I.P. overload? — Thomson Scientific 2007 Patent Focus Report

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A significant rise in patenting activity, and the struggle to deal with this workload, were common themes for patent issuing authorities around the world in 2006. This report examines these and other key developments in the world of patenting over the past twelve months, focusing on the Trilateral Patent Issuing Authorities of Europe, Japan and the USA, plus the increasingly important Chinese and Indian jurisdictions.

CHINA

Action Plan for Intellectual Property Rights Protection

At the end of April 2006, the Chinese government laid out the details of an Action Plan for Intellectual Property Rights Protection. This plan is designed to strengthen China's oft-criticized enforcement regime, and to improve the overall intellectual property (IP) infrastructure in the country. Although the plan looked at all areas, most of it was dedicated to broad themes such as:

- the need for the courts to issue well-reasoned decision
- the international exchange of information
- the importance of education

There were also a number of provisions relating to trademarks and copyrights. Although patents got comparatively little attention, there were some proposals. For example there was a commitment "to draft, formulate and revise" some "laws and regulations in relation to patent protection". More specifically:

1) *"To revise the Regulations on Patent Agency in order to standardize the conduct of patent agents, safeguard the normal order of the patent agency industry, and protect the legitimate rights and interests of interested parties*
2) *To revise and issue the Guide on Patent Review, and edit, publish, and publicize the Guide on Patent Review and translate it into English*
3) *To shape up the proposal on the third revision of the Patent Law by widely soliciting the opinions and suggestions from relevant departments of the State Council, the business community, public institutions, universities, academic research institutes and patent agents on the basis of completing the research on the third revision."*

However, no time frame has been set for any of this.

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Rise in patent applications

Although it has been a relatively quiet time on the legislative front, that does not mean to say that patents have not been big news in China over the last 12 months. For example, in October, the World Intellectual Property Organization (WIPO) published statistics[1] showing that six times as many patent applications were being filed in the country than just 10 years previously. In fact, more were submitted to the Chinese State Intellectual Property Office (SIPO) in 2004 than were received by the European Patent Office.

A total of 573,178 applications (of which 210,490 related to invention patents, as opposed to designs and utility models) and 268,002 grants (57,786 for invention patents) were made in 2006. There were 102,836 applications from abroad, and 44,142 patents were granted to foreign entities – the vast majority in both cases relating to invention patents.

But while the WIPO report showed a 488% increase in applications from domestic entities since 1995, other figures released during 2006 showed that more than 90% of Chinese companies have no patent application experience, while only 0.03% own intellectual property rights. All of this raises at least one important issue: with annual applications already standing at 130,000, how will SIPO cope once Chinese companies actually begin to patent in the same numbers as companies in other parts of the world? The Trilateral Authorities' pendency problems could be as nothing to those being experienced in China five or 10 years from now.

Testing the limits of intellectual property rights

There are indications that Chinese businesses are indeed becoming more patent-savvy. For example, the *Financial Times* reported in October that a growing number are aggressively defending themselves in infringement cases in the US — where once they would have agreed to settle, now they are willing to go before judge and jury. "*Within the past year or two, the Chinese have begun standing up for themselves and testing the limits of intellectual property rights that are asserted against them*," Mark Hogge, a patent attorney at the law firm Greenberg Traurig, told the *FT.* "*They are learning the rules of engagement in the US marketplace and that includes intellectual property litigation*." Earlier in 2006, computer flash memory product Netac is thought to have become the first mainland Chinese company to sue an American rival for patent infringement in a US court.

Back in China itself, Pfizer emerged victorious in a high-profile case relating to the decision by the Chinese Patent Re-examination Board to invalidate the company's patent on Pyrazolopyrimidinones for the treatment of impotency, on the grounds of insufficient disclosure. Pfizer appealed and in June 2006, the Beijing No 1 Intermediate People's Court found in its favour. However, that is not the end of the story as an appeal from a group of Chinese generic manufacturers is due to be heard by the Supreme Court in 2007.

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EUROPE

The 53,300 patents granted by the European Patent Office (EPO) in 2005 (the latest year for which figures are available) means that it has now awarded over 760,000 since the first were handed out in 1980. That is equivalent to a figure of 6.3 million national patents in the 31 member states of the European Patent Convention.

The pendency problem

Despite the approximately 3,500 examiners now employed at the EPO, however, pendency times remain a problem. Although around 25% of patent grants are now issued inside the current target period of 36 months from application, the average time to grant remains high, at 45.3 months (though this does represent an improvement of nearly a month on the 2004 average). Things have not been helped by a series of strikes organized by EPO staff protesting over moves by the Office to introduce a new reporting system for examiners, which focuses on the need for higher productivity at the expense, the strikers claim, of the time allocated for examination of individual patents. Staff also object to a plan to make them contribute more to their pension scheme. The one day strikes are estimated to have cost 10,000 working days up to now.

During 2005, 2,960 oppositions were filed, meaning an opposition rate of 5.4%. The Boards of Appeal, meanwhile, registered 1,684 new cases during the year, representing a 9.8 % increase on 2004's figure of 1,533; settled appeals in 2005 numbered 1,499, slightly up on the previous year. During 2005, there was also some progress on dealing with the backlog of cases waiting to be heard by the various boards of appeal — by the end of the year, 753 appeals had been pending for over two years, which represented a 9% improvement on 2004's total of 832.

Community Patent woes

In October 2006, European Union (EU) Internal Market Commissioner Charlie McCreevy was hinting that the Commission had finally recognized what had been apparent to everyone else for quite a while: "*Industry is not enamoured by the compromise reached by the Council in 2003 on the Community patent in terms of the proposed solution in respect of language and the jurisdictional system, because they don't achieve the cost reductions and the simplification of the system that industry wants*." As a result, he hinted that the Commission may throw its weight behind two other initiatives: the European Patent Litigation Agreement (EPLA) on jurisdiction and the London Agreement (or Protocol) on the language regime. "*Before the end of this year*," he explained, "*I will be proposing that the Commission adopt a communication and action plan aimed at tackling the patent issues all in one approach. In particular, I want to tackle the jurisdictional issue so that we don't have different courts in different countries delivering divergent interpretations on the same patented invention*." In a

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telling final sentence McCreevy stated: "*We cannot aspire to being the most competitive economy in the world if we don't find workable solutions to patent application and protection.*"

By the end of the year, however, things did not look so positive. As the Commission edged towards support for the EPLA, its position was blown out of the water by France, which announced at a European Council meeting in December that it could not support the initiative because it did not conform to Community law and was a threat to French sovereignty. Instead, said the French — who were supported by a number of other countries, including Spain and Italy — Europe needs a Community court to deal with litigation.

McCreevy was understandably exasperated, especially as it had taken the French so long to reach this position. Speaking to delegates at the Pan-European IP Summit on 7th December 2006 he said: "*I will not over-dramatise the situation. But I will put it to you straight. If we are not able to find more fertile ground for a proposal over the coming months, then we might as well put our energies to better use … Is there a will to find a solution at EU level in the interests of the overall competitiveness of the EU economy?*" The Commission was due to make official proposals relating to European patent reform by the end of 2006, but the release of the plans was held back to the first half of 2007.

One potentially good piece of news, however, was the decision of the French Constitutional Court that the London Agreement on Translations did not run contrary to the French constitution. There have been worries that France would be reluctant to sign the Agreement — something that is necessary if it is to come into force and so herald savings of 50% or so on the typical translation costs of a European patent application — because of concerns about the effect the Protocol would have on the French language and its role in the dissemination of scientific knowledge. Following the Constitutional Court's ruling there are no legal obstacles to French ratification, it is now just a question of politics; which means we could be waiting some time yet. There are a lot of vested interests across Europe in maintaining the current system.

INDIA

First life sciences product patent

At the end of February 2006 a significant milestone was reached in the history of patent protection in India when Roche India Pvt Ltd, the Indian arm of Swiss drug maker F Hoffmann La Roche, received a patent for its biotech drug Pegasys (Peinterferon alpha-2a). It was the first product patent to be granted to a life sciences company in India. Roche India had originally submitted its application under the Mailbox facility, introduced in 1995 as a transitory measure designed to lead up to the introduction of product patents on 1st January 2005. Pharma companies seeking product patent protection, something that India had not allowed

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prior to signing up to TRIPs (the Agreement on Trade Related Aspects of Intellectual Property Rights), were asked to deposit their applications into the notional mailbox, which was opened on the day the new Indian patent law came into force — approximately 9,000 applications were received.

Although other product patents have been granted to pharma companies since Roche India received its patent, the overall number is only around the 100 mark. A substantial backlog is developing, as 25,000 applications from the pharmaceutical sector are now said to be pending. Overall, the Indian patent office expects the total number of patent applications in the country to rise by over 20% during fiscal year 2006/07, meaning a total number of around 30,000.

Pre-grant oppositions

However, it is not just backlogs that create problems for the pharma sector. India's patent regime also allows for pre-grant oppositions, a process which permits third-parties to indicate officially in advance why they object to the grant of a patent. Currently, more than 100 such oppositions have been filed with the Indian Patent Office, although some of these relate to the same application.

It was at the pre-grant opposition stage that the Novartis patent on the cancer drug Gleevec came unstuck in January 2006. This rejection has subsequently escalated to the point where the Swiss company is challenging the legality of the Indian Patent law. It is not the opposition itself that Novartis objects to, but the reasons under which the opposition was successful: specifically Section 3(d) of the Patent Act which states that "the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance, or the mere discovery of any new property or new use for a known substance, or of the mere use of a known process, machine or apparatus, unless such known process results in a new product or employs at least one new reactant," is not patentable. Novartis claims that in placing additional requirements for patentability beyond novelty, commercial applicability and non-obviousness, India's Patent Law is not TRIPs-compliant. The case is now with the Chennai (Madras) High Court.

Also in 2006, new rules simplifying patent filing, examination, search and grant procedures, and establishing time limits for pre-grant and post-grant opposition procedures came into force. Under the rules, patent applications must be published within 18 months or earlier if this is requested; patent applications must be referred to a patent examiner within one month of the receipt of an application for examination, and a first examination report should be provided within six months. The time frame for filing a pre-grant opposition, meanwhile, has been extended from three to six months. Finally, patent applications can now be submitted in one of four locations: Kolkata, Delhi, Mumbai and Chennai.

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JAPAN

Although the architect of Japan's IP strategy resigned in September 2006, the government continues to take a close interest in the improvement of the country's patent system. It was back in 2002 that Prime Minister Junichiro Koizumi identified the need for Japan to become what he called an intellectual property nation. Only by creating and exploiting valuable IP, he said, would Japan be able to prosper in the global economy.

Strategic Programme for the Creation, Protection and Exploitation of Intellectual Property Rights

Following Koizumi's pronouncement a specially convened Strategic Council on Intellectual Property developed a Strategic Programme for the Creation, Protection and Exploitation of Intellectual Property Rights. This has had a profound effect on the way in which patents are viewed in Japan. An IP High Court has just entered its third year of operation, for example. This considers all Japanese Patent Office (JPO) related appeals, as well as those from the Tokyo and Osaka district courts which have national jurisdiction to hear first instance cases involving patents, utility models and computer programs.

University powers

Universities have also been given far greater powers and obligations with regard to the commercialization of patents and other IP rights. They now have a brief which encompasses not only education and research, but which also requires them to make a contribution to society. All national universities have become corporations and have seen significant cuts in the funding they receive from central government. To counter-balance this, they have far greater freedom to keep the proceeds from the IP which they create. There are now around 40 technology licensing offices in the country's academic institutions as a result.

Speeding up examination

However, it is at the JPO where the Koizumi initiative has had the greatest effect. A central plank of the IP Strategic Programme, for example, is to speed up the examination process, so that by 2013 it takes no more than 11 months on average to grant a patent. This requirement was reaffirmed in the IP Strategic Programme 2006, which was launched in June. It is an ambitious target, given that pendency times are expected to reach 29 months in 2008. So in order to stand any chance of meeting it, the JPO has been busily recruiting examiners and upping the workload of each one of those employed.

In April 2006 110 examiners, including 98 fixed-term examiners, were appointed. This means that for the period encompassing fiscal years 2004 to 2006, a total of 342 examiners were

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brought on board. For fiscal year 2007, the JPO has requested that a further 149 be hired. For those that do come on board, there is a lot of hard work to look forward to.

The annual number of applications examined per examiner (based on the number of patent claims) during fiscal year 2005 was 1,137, and the aim is to increase this to approximately 1,400 by fiscal year 2010 (a 30% rise over five years). Although no final figures are available, it is forecast that the number will have reached around 1,300 during 2006, a 14.3% year on year rise. While tackling the workload is obviously very important, the amount of work being assigned to each examiner does raise concerns about the quality of the examination process. Overall, the JPO received 427,098 patent applicants during 2005 — the last year for which figures are available — and it made 111,179 grants.

Employee awards

Another area of intellectual property that has received prominent coverage in Japan over recent years has been remuneration for workers whose research has led to the creation of valuable patents for corporations. In 2004 and 2005 a string of cases saw ex-employees being handed large awards by courts who felt that the original compensation they had been offered by their ex-employers was insufficient.

The one that got most attention was probably the Tokyo District Court's 2004 ruling that Shuji Nakamura should receive the equivalent of USD190 million from Nichia Corporation for the work he did at the company which led to the development of the blue light-emitting diode or LED — a technology widely used in video screens and other color display devices. Although this amount was significantly reduced in a settlement agreement mediated by the Tokyo High Court in 2005, a number of Japanese companies reworked their employee compensation packages as a result; changes aimed at clarifying Japanese law were also made, although in practice these did not actually help very much.

In October 2006, the Japanese Supreme Court ruled that when compensation is being decided, patents filed outside of Japan should also be factored into the equation. This was in a case that saw Hitachi ordered to pay the equivalent of USD1.4 million to Seiji Yonezawa for his work on the development of CD and DVD technology while he was at the company.

UNITED STATES

It has been a tumultuous 12 months for patents in the US, with major developments on the legislative, judicial and administrative fronts.

Another prolific year

2006 was a record-breaking year at the United States Patent and Trademark Office (USPTO). For the 14th year in succession, IBM received the most US patent grants, followed by

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Samsung, Canon, Matsushita (Panasonic) and Hewlett-Packard. While IBM received over 3,500 patents, each of the other four received more 2,000 — the first time that any companies apart from IBM have achieved this. The 173,772 patents issued by the USPTO during 2006 were also a record, representing a 20.8% increase on the 2005 figure. On top of this, nearly 445,000 applications were submitted during fiscal year 2006. Perhaps most interesting of all, however, was the drop in the overall approval rate for patents to 54%. Just three years previously the figure had stood at 70%. At a time when the quality of many USPTO patents is being criticized, this indicates that examiners may be getting stricter.

It seems that perhaps the USPTO is beginning to reap the rewards of an aggressive examiner recruitment drive, something that has been made possible by at least a temporary end to fee diversion — allocating a portion of the revenue generated by the USPTO to other parts of the federal government. With the USPTO keeping all the money it raises, it was able to recruit 1,000 new examiners during 2006, with more to come during 2007. But it is also worth bearing in mind that patents have become a front page issue in the US. It is not unreasonable to believe that this extra scrutiny is also playing a part in ensuring more thorough examinations. After all, no-one wants to end up in the newspapers because of a mistake they have made.

A nation holds its breath

One of the reasons for the extra attention patents are now getting is the BlackBerry dispute between RIM and NTP, which settled in early 2006 when the Canadian company agreed to pay NTP USD612.5 million. However, this was not before millions of Americans and the country's military were kept on tenterhooks for weeks wondering whether they would no longer be able to use their precious messaging tool. As the case developed the term patent troll became much more widely known, and an increasing number of commentators asked whether the balance of power in US patent litigation had gone too far. Never mind the facts of the case, America stood to lose the BlackBerry and that meant there was a crisis!

Landmark cases

After hearing only a handful of patent cases during the previous decade, the US Supreme Court has been busy considering a series of them over the last 18 months. In May, the Court's nine justices handed down their judgment in the *eBay Inc et al v MercExchange LLC* case on the extent to which injunctive relief should be an option in patent disputes. In so doing, they set out a new four point test for courts to consider before they grant injunctions:

1. The plaintiff must have suffered irreparable injury.
2. Other remedies available to the plaintiff, such as monetary damages, cannot compensate for the injury.

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3. When the interests of the plaintiff are balanced against the interest of the defendant, a permanent injunction is an equitable solution.
4. The public interest must not be harmed by the granting of a permanent injunction.

Meanwhile during its Autumn session, the US Supreme Court heard two other cases. In *MedImmune v Genentech* the issue was whether, contrary to existing doctrine, a licensee should be able to challenge the validity of the licensor's patent. The decision was handed down at the beginning of 2007 and by a majority of 8-1 the justices sided with MedImmune and found that such a challenge was possible.

At the time of writing this review the decision in the second case — *KSR International Co v Teleflex Inc* — has yet to be delivered. This case deals with the doctrine of non-obviousness and how it is applied both at the USPTO and also by the courts in infringement actions. Depending on what the Supreme Court decides, non-obviousness may be a much harder barrier to get past: something that will affect not only future patentees but also those who currently hold patents. Given the Court's findings in the *eBay* and *MedImmune* cases, the likelihood is that there will be at least some changes to the present teaching/suggestion/motivation (TSM) test.

Patent Reform Act 2006

On the legislative front, two powerful Senators proposed the Patent Reform Act 2006. Co-sponsored by Orin Hatch and Patrick Leahy, the previous and current chair of the Senate judiciary committee, the legislation would mean the introduction of the first to file system into the US, as well as the creation of a post-grant opposition system, and a reduction in the scope for forum shopping. Most significant perhaps is the requirement that courts would have to calculate royalties owed by infringers based not on the overall value of a product which uses the patented technology, but instead on the economic value of the "novel and non-obvious features" covered by that patent alone — something that could be expected to reduce awards in US patent litigation considerably.

[1] Report available at www.wipo.int/ipstats/en/statistics/patents/patent_report_2006.html#P70_1820

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