

# Europe's first patent value fund

Funds that invest in patent portfolios are not common anywhere. In Europe, however, they are unknown. Until now, that is. Based in Germany, IP Bewertungs AG pays to take a share of patent portfolios in the hope of securing lucrative licensing deals that will see their overall value increase

By **Stephan Lipfert** and  
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Ross Perot has a killer instinct for smart technology investments. He made the lion's share of his fortune by establishing electronic data systems which he finally sold to General Motors for US\$1.8 billion in cash and stocks. He hit the jackpot again when he invested US\$20 million in a 12% stake in NeXT; a few years later, Apple acquired the company for US\$400 million.

Perot is now preparing for his next big deal. He has invested US\$200 million in a private equity fund that focuses on enterprises with undervalued patent portfolios. The fund, which will be issued by Chicago's ICMB Ocean Tomo Bank, is aimed at majority holdings in companies with an average turnover of between US\$50 million and US\$1 billion. Core industries will include semiconductors, biotechnology, nanotechnology and software.

As Perot's move shows, patents are fast becoming the darlings of investors. Ever since the early 1980s, intangible assets have had an increasingly strong impact on companies' bottom lines, while the impact of tangible assets has waned. In 2002 Credit Suisse First Boston reported that tangible assets made up only 25% of the market capitalisation of the top 500 enterprises in the United States; intangible assets made up the rest.

Those interested in company intangibles are increasingly focusing on the indirect uses of patents. Dealing in knowledge is no longer the preserve of big businesses such as IBM and Pfizer; small enterprises with highly specified patent portfolios are increasingly winning out in big-ticket litigation. Online

bookshop Amazon.com recently paid out US\$40 million to Soverain Software to settle an infringement action. In April 2005, Medtronic paid US\$1.35 billion to Gary K Michelson and Karlin Technology Inc, while Nano-Proprietary Inc sued Canon for infringement of its SED-screen patents. Even the European Central Bank is threatened with international litigation: US security company Document Security Systems filed suit against the bank in early August 2005, alleging that its patents had been infringed in the production of euro banknotes.

Patent brokers such as IPotential LLC (see also <http://www.ipotential.com/overview/>) and IP Bewertungs AG (IPB) are expecting an increase in annual worldwide licence fees from US\$10 billion in 1990 and US\$100 billion in 2000 to roughly US\$500 billion in 2015. According to a 2002 study conducted by the Equipment Leasing and Finance Foundation, the market value of patent-based licences amounts to US\$1 trillion in the United States alone. This figure is expected to increase to US\$5 trillion by 2010.

Due to their external commercialisation, patents are increasingly recognised as an individual asset class. In addition to IP investment funds, IP investment banks are now showing up in the patent community. Just a few years ago everybody was complaining that the technology transfer market was underdeveloped. Today, the activities of companies such as Inflexion Point Strategy LLC, IPotential LLC, IP Value Management Inc and ICMB Ocean Tomo in the United States, and IPB in Europe, show that patents are quick assets.

To invest successfully in patents, however, the major hurdle of market intransparency must be overcome. Thus far,

the significant costs of exploitation have proved prohibitive, preventing most investors from accessing this asset class.

Having identified, or even owning, a high-potential portfolio does not necessarily guarantee the anticipated revenues or royalties. In most cases, an initial investment is needed to find the perfect licensee – an outlay which the patent holder is rarely willing to make, due to the uncertainty of its licensing activities. The situation worsens in times of economic recession.

But while these are all undoubted problems, it is the case that an efficient exploitation process, combined with a structured commercialisation process, will offer investors interesting opportunities to access patent assets.

**Patent asset management**

In late 2004 a special investment fund was created in Europe. The Patent Value Fund (PVF) invests only in patent realisation and commercialisation. IPB, which is managing the fund, initiated it as a private placement. In contrast to Perot's private equity fund, IPB's investors are interested only in intangible assets. In other words, the investment focuses purely on patent potential; the typical industrial risks and management risks are overlooked.

The first PVF focused on individual inventors and insolvencies only. It was targeted at private investors that were willing to invest in a blind pool. To satisfy institutional investors' demands for alternative investment products, IPB integrated the first PVF as an incubator into a patent fund family.

IPB acquires portfolios from medium to large-sized enterprises. Depending on the portfolio's size, an incubating fund is either individually customised to the company or designed directly as an institutional fund for the investor's individual requirements. The average incubator size is about Euros 20 million, while individual institutional products start at Euros 80 million.

The core requirement for the asset management of a PVF is the ability to separate the wheat from the chaff – that is, the valuable patents from the less valuable. IPB has integrated core elements of its quantitative valuation method (see box: A market approach to valuation) in a structured investment process which allows for active and passive portfolio acquisition.

**Patent investment process**

The PVF investment process involves five steps: acquisition; quantitative valuation;

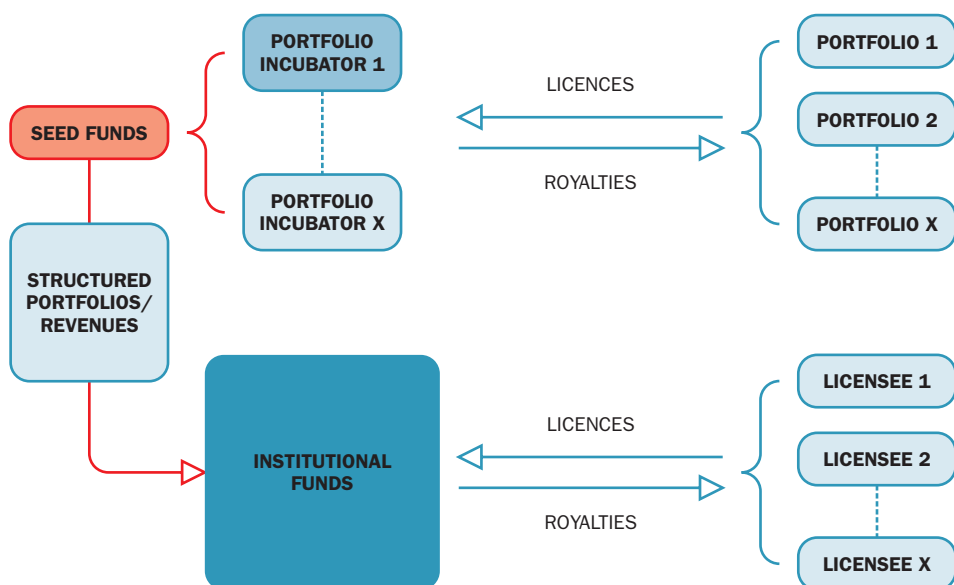
qualitative audit; realisation analysis; and purchase/licence.

First, patent portfolios are acquired – actively as much as passively – through avenues such as the internet, exhibitions, publications and experts' fairs. In Germany, over 190,000 patents have been filed in the last three years alone. On average, one-third of all applications filed between 1990 and 2000 were granted. Of course, many patents are unavailable for licensing, but Germany is famous for its *Tüftler* and its *Mittelstand* companies, which are interested in finding investors to commercialise their knowledge, and these can often prove fruitful sources. Further places to find interesting patent portfolios include government-supported R&D institutions, insolvencies and corporate restructurings. Moreover, small and medium-sized enterprises and international companies have begun to see patents as assets and, as a consequence, are keen to generate revenues from their portfolios.

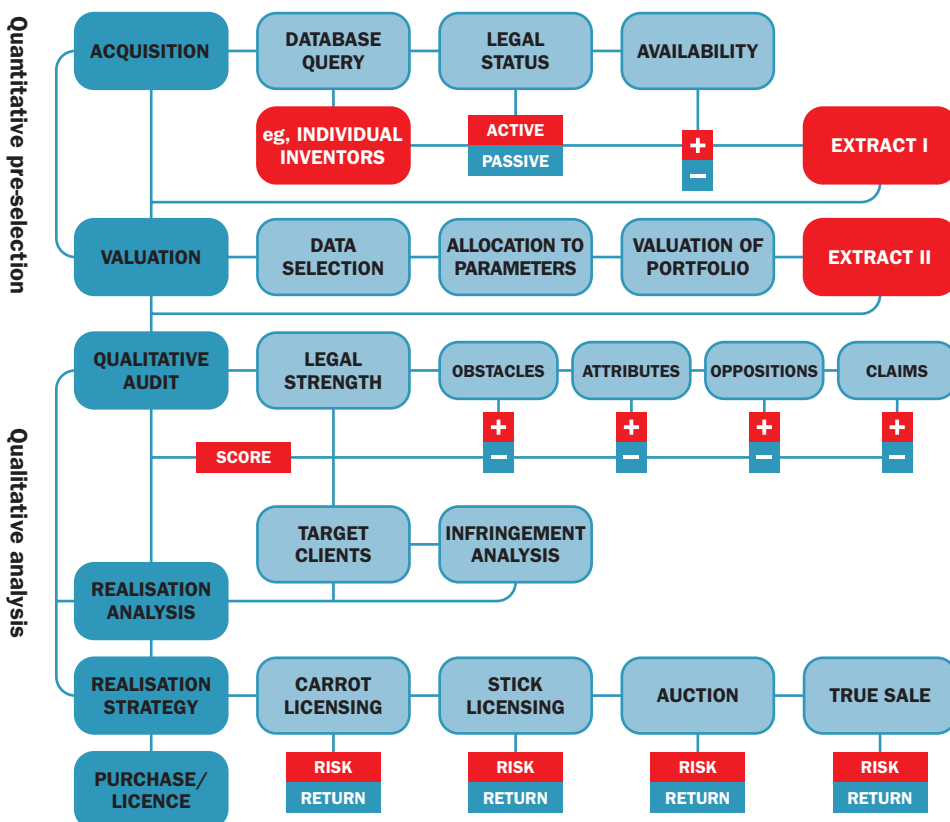
Once the portfolio has been identified, it is evaluated quantitatively using a specific scoring model based on IPB's valuation method and the theoretical bases of Harhoff and Reitzig. Depending on the business sector, certain thresholds must be met before the portfolio can be considered as efficient. Inefficient portfolios are discarded at this stage.

Following the quantitative pre-selection, 8% to 10% (the actual ratio is 9.3%) of the available patent portfolios will remain. A close

**Patent value funds**



Patent investment process



be identified actively and long-term decisions are required. The return profile is difficult to calculate because strategic uses might develop in ways that are not anticipated in the licence agreement.

- **Stick licensing.** If the portfolio has already been infringed, the potential licensee has already been identified. Licensing is more or less a legal act of negotiation. Most licences are settled outside court, as long as the infringement is indisputable and the patent is strong enough to endure the threat of litigation. The investment risks can be reduced to the anticipated legal fees. In most cases, the damages compensation and royalties can be calculated beforehand.
- **Auction.** The portfolio covers a basic technology which gives numerous competing companies access to the protected markets. In most cases, the licence can be split between several independent market sections, which multiplies the potential licensees. Auction offers the highest returns but is also very cost intensive, especially if several markets must be covered. It is limited to a few portfolios that show the characteristics of a basic technology which cannot be bypassed in the short term by the potential licensees. It must have maximum legal strength and the alternative of not accessing the markets should be hazardous for the potential licensees.
- **True sale.** The licensee will benefit strategically from buying the portfolio. In contrast to carrot licensing, a technical benefit is not required; strategic exclusion or economic aspects might be more significant. Unlike in classical licensing in general, the strategic use and benefit are already known at the time the price is calculated. The return profile is easy to calculate even though the upside potential is missing.

qualitative audit of these portfolios is then undertaken by specialist analysts. If required, the analysts will use the external expertise provided by organisations in IPB's network, which includes law firms such as Jones Day, White & Case and Freshfields Bruckhaus Deringer. Although the inventor is subjective, he is also a valuable source of information. Within the scope of the audit, an attribute analysis, a constancy analysis, a prior art analysis, a realisations analysis and an infringement analysis will all be performed.

Potential licensees are identified during the realisation and infringement analyses. The results inform the realisation strategy, which will fall into one of four main categories:

- **Carrot licensing.** The portfolio protects a technical novelty which has a strategic value for the target client: it will enable the potential licensee either to access new markets and compete with established market leaders or to streamline its own production and save on R&D expenditure. Carrot licensing is the most cost-intensive realisation strategy because the target clients must

The results of the intensive analysis are set out in a report which clearly outlines the chance-risk profile of each project.

The patent portfolios can be clustered into three risk categories. Patent portfolios which already have at least one licence agreement with a solvent licensee fall into the first risk category and are considered to be almost without risk. In the case of an exclusive licence agreement, the purchase is handled like pure factoring. If the licence is non-exclusive, further licences can be created and damages compensation can be

## A market approach to patent valuation

obtained. In most cases the licensor actively assists as a matter of self-interest.

The second risk category comprises patent portfolios which are already being infringed. The chances that a lawsuit will be decided in favour of the patent holder are high. In such cases, in Germany, the lawsuit often has a technical character only, with both parties knowing the outcome in advance, to some extent. In most such cases the action will be settled out of court to their mutual satisfaction.

Those patent portfolios clustered in the third category have no existing licence agreements and no infringement has been identified. These portfolios are still superior to classic venture capital investments, however: the investment period is usually shorter, the rate of turnover within 12 to 24 months is much higher and the investor faces no exit problems. In most cases the characteristic 'J curve' is flatter than for classic VC investments. The curve can further be kept flat through a suitable purchase design.

The contract details are negotiated during the purchasing period, balancing the interests of the patent holder and the investor. Experience has shown that a revenue split of 50:50 between the patent holder and the investor is most appropriate. The investor assumes all costs of realisation. For high-potential portfolios, upfront payments of up to 5% of the expected revenues have sometimes been negotiated.

### Patents – the real alternative investment

While international technology transfer markets continue to lack transparency, investors can gain surplus returns on their investments through PVFs. Assuming an average chance-risk profile, an investment of US\$100,000 can generate revenues of US\$500,000. Such attractive return rates should be sustained in the future, since the number of patent portfolios on offer is much greater than investor demand.

A further advantage of investing in patents is the marginal correlation between PVF revenue and other investment revenues such as stocks, bonds or real estate. Distinctive diversification effects can be achieved.

Perhaps this is one reason why Ross Perot has invested on a grand scale in this new asset class. ■

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Today, intangible assets comprise up to 80% of a company's value. Firms increasingly feel the need to utilise patent portfolios as assets – incorporating them into their accounting systems, using them as collateral for debt financing or simply trading and licensing them. However, it has traditionally been difficult to obtain cost-effective and reliable valuations of patents and patent portfolios.

IPB has developed a systematic method which combines the impartiality of classic market approaches with a quantitative process of data ascertainment. The theoretical basis of the method was set out in particular by Harhoff, Scherer and Vopel in *Citations, Family Size, Opposition and the Value of Patent Rights* (1999), and elaborated by Reitzig in *Die Bewertung von Patentrechten* (2002). Gambardella, Harhoff and Verspagen developed these conclusions in a recent European study entitled *PatVal-Project – The Value of Patents*.

The patents to be valued are assessed against historical and realised patent values. However, patents in themselves are unique and cannot be compared adequately. To ensure comparability, the patents are thus reduced to value indicators. The valuation focuses on the true and fair market value which would most probably be realised when offering the patent family or portfolio for sale or licence.

The method's core asset is a database of information on completed patent transactions around the world. Valuation correlations for the respective realised patent values are extracted from this database, reducing the patents to objectively measurable and comparable variables. By combining various variables which are significantly correlated with the patent value, either positively or negatively, a multivariate regression model is established. Depending on the quality of

the correlations and the size of the database, this model illustrates most of the variance of the patent values.

When valuing a patent family or patent portfolio, the relevant patent families are reduced to their descriptive variables. Thus, valuation using the market approach is a matter of looking not at the technical content of the patent itself, but rather at certain parameters which objectively determine the patent value. At least 20 such parameters may be ascertained from the patent's bibliographic data.

Model coefficients reflecting the flexibility of the patent value model parameters are then multiplied by the transformed value indicators to obtain the true and fair market value of each patent family.

The valuation is not a single price calculation. The result is a value distribution created by a computer simulation, in which the sensitivities for each indicator (betas) vary. A total of 10,000 cycles are used in the simulation. Effectively, the simulation replaces an expert survey with 10,000 experts.

One of the great advantages of this system is that 95% of the relevant data can be collected from public databases. This guarantees objectivity for the investor and strategic decision makers, as patent portfolios can be assessed without involving the patent owner. If you are seeking to negotiate a licence, searching for an interesting M&A target or deciding whether to invest in a company, this is useful information. The method was audited by KPMG in early 2004, and federal tax authorities now accept such valuations (eg, for purchase price allocations or transfer-pricing documentation).

See also: von Scheffer, Loop, Lipfert, From Patents to Finance, *Intellectual Asset Management* issue 10, February/March 2005, pp 37-39.