

Smaller IP owners seek better management and returns

Large businesses have grasped the need for IP management, but SMEs are only beginning to do so. **Alexander J Wurzer** and **Paul DiGiammarino** consider their particular demands

The need for IP management is a consequence of globalisation and the growth of the knowledge economy. Large-scale enterprises with worldwide operations have already adapted to changed realities and now small and medium-sized enterprises (SMEs) feel the need to capitalise on their IP assets. We describe the meaning of IP management for SMEs, identifying the specific service needs of such companies.

The importance of IP management for enterprises

Since the mid-1980s we have seen an unprecedented and great increase in IP activities worldwide. In the US, the negative trend of the 1970s and early 1980s was followed by a doubling of application filings by 1995. According to the latest WIPO report there was a worldwide increase in patent applications of almost 6% annually between 1995 and 2005. Patent activities have increased in China exponentially since the mid-1980s, reaching more than 210,000 applications in the year 2007 alone. A similar rapid development can be observed for trade marks. Since the introduction of the European Community trade mark (CTM) in 1994, more than 420,000 applications for CTMs have been filed. Between 2006 and 2007 alone the number of applications increased by 13%. Between 1987 and 2007 trade mark registrations at the USPTO have exploded by 463% to almost 400,000 new requests for trade mark registration in a single year.

The global interlocking of industries becomes apparent when looking at the number of registration requests for IP made by foreign applicants. The US constitutes the second biggest group of applicants for the European Community trade mark while about half of the patent applications in the US are filed by foreigners. In addition to this, there has been a decoupling of patent applications and R&D expenditures in OECD countries since the mid-1980s. In other words, the increase in applications is not only stronger but also more rapid than increasing expenditures for R&D. Developments in the IP world are accompanied by a shift in the relevance of economic values towards intangible resources as the most significant source for growth and competitiveness in the global economy. At the moment, 50% to 70% of GDP generated in the private sector stems from the appropriation of intangible assets. In 2000, the total volume of all licences worldwide was at around \$100 billion, the volume of patents granted in OECD countries is estimated to amount to \$97 billion to \$150 billion and the total value of all patents worldwide is estimated to have increased to between \$1 trillion and \$1.5 trillion. The overall share of intangibles, over various sectors of the economy, is estimated to be around 50% on average. The result is the introduction of new forces in global competition involving global innovation processes, new technology enterprises and international cooperation.

Those changes were felt first by multinational companies (MNCs). American MNCs such as Hewlett-Packard, Xerox, Dow Chemical, Texas Instruments and IBM led the way and were soon followed by European companies such as Philips, Scandia and Thomson. They developed various schemes and termed them intellectual capital management, intellectual asset management and intellectual property management. The earliest books summarizing those strategies and providing valuable insights for managers were *Rembrandts in the Attic* by Kevin G Rivette and David Kline and *Profiting from IC* by Patrick H Sullivan, published in the late 1990s.

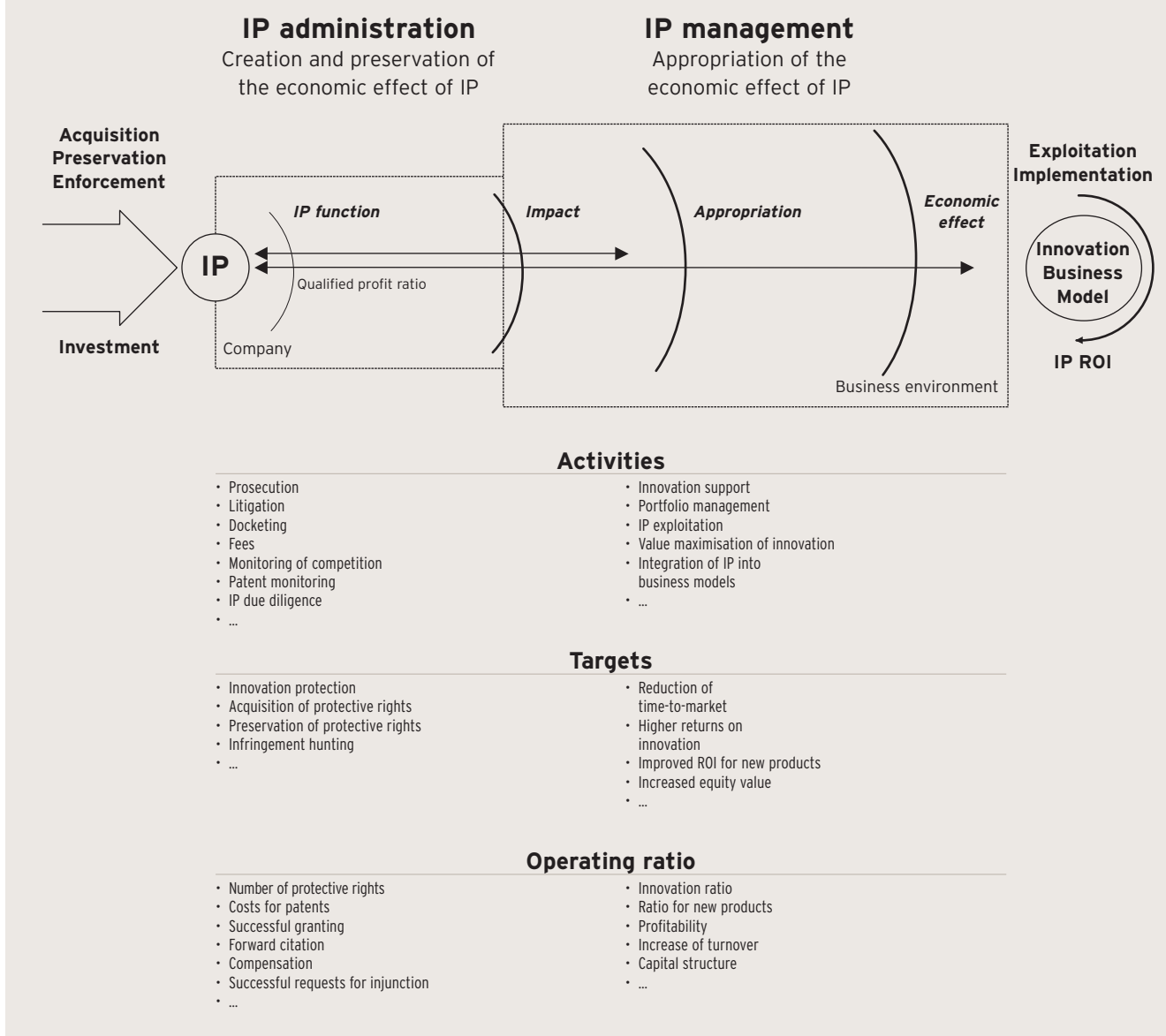
According to a study by PricewaterhouseCoopers, MNCs accept that IP assets are becoming more and more important. IP is increasingly recognized as a strategic asset, a valuable resource for the creation of economic benefits, rather than a mere legal tool.

One-minute read



Globalisation and the growth of a knowledge economy demand effective IP management in all businesses. Today, large multinationals increasingly see IP as a strategic asset, rather than merely a legal tool. Now SMEs are also seeing the need to better manage and exploit their IP assets. This involves not just administering the IP assets themselves, but also integrating IP into innovation strategies and business models by using both the legal and economic functions of intellectual property. IP management can be divided into three task clusters - innovation support, portfolio management and IP exploitation - which can be further divided into sub-tasks. In each of these, SMEs have different activities and expectations compared to multinationals, meaning that they require different means of support, and dedicated solutions.

Figure 1: The differences between IP administration and IP management



What is IP management?

Despite the fact that large-scale enterprises accept IP today as an asset, in the past only the legal aspects had played an important role and therefore IP administration is still frequently confused with IP management with no clear separation made. But the different fields entail different areas of activity and expertise, which are illustrated in figure 1. While IP administration predominantly deals with the IP asset itself (the acquisition, preservation and all legal aspects), the central task of IP management is the integration of IP into innovation strategies and business models.

Simply put, IP administration strives to enable the usage of the legal and economic functions of IP: the protection of an invention (patents), to exclusively identify and protect the commercial source of a product or service (trade marks), to block competition (IP rights), and to enable inventory stocks, licences etc. Those functions, if applicable (which is not always the case), may have an economic effect. For example, they prevent a competitor from offering similar functionality in its products. It is the task and responsibility of IP managers to appropriate those functions and the economic consequences

for the benefit of the company; in other words to make sure that the company actually can cash in on IP and its effects. As a rule, the economic benefit for the company is a cash flow (of some sort). Therefore, the target figures for IP management are key operational figures such as rate of return, profitability and turnover.

IP management can be divided into three activity clusters: innovation support, portfolio management and IP exploitation. The reasoning behind this division into three categories is that innovation processes constitute a fundamental source of intangible resources, that IP assets require a systematic management approach, and that the exploitation of IP assets has a more or less direct impact on a company's economic success. The three task clusters in turn can be subdivided into sub-tasks of IP management (figures 2 to 4)

R&D and innovation as basis for IP management in SMEs

SMEs can be differentiated by both the quantitative and the qualitative aspects of their business model. In Germany and the United States, SMEs typically have a headcount of less than 500 and a turnover of less than \$50 million. One char-

acteristic feature of SMEs is that business policy and decisions are made by the owner or the senior management team. The economic and social relevance of SMEs is enormous since they provide in the US and Europe alike almost 70% of all jobs and on a global level they represent 99% of all enterprises, generating worldwide around 40% to 50% of GDP.

But in spite of their economic importance, only around 20% to 30% of all patent applications come from SMEs. In Germany, which is by far the most patent active country in Europe, only 0.1% of SMEs even apply for patents, never mind practising IP management. But those SMEs who do apply are on average 50% more innovative than all the others – in fact less than 10% of all SMEs carry out in-house research as a basis for patent development. The situation is not all that better for trade marks. A study surveying family businesses in Germany shows that entrepreneurs do not attribute a particularly high relevance to the company's brand. However, the older and bigger the company, the more important they consider IP.

Nevertheless, SMEs are well aware of the importance of R&D and resulting innovations. It enables them to open up new product fields and markets, gives them a competitive edge in existing markets through differentiation as well as cost advantages. However, innovation is also the most critical business process because innovation is in general not properly understood or managed. Innovation needs to be incorporated into business activities, and the more radical an innovation is, the higher the need for a new business model.

Due to the close interlocking of actions and results concerning innovation, business model and IP management (see figure 1), a number of typical differences between MNCs and SMEs can be identified:

Resources

Compared to MNCs, the resources of SMEs are clearly limited in terms of skilled personnel, project management, know-how development, capital resources (needed for example for further innovation), and they have fewer possibilities to activate R&D on the balance sheet. Also, a short time-to-market is usually crucial for their business success.

Market access

SMEs have, compared to MNCs, restricted distribution channels and fewer capacities for marketing and advertisement (see resources).

Figure 2: Innovation support

Sub-tasks of innovation support	Keywords
Relevance of systematically analysing patent literature with a view to entering the market fast via target-oriented R&D	Target-orientated R&D
Relevance of systematically evaluating patenting chances to avoid double developments and to lower costs	Double developments
Relevance of analysing the competition to assess a company's position in the field of R&D	Competition analysis
Relevance of analysing the competition in terms of risk and cost in order to avoid patent infringements	Infringement avoidance
Relevance of buying patents or technologies from other companies for utilization internally	Patent acquisition

Figure 3: Portfolio management

Sub-tasks of portfolio management	Keywords
Relevance of deactivating and selling unused IP	Unused IP
Relevance of selling IP to increase liquidity	Selling IP
Relevance of strategically reducing the duration of a patent combined with an increased frequency of patent registration	Patent strategy
Relevance of portfolio structuring	Portfolio structuring

Figure 4: IP exploitation

Subtask of IP exploitation	Keywords
Relevance of evaluating property rights as an asset for rating, financing negotiations and analysis	IP evaluation
Relevance of activating IP on the company balance sheet	IP capitalisation (balance sheet)
Relevance of screening to establish whether IP may be used in other competitively neutral economic fields and its importance for liquidity	IP screening (other usages)
Relevance of taking action against infringements to increase liquidity	Infringement hunting (liquidity)
Relevance of the strategic use of IP for securing a company's competitive position	Strategic use of IP

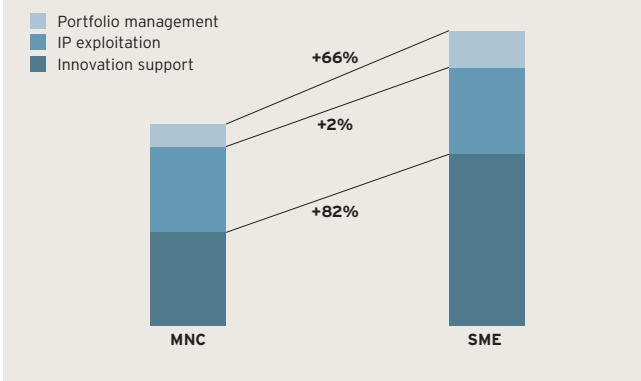
Complexity

For MNCs it is a lot easier to find suitable partners for a cooperation; to maintain technology complexity is rather challenging for SMEs and they depend on the collaboration with service providers (see resources).

Decision-making qualities

One big advantage SMEs have over MNCs is their ability to

Figure 5: Differences in the future relevance for each task cluster of IP management



make quick decisions. Hence, they are for example much quicker and consistent in mobilizing resources.

SMEs have different expectations from IP management

In 2006, the Centre d’Etudes Internationales de la Propriété Industrielle (CEIPI) in Strasbourg conducted a survey among 370 patent attorneys employed in companies on the relevance of the different sub-tasks of IP management. The findings indicate clear differences between MNCs and SMEs. Companies logging more than 1,000 patent applications per year and with 50 employees in their IP department or 1,000 employees in R&D were classified as MNCs. Overall, 169 companies were classified as MNCs and 201 as SMEs. The participants of the survey were asked to state the future relevance of the different task clusters of IP management, and here as well a clear difference between SMEs and MNCs is evident (see figure 5).

The findings show that MNCs and SMEs rate IP exploitation similarly importantly. But the opposite applies for portfolio management and innovation support. SMEs estimate the future relevance of both clusters much higher. The overall picture shows that both SMEs and MNCs rate innovation support as most important, followed by IP exploitation and portfolio management as the least important activity cluster in the future.

From this it follows that SMEs need support from service providers, taking their distinctive character into consideration, in particular their limited resources.

SMEs need different IP management support

From this data, we can identify the particular needs of SMEs. Two of the main differences between SMEs and MNCs play a central role: the availability of resources and the ability to make quick strategic decisions. In regard to resources, IP management services for SMEs should be aimed at saving the company’s resources or making extra resources available. Also, in order to take full advantage of their decision-making power, SMEs have to be provided with valid data on their overall business and strategic IP situation. This refers above all to innovation and the company’s business model.

- Services offered to SMEs should involve five fields:
- Patent acquisition: identification of relevant IP; assessment of purchase price.
- Selling IP: search and analysis of buyers; assessment of selling price.
- IP capitalisation (balance sheet): balance sheet valuation of IP, value optimisation of IP.
- Infringement hunting: identification of illicit use by third parties.
- Strategic use of IP: strategy analysis and strategy recommendations.

SMEs also need IP management tools to help them manage the three key task clusters.

For innovation support, they need tools that make it easy for R&D and engineering teams to communicate their ideas and inventions. They need simple yet flexible patent review workflows that can accommodate the procedures they have in place today. They need to be able to measure and track IP inputs so they can channel innovation activity to match future business priorities.

For portfolio management, they need a database of IP assets that goes beyond IP administration needs for legal status information. They need to be able to organise their assets by technology, product lines, business units and corporate strategy. They need online query capabilities and reports to support a dialogue with their internal business clients that puts IP in a business context for executive decision making.

For IP exploitation, they need a database that clearly identifies the current contribution of an IP asset to the mainstream business. Is it being used effectively? If not, are there licensing or other strategies that can provide a better return on the IP investment? Some SMEs may have sufficient activity to benefit from a licence management system integrated with their IP management.

In recent years extensive and highly efficient software solutions have been developed for IP administration, and some of them already have an integrated approach for IP management. But the differences between MNCs and SMEs are so extensive that one-size-fits-all software solutions would be essentially wrong. Rather, solutions are needed that can be adapted to the specific needs and circumstances of SMEs. There are only a few solutions on the market today that cater for the specific needs of SMEs, but a market for such solutions is now emerging. Because of the vast number of SMEs, and the fact that they are starting to realise the importance of IP management, we see a great opportunity for innovative software solutions.

Need for software-based solution

The expectations, needs and perception of IP management from SMEs and MNCs are clearly different. Based on empirical data, these differences concerning resources and decision-making power are critical. SMEs need above all help with patent acquisition, selling IP, activating IP and infringement hunting, as well as with the strategic exploitation of IP. A software-based IP management solution taking the specific requirements of SMEs into account would be a highly efficient tool for the provision of services for SMEs.



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