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What would you describe as a historic defining incident or event in terms of patents – one that has been influential in shaping the way they are perceived and managed?

One such event would be the establishment of the Trilateral Conference 22 years ago as a result of the initiative and efforts of three visionary leaders of the Trilateral Offices: Mr Wakasugi of the JPO, Mr van Benthem of the EPO and Mr Mossinghoff of the USPTO. At the time, due to the rapid expansion of information, the JPO, EPO and USPTO were all facing difficulties with the search process, which was based on the traditional paper filing system. The Trilateral Conference has enabled the three offices to co operate in developing a common electronic database and to share the vision of pursuing the paperless system.

There have been many memorable historic events to which one could refer, such as the Paris Convention, the Patent Cooperation Treaty (PCT) or the TRIPS Agreement, but the reason I chose the Trilateral Conference as being so important is that in this particular period, the substantive examination system was overhauled, resulting in the first realisation that one single office alone could not cope with the increasing number of filed paper documents.

What do you think are the key factors that will influence the way the patent system might unfold over the next twenty years?

It is difficult to say, as the present situation is very similar to that of 22 years ago. We are now at a point where decisions on how to proceed need to be made. In the past, an emphasis was placed on the exchange of data and the development of a common database, but the offices now share the same database and search system. Today, we use almost the same tools, but the points emphasised in the search and examination conducted in each office

still differ, and the question is whether the mutual recognition of search and examination results will become a reality.

Trilateral co operation is now placing an emphasis on promoting the exploitation of search and examination results of other offices and on finding ways of streamlining the examination process so as to reduce the workload and to contribute to the improvement of the quality of examinations.

The main reason for this has been the advances being made in technology, especially in the high-tech fields, such as biotechnology and IT, including software. Five to ten years ago there was a significant amount of debate over extending the scope of patent protection to gene sequences in biotechnology and to software, as the latter had been protected by copyright. In two cases the United States took the initiative, and now most countries have reached agreement on this matter, and even Europe is talking about enhancing the protection of software. With regard to the patenting of gene sequences, both the JPO and the EPO have a similar attitude: specifically, the patenting of a disclosure of gene sequences without a disclosure of function should not be allowed, and now the USPTO is finally taking the same line. When the USPTO granted patents without a clear disclosure of function, there was much litigation between the universities and the pharmaceutical companies. In some cases, the court held that, with the limited disclosure of function or utility described in the patent application, the scope of the patent was limited. The result has been a move toward concise and rigorous standards, which has moved the examination standard to a higher level, so that the basis of the patent system is in accord with the degree of the disclosure of information. There has to be a balance between strong protection and disclosure of information.

The new technologies such as IT and biotech are very complex. In order to examine them properly one needs staff with a high level of knowledge and expertise. Even the large offices cannot recruit experienced examiners in sufficiently large numbers to cope with the speed and complexity of developments in emerging technologies, as well as the increased volume of applications. The lack of human resources is one major reason why it will be necessary to seek co operation among the offices.

In addition to the Trilateral countries, South Korea, China and other emerging countries are starting to generate high numbers of patent applications. After the United States, China produced the largest number of PCT applications in 2000 in the field of biotechnology. As yet, the quality of the technologies in these applications is unknown, but there are definitely many excellent Chinese researchers and plenty of venture capital available. This development presents a language problem for the USPTO and the EPO; currently, conducting searches of Japanese documents is difficult enough for English-speaking people, but conducting searches in the Chinese or

Korean languages will simply make the situation more complicated. We Japanese are accustomed to searching in a foreign language, and the JPO has put in much effort into overcoming the language barrier by developing an automated translation system.
The patent system is facing a problem with the rapid growth of sophisticated and voluminous applications stemming from the development of technology. The solution lies in increased co operation and in making the best use of technological advances in information technology, such as automated translation. This is the key to maintaining a good examination system and a sound global patent system, which contribute to technological and economic development.

In terms of patents, what do you think are the most significant challenges to the formulation or enactment of policy?
The challenges lie in overcoming the language issue among the offices and making progress related to the issue of translation, even in Europe. Personally, I believe that in twenty years we can overcome this challenge, but our success will only come through co operation. One solution is to develop and expand the automated translation system and its glossary, currently being developed by the JPO, and to improve the system by receiving regular feedback from the other patent offices. There is also the need for some formal guidelines to ensure that concepts in an original language are expressed in concise sentences which can be easily translated. The key to the success is the use of the English language as an international common language or interface. Direct translation between Japanese and Korean is simpler and easier than to translate both languages into English. However, for the benefit of global users including patent offices, translation through the medium of English is considered to be desirable.
There is a need for the harmonisation of law and practice in the field of patents, as well as the mutual recognition of patents granted elsewhere. If one patent office grants a patent, it should be recognised everywhere in the world. This is the ultimate goal and the ideal situation from the global applicant's perspective. The best system would be a single World Patent Office, but this is not feasible. The first step in this direction would be to ensure harmonisation at the level of granting patents, including the harmonisation of the definition of prior art, grace period, novelty and inventive step. Most of the workload is in the field of protection, prior to the granting of the patent. In the next twenty years, a common level of protection with some small differences could be attained through mutual exploitation and confidence in the practices of other offices. If a common search level and identification of common prior art can be realised, then the differences are only based on practices such as claim description or

claim interpretation within the different patent offices due to the different court systems. With regard to global enforcement, there are big barriers to harmonisation as court systems operate differently around the world. However, our goal should be to achieve similar enforcement systems and practices with respect to IP, so that Japanese judges can seek guidance from US, European and also Chinese systems and vice versa.

The aspect of balance is very important in any attempt at harmonisation. A patent provides strong protection, and in return it requires disclosure of information. It is our duty to ensure that there is sufficient counterbalance, particularly in the new technologies (i.e. fair trade, free competition law, antitrust laws) to ensure that patents contribute to the development of society and do not hinder innovation.

There are some clear differences in industry attitudes to exclusive rights. The pharmaceutical industry needs very strong protection because of the high investment (at least $100 million) required to develop medicines and bring them to the market. The industry has claimed that even the current extension of patent rights, which gives the owners of the rights an additional five years' protection, is insufficient in terms of level of protection. In the pharmaceutical field one or two patents can completely protect an idea; i.e. a company has a total monopoly and there is no licensing. A product patent is very strong, whereas a process patent is less so, and industry wants strong patents. However, in the case of the IT and electrical industries, one new product is usually protected by more than 100 or 1 000 patents. Because so many elements are gathered in one product, these industries have a different attitude to the need for a monopoly – cross-licensing is essential and no one company can protect its innovation on its own.

There are ongoing issues with licensing practice, and many are perceived to be unfair. For example, the holder of an upstream technology will try to obtain benefits from the downstream product by demanding royalties as a percentage of the final product, often far in excess of the value of the patent. It is essential that the basic idea and role of patent protection be maintained, but the values of patents are different in bargaining power for each technology. It is important to develop a patent pool system especially for the IT and electrical industries. Perhaps the outstanding issues could be solved by competition or antitrust laws, but it is clear that some kind of harmonisation is necessary to achieve the best use of the patent system. No single patent expert is able to solve this problem – the patent system is simply too strong a monster, and clear guidelines are needed. The question of who should deal with these licensing issues is complex.

Major Japanese companies have been placing emphasis on acquiring many patents for defensive purposes and, with the exception of the pharmaceutical and chemical industries, have hesitated to seek legal protection for their

patents. They are now starting to realise the importance of exploiting patents and seeking a legal solution with a view to winning the global competition. The patent system is designed to seek the development of technology, but this has to be balanced with the potential rewards.

If I had a crystal ball and you were able to ask one question about the future, what would your question be?

What stage of mutual recognition, co operation and exploitation will be attained between the various patent offices?

Hopefully, mutual recognition in a practical sense will be attained. The first stage could be undertaken between the existing relatively large offices, even though in different working languages, with the best use of information technology such as automatic translation, utilising a common database so that the function is practically that of one big office, although physically independent.

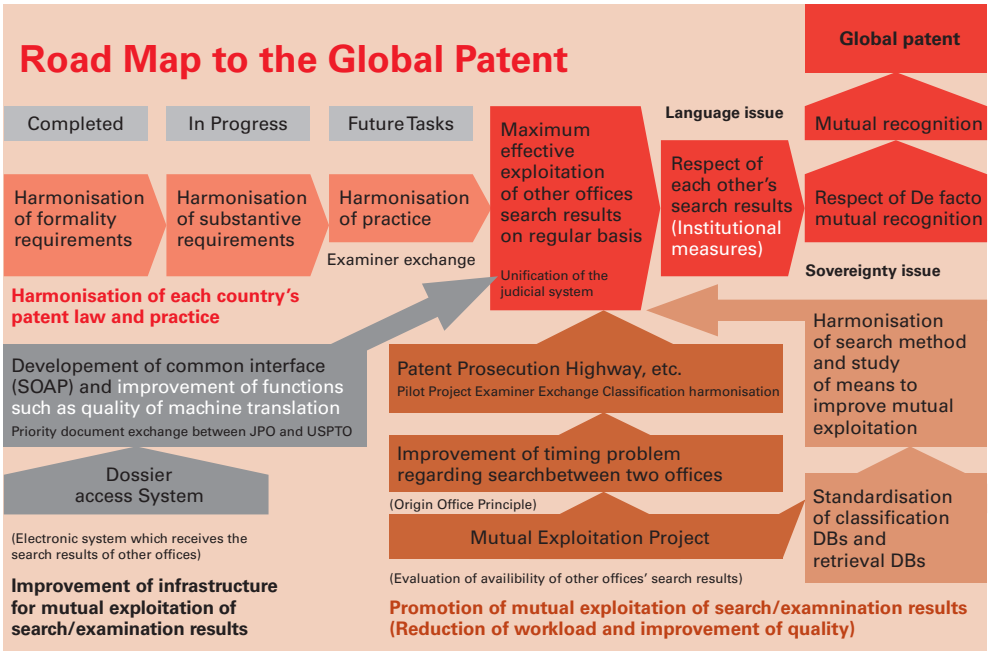
At this stage, the practical harmonisation of the patent system will be achieved on the basis of the first-to-file system, as a result of seeking best practices among offices. The decision on granting the final patent will be left to each country, but almost all identification of prior art, laws and practices will be the same, so examinations will be expected to almost always result in the same decision in terms of patentability. As a result, the objectives of mutual recognition, reducing duplicated work and granting quality patents for patent offices as well as acquiring global patents through less expensive and simple procedure for applicants will practically be attained.

The EPO with its advantage and experience of regional systems and its experience in dealing with different cultures is in a privileged position to take the lead in this matter.

The JPO has developed a diagram (see below) to indicate the steps necessary to realise a global patent. The development of common search tools has now been largely achieved. We are now at the stage of promoting mutual exploitation of search and examination results among the Trilateral Offices.

With respect to work sharing, the Trilateral Offices have more deeply recognised the desirability for the search and examination results of the Trilateral Office of first filing to be provided in a timely manner to the Trilateral Offices of second filing to be used by the Trilateral Offices of second filing to achieve high-quality examination and work reduction.

Subsequently, all results attained by Trilateral co operation will be immediately shared with other IP offices with a view to accelerating the creation of a global patent. This is a key issue for the future. Over the next twenty years we could work on the substantive harmonisation of patents and come close to resolving the language and sovereignty issues, coming closer to the reality of the global patent.



If there were three people whose opinion you could ask on the subject, who would they be?

No-one comes to mind.

Partner, Patent Attorney, Yuasa and Hara, Former Deputy Commissioner of Japan Patent Office.

Mr Ono graduated from Tokyo Metropolitan University, Faculty of Engineering, Department of Industrial Chemistry (B.S.), and in April 1970 he joined the Japan Patent Office. In 1978-79 he studied abroad in the United States (Chemical Abstracts Service, American Chemical Society), and from 1982-85 he was First Secretary of the Permanent Mission of Japan, Geneva. He subsequently held several high positions in the JPO. From 1998 to 2001 he was Director-General of the Fourth (Chemical) Examination Department, then from 2001 to 2002 Director-General of the Appeals Department. He was appointed Deputy Commissioner in June 2002 and served in this post until October 2005. During his tenure as Deputy Commissioner, he engaged in significantly strengthening the examination system in order to achieve timely high-quality patent examination, which is essential to transform Japan into an intellectual property-based nation, and vigorously advanced Trilateral co-operation (EPO, USPTO, JPO) in patent examination and the international harmonisation of IP systems to support the acquisition of rights globally.