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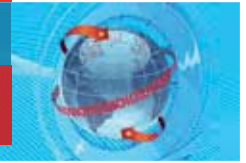
## Innovation in China

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# IP ACQUISITIONS IN CHINA

BY ALAN ADCOCK



China's commitment to technological development and innovation is not only fostering a shift from "Made in China" tags to the more quality-indicative "Made by China" labels, but is also making local technologies targets for acquisition by foreigners. Developed and incubated in state-funded, private, and Sino-foreign research and development (R&D) centers, these technologies are often discovered by foreign enterprises as they conduct due diligence on Chinese targets for acquisitions, joint venture partnerships, and even contract-manufacturing arrangements.

Such discoveries of local technology should not be surprising. With China's large and highly skilled research and scientific community, low costs for research and manufacturing, sophisticated laboratories, and government incentives for creation and innovation, the pace of China's climb up the technological ladder should only increase. What is surprising, however, is the fact that many of these technologies are for sale. In China's case, there may still be some Rembrandts in the attic.

## Commitment to technology and innovation

China has long been committed to the development of innovative technologies. Its laws and regulations, as well as its five-year plans (FYPs), promote technology creation, and national programs like the Major Science and Technology Projects of the 11th FYP (2006-10) and the National High-Tech R&D Program, also known as the 863 Program are designed to encourage development in technological fields.

To implement these and other plans, several PRC ministries and agencies in July 2006 issued an opinion to encourage innovation and technology transfers into China. The Opinion on Methods for Promoting Technology Transfers and Innovation and Encouraging Changes in Foreign Trade Growth focuses on biotech, telecom, petrochemicals, civil aviation and aerospace, environmental protection, and renewable energy. Among other things, the Opinion encourages foreign companies to partner with local companies, R&D centers, and universities in their research endeavours.

## The state of China's R&D

Statistics compiled by the PRC Ministry of Science and Technology show that the number of full-time personnel engaged in basic research in China rose from 78,800 in 2001 to 115,400 in 2005, a 46.5 percent increase.

The country now has roughly 200 national labs in operation and an expanding network of satellite field research stations. Government funding for science and technology has also significantly increased, from ¥54.4 billion (\$6.6 billion) in 1999 to ¥133.5 billion (\$16.1 billion) in 2005.

Apart from financial support, the government encourages the patenting of new technologies from both government and university R&D centers, and from state-owned and private enterprises. Statistics from the PRC State Intellectual Property Office (SIPO) suggest that these efforts may be paying off (see Table). Though China's R&D strength may not match that of Western economies, it is clear that the PRC government has made and will continue to make technological development a national priority.

## R&D centers in China

Encouraged by tax incentives, investment authorities, Chinese consumers, and the globalization of technological development, many foreign enterprises in China have set up R&D centers. According to the PRC Ministry of Commerce, about 46 percent of multinational corporations operating in China established R&D centers by 2005, and China reportedly has more than 750 foreign-invested R&D centers, up from about 400 in 2003, mainly concentrated in technology-intensive industries, such as information technology, electrical motors, telecom, and pharmaceuticals.

Additionally, in a survey conducted in 40 cities in September 2006 by the PRC National Bureau of Statistics, about half of the 1,600 enterprises surveyed said that they prefer collaborative research projects to going it alone in China. By the end of 2005, 97 MNCs had set up 202 collaborative R&D centers with 36 universities in China.

The vast majority of centers are located in Beijing, Shanghai, Shenzhen and Tianjin. While many domestic enterprises are setting

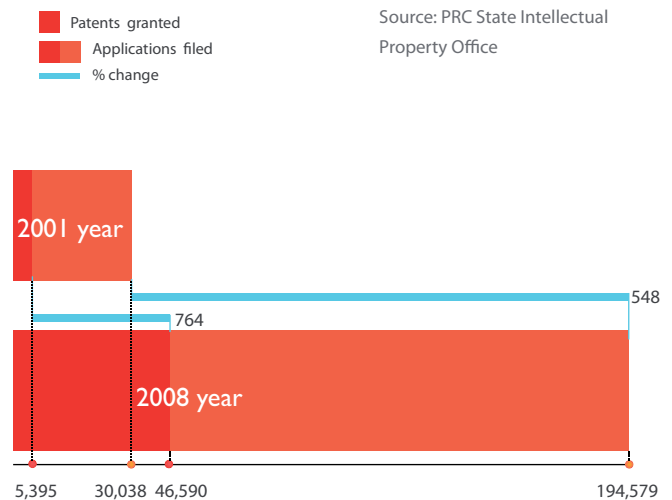
up their own R&D centers in China, however, large Chinese MNCs have also set up centers overseas. For example, Haier, Lenovo and Huawei have all set up R&D centers in the U.S. and in other overseas locations.

## Acquiring Chinese technology

When Chinese technology is being acquired, companies should conduct due diligence on that technology to verify several things. First, a company should identify the technology to a degree sufficient to confirm that it fits its needs. Second, the company should confirm that the seller owns the technology and whether any state funds were used in its development. Third, the company should ensure that the technology does not infringe upon any third party's intellectual property (IP) rights.

Due diligence on registered IP (normally pat-

Domestic Invention Patents, 2001-08



ents and designs, but occasionally trademarks and copyrights) is generally straightforward, but unregistered IP (normally in the form of trade secrets or confidential information) can be trickier. Comprehensive due diligence should also analyze previous transactions and other relevant agreements that may affect what can be done with the target IP.

## Identifying the technology

A Chinese seller should be able to describe the technology in enough detail for a buyer to understand the technology fully. This can be a simple step if the target technology is a product, but if it is a process, then the description may be more complicated, especially if



the process is a trade secret kept in the heads of a small reference group or in an operator's manual that the seller may not want to share until the deal is completed. The parties to a transaction can address this problem with a nondisclosure agreement.

Identification is also critical to determine whether the technology falls within certain categories of "prohibited," "restricted," or "free" technologies as set out in the 2002 Regulations for the Administration of Technology Import and Export, the principal guide for foreign acquisition, use, and export of Chinese technology. If the technology belongs to the prohibited or restricted category, it may not be transferable at all, or only with government approval.

### **Confirming ownership**

Determining whether the seller actually owns the technology normally requires several meetings with relevant technicians to understand how the technology was developed. If no longer with the company, where are those technicians now? Were any state funds involved in the development? If external subcontracted testing and development were involved, to what degree might input give rise to third-party inventorship rights to the technology? It is crucial for a prospective buyer to know how the technology was developed, by whom, when, and with whose funds.

Additionally, a prospective buyer should thoroughly review the employment agreements of the employees who assisted in the development to confirm that the seller owns the employees' contributions, whether the seller has imposed and enforced confidentiality restrictions, and whether the employees have been "reasonably remunerated" for their contribution to the technology, as required under PRC law. These steps will allow a buyer to avoid future claims by the employees responsible for its development.

Prospective buyers also should ensure that legal due diligence includes a complete review of all licenses, rights to acquire, liens or other forms of security over the technology and the like. In particular, buyers should investigate whether the technology's licensees have been involved in counterfeiting or breach of agreement actions, have IP protection measures in place, produce for competing brands, or have third party or subcontractor involvement in the licensed IP. Buyers should also perform a "brand hygiene check" to ensure the licensees' ethical, regulatory, and environmental compliance. Last but not least, buyers should investigate the licensee's tooling and equipment used in manufacturing. Buyers should also review copies of any executed powers of attorney into which the seller has entered.

### **Assuring noninfringement**

To address the possibility of infringement, a buyer should normally begin with a "novelty search" at SIPO to obtain an authoritative opinion on whether the technology is new and inventive, two of the three criteria for patentability. This search could aid a buyer if the seller has not made the technology public and if the technology is still suitable for patenting. The novelty search also identifies patents, patent applications, and publications, which can help the buyer determine whether a seller may have infringed upon third-party IP rights.

### **Obtaining further assurances**

If, after the due diligence is completed, questions remain unanswered, a buyer may want to obtain statements from the seller and, if necessary, from the relevant technicians. Such statements would confirm that all disclosures made during the course of the due diligence are true and would indemnify the buyer against liability for infringement of IP rights if such an infringement stems from something that was not disclosed or disclosed incorrectly.

After obtaining these statements, the parties can draft an acquisition agreement to keep the deal alive, though, in the case of restricted technology, such an agreement does not take effect until the government approves it.

### **Government approval**

The Regulations for the Administration of Technology Import and Export specify the procedures for government review and approval of technology acquisition deals in China. Technology in the prohibited category may not be exported, so an agreement involving this kind of technology is illegal.

Restricted technology can be exported, but only after obtaining an export license from the government.

An agreement relating to free technology, which constitutes the bulk of technology acquired from PRC entities, only needs to be registered. The process involves an online application and approval by the local authority in charge of foreign trade, who issues a registration certificate. An agreement that involves free technology takes effect when it is executed.

### **Judicial Scrutiny of Technology Acquisition Deals**

Although China encourages Sino-foreign collaborations in technology creation and use, the PRC government has acted to tackle concerns about foreign misuse of Chinese technology, and there has been a growing policy emphasis on local innovation in judicial interpretation of technology acquisition contracts. As a result, prospective buyers should exercise

extreme caution and remember that assignment-back provisions normally acceptable in the West, whereby local innovations are assigned back to the licensor of the original technology, bear risks. How courts interpret such clauses depends on the technology itself, the venue, and the extent to which the assignment clause meets the basic requirement of reciprocity and reasonableness between the licensor and the licensee.

One sign of the growing emphasis on local technological innovations is the anticipated toughening of China's "first filing" rule. Currently, inventions "made" in China by a PRC entity or individual should be "first filed in China," but there is no penalty for failing to comply. A draft amendment to the Patent Law, however, would subject the inventions of all entities and individuals in China to the first filing requirement, including inventions developed by Sino-foreign joint ventures and wholly foreign-owned enterprises. SIPO would then reject patent applications that do not meet this first filing requirement and invalidate patents discovered to have been developed in China but first filed overseas. If adopted, foreign companies interested in acquiring Chinese technology would have to ensure that the technology is filed first for patent protection in China to ensure protection. This would add another step to the due diligence necessary for acquiring Chinese technology.

### **Prospects**

According to the Organization for Economic Cooperation and Development, China spent an estimated \$136 billion (adjusted for PPP) on R&D in 2006, more than Japan and second only to the United States. This reflects China's desire to enter the realm of innovative economies and, for foreign companies, presents opportunities to acquire new technologies for commercialization in China and abroad.

A savvy buyer knows that technology acquisitions in China must be approached with the same care and due diligence one would require of similar deals in other countries. Barring any surprises, however, changes to rules on the acquisition of Chinese technology should not discourage foreign buyers. The government's expanded support for technological development should lead to a wealth of choices for those hoping to acquire technologies in China.

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# FROM INFRINGER TO COMPETITOR – DIRECTION OF INNOVATION IN CHINA

*It seems the well-trodden path to development is for developing countries to 'adopt' innovation from their more developed neighbours. This process occurred during the industrial revolution when Great Britain arguably led global industrialisation, and likewise in the first half of last century when industrialised countries like the US, Germany and Japan took the lead in innovation. Indeed it was Isaac Newton who once reputedly remarked: 'If I have seen a little further it is by standing on the shoulders of Giants'.*

BY **ELLIOT PAPAGEORGIU**



The points we will consider in this paper are:

- Whether there is an indication of international level intellectual property (IP) being developed in China?
- If and how counterfeiting and infringement of IP in China is 'spiralling' into competition?
- By way of a case study from the power-tools industry exemplify this spiralling into competition.
- What conclusions we can draw from the process and how best to minimise the impact of this 'creeping' competition.

## (i) Is IP being developed in China?

Judging by the filing and grant figures of the China Trade Mark Office (CTMO) and State Intellectual Property Office (SIPO), Chinese companies are expanding their IP portfolios quite substantially. Chinese companies registered in 2008 over 342,000 trade marks. This was not only the highest figure on record, it also represented a growth of 59% over 2007 (see fig.1).

Chinese companies also filed a record number of patents in 2008 (see fig.2) and looking at the number of Patent Cooperation Treaty (PCT) filings (a system of patent filing which allows the applicant to expand within a defined period of time its application to other signatory countries of the PCT system), China in 2008 for the first time supplanted Great Britain as the 6th largest filer of PCT applications (leaving only the US, Japan, Germany, South Korea and France ahead of it) (see fig.3).

However these statistics are somewhat distorted by the fact that

various provincial governments support local companies filing PCT applications with payments ranging from about US\$700 to over US\$7,000 for PCT filings that are progressed by these companies. Further, looking merely at the number of filings says little about the quality of the patents being filed, and there are some questions about the quality and viability of some of the PCT filings originating from China and some doubt the number of such PCT applications which are designated as 'triadic patents' (patents which are filed in three key market jurisdictions of the US, Europe and Japan, which is one measure used to judge how valuable the patent is to the filer).

So what can be said about IP in China is that innovation and IP fil-

FIGURE 1

