquarters was held at the office of the Prime Minister. In the largest meeting room of the Prime Minister's Office, a draft IP Strategic Program for 2006<sup>v</sup> he Chairman Prime Minister Koizumi call for close collaboration between industry, academia and the government". The Prime Minister's clear statement was followed by unanimous adoption of the IP Strategic Program for 2006.

As the Secretary-General of the IP Strategy Headquarters, I led a team of some 30 staff members from various Ministries, academia and industry. In 2003, I gave them three instructions. First, we should have a clear mission, i.e. that Japan aims to become a top IP-based nation. Second, we should forget the interests of the organizations or bodies from which we came, and concentrate only on pursuing what is in the best interests of our country. Third, we should keep the spirit of entrepreneurship. The work of the IP Strategy Headquarters was a project ambitious and wide-ranging enough to reform Japan's infrastructure.

Generally, as each Ministry has its own jurisdictions, it often takes government a long time to implement any overall national project – and even then, the results are often modest. However, as it encompasses the viewpoint of the whole government, the IP Strategy

Headquarters was in a key position to prepare an overall design for the national IP Strategic Program and ensure its implementation. It was driven by a unique team, of a composition that had never before existed in the Japanese Government. This team worked day and night, making exceptional efforts and participating in long debates, to make progress in overcoming initial strong opposition in some areas.

### For the Future

The period from 2003 to 2006 established a solid basis for the implementation of the IP Strategic Program. We expect to start reaping the rewards of this effort. A lengthy action plan is under preparation for the 2007 Program; including, for example, promoting innovation; strengthening university Technology Licensing Offices; encouraging collaboration between universities and SMEs; enhancing the national response to the need for high global competitiveness; providing more effective services in patent examination; increasing measures for combating counterfeiting and piracy; promoting the creation of new contents for the creative industries; and enhancing IP education, in order to develop human resource capabilities.

I would like to see the advent of a society where creators and innovators are truly respected, through acknowledgement that their creative works and inventions belong to them, and that reasonable remuneration should be paid to them as a means of appreciation and as an incentive.

Mechanisms to protect IP rights continue to evolve but, at the same time, must retain the delicate balance between the interests of rights-holders and those of society at large. Striking such a balance, requires sensitivity and flexibility in sculpting and applying government IP policies. I hope that Japan will continue to develop as a good model of a harmonious and balanced innovative society, anchored by a supple, forward-looking and strategically-based IP system.

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<sup>i</sup> [http://www.kantei.go.jp/foreign/koizumispeech/2002/02/04sisei\\_e.html](http://www.kantei.go.jp/foreign/koizumispeech/2002/02/04sisei_e.html)

<sup>ii</sup> [http://www.kantei.go.jp/foreign/policy/titeki/kettei/020703taikou\\_e.html](http://www.kantei.go.jp/foreign/policy/titeki/kettei/020703taikou_e.html)

<sup>iii</sup> [http://www.kantei.go.jp/foreign/policy/titeki/hourei/021204kihon\\_e.html](http://www.kantei.go.jp/foreign/policy/titeki/hourei/021204kihon_e.html)

<sup>iv</sup> [http://www.kantei.go.jp/foreign/policy/titeki/kettei/030708f\\_e.html](http://www.kantei.go.jp/foreign/policy/titeki/kettei/030708f_e.html)

<sup>v</sup> [http://www.kantei.go.jp/jp/singi/titeki2/keikaku2006\\_e.pdf](http://www.kantei.go.jp/jp/singi/titeki2/keikaku2006_e.pdf)