



Licensing in the Boardroom 2007

The corporate quest for patent quality
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The corporate quest for patent quality

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Patent quality is garnering significant attention these days, right across the globe. Much of this attention is currently focused on proposed legislative reforms in the US and Europe to reduce the number of poor-quality patents being used for licensing and litigation purposes. It is litigation abuses, particularly from non-practising entities (NPEs), that are jeopardising continued technology innovation and associated business value creation. With legislative reform on the horizon, many organisations, regardless of their commercialisation model, are taking proactive steps to improve the quality of their patent portfolio by developing in-house capabilities and business processes. The intent of these activities is to drive the return on the company's patent assets in terms of market protection, licensing revenue and strategic positioning.

To put this in perspective, conventional wisdom is that only 5% of a company's patents truly drive value within the organisation. A company that is looking to improve its patent position is faced with two alternatives: increase the number of patent filings and play the numbers game; or increase the percentage of patents generating value. Historically, most companies have taken the first option, resulting in a patent arms race in many fields and huge patent thickets surrounding many products. However, as noted above, an increasing number of companies are taking the latter option as the preferred path towards sustained competitive differentiation.

And it's not just company management that needs to be concerned with patent quality. The company's clients, employees, investors and other stakeholders also face

significant opportunities, and risks, related to the relative strength of the company's patent position, and its impact on the bottom line. The recent *RIM/NTP* case and the surrounding uncertainty for company stakeholders prior to settlement, highlights this reality.

Establish a baseline for your patent quality initiative

So, how do you implement a patent quality programme? Arguably more important, how will you know when you are successful? Semiconductor Insights advises its clients to establish a baseline of the current state of their patent portfolio as the first step. This involves sorting the portfolio into relevant technology and market categories, and then putting the patents in these areas into context with respect to competitors, customers and other players in the field. This is done through a further assessment of the patents in each category that can reveal the strengths and weaknesses of individual patents in terms of claim coverage, technology strength, validity, commercial merit and ability to detect infringement, or other metrics judged to be important by your organisation.

With this data in hand, analysis in a number of key areas will identify the strengths and vulnerabilities within the portfolio, and allow decision makers to prioritise necessary actions including:

- Alignment of the portfolio with the strategic direction of the business.
- Geographic coverage.
- Coverage across key current and future markets.
- Support for licensing programmes.

This analysis will also allow management to measure the success of the patent quality initiative in future, as key metrics will have been established and a baseline set at the start of the programme.

Improve patent quality through targeted actions

Based on Semiconductor Insights' experience, organisations can improve patent quality in three ways, each of which can be performed independently or in combination.

Review and improvement

Have an independent individual or team (not the inventor or lead patent attorney) critique applications and newly issued patents in areas that are of strategic importance. This critique should include suggestions to improve the patent, if possible. For example, suggest changes to claim language that would make the use of the claimed invention detectable in a product; highlight industry trends relevant to the invention that should be addressed in the patent; and identify relevant art that should be addressed to strengthen the validity position.

Strategic patenting

Rather than driving the patent process up from the engineers and scientists, drive the process with the end point in mind. Know how the patents will be used (to protect a market, to license assertively, etc) and attempt to predict the types of technology that will be important in these areas in five to 10 years. Search out related technology from the research and development or design teams and patent aggressively.

Patent acquisition

A classic make versus buy decision. Patents being filed today will take two to five years to issue. This makes improving patent quality a long-term exercise, unless quality third-party patents can be acquired in the areas of need. Developing relationships with organisations actively selling patents (both patent owners and the brokers they employ) is a key first step. It is important to be on the radar with these organisations. A more proactive approach is also possible. This involves searching for patents of interest, approaching the owners and negotiating a purchase of the patent assets. It is crucial to understand that the patent marketplace is not mature and that there are a number of inefficiencies that need to be addressed by an acquisition programme. Many organisations actively selling patents are not offering their best assets for sale – the patents may involve a niche technology, be poorly written or be encumbered by licences or other complications. An acquisition programme needs an effective qualification

process to separate the wheat from the chaff. A buyer looking to strengthen its portfolio in a specific area also needs to be concerned with anonymity so as not to reveal any vulnerability to competitors. This can be dealt with through the use of buyer agents and other practices.

Improve patent quality through business process

While targeted actions will help yield patent quality improvements, for on going results the best strategy is to integrate patent quality into business processes. For example, there should be a feedback loop from the organisation's licensing department to the patent prosecution teams. The licensing staff can provide invaluable input on the status of the industry, the usefulness of the current patent portfolio and future requirements to support the licensing programme.

Another best practice is to conduct research into the state of the patent landscape in technical areas of interest. This means searching for patents in a particular field and mapping out the ownership of that field in comparison to one's own position. This will identify available space that can be claimed as part of the strategic patenting efforts mentioned earlier. It provides several other advantages as well. It provides competitive context to your patenting efforts by revealing trends in technical and geographic coverage being protected by other organisations. It is also possible to identify alternative applications and markets for your technology by recognising players in these fields patenting similar technology.

Another benefit of patent landscape surveys is that they provide a strong understanding of the art in a particular field. This can be used as prior art references when crafting patents in this area. Your organisation will not only be able to identify developments that truly improve on the art, but will also be well positioned to articulate these improvements as part of your patent filings.

Some may think that this type of activity would be limited to large organisations with tens of thousands of patents. Large organisations of this type are definitely interested in improving the quality of their patents. The percentages are in their favour in doing so. As mentioned earlier, it is traditionally held that only 5% of an organisation's patents drive value. Increasing this number to 10% would add hundreds of patents creating tangible business value to an organisation of this size. That said, it is smaller organisations

Case study: mobile handset market

with small budgets that see the most impact from this type of activity. These organisations may have portfolios consisting of fewer than 100 patents and may be filing only five to 10 patents per year. It is vital for these organisations to ensure a large percentage of their patents provide impact to their business.

There are certain points on a continuum of patent portfolios of increasing sizes where patent quality should become a focal point for an organisation. Two of them are mentioned above. Another comes at a point determined not by an absolute number of patents, but by a relative comparison of portfolio size to competitors in a market or business area. If the companies in a particular space have reached an equilibrium point in terms of numbers of patents, it is hard to achieve competitive differentiation through the use of one's patent portfolio. However, a patent quality initiative could swing the balance in the favour of the proactive organisation.

Based on Semiconductor Insights' experience, the mobile handset market provides a good example of how a patent quality programme can be implemented. Nokia, Samsung, Sony-Ericsson, Motorola and LG dominate this market. Each of these companies has a significant patent portfolio ranging from 5,000 to 25,000 patents. The disparity in portfolio size is due to the variety of technology spaces outside of mobile telephony addressed by some of these companies.

A patent quality program in one of these companies would require the following steps:

- Map the portfolio across relevant technology and market categories. Technology convergence has added to the complexity of this exercise. In addition to telephony technology, today's handsets have imaging, multimedia, computing and gaming functionality. A theoretical taxonomy might be structured along the following lines. A real taxonomy would be much more granular as the patent groupings need to be fine enough (50-200 patents) to allow for effective filtering and assessment:
 - 1 Technology – *telephony* (air interface processing and algorithms – eg, UMTS, GSM, CDMA; RF transceiver; RF amplifier and switches; antenna; power management; multimedia; audio processing; video processing; gaming; GPS); *computing and connectivity* (internet access; operating systems; business software; Bluetooth, 802.11, 802.16; USB) and *displays*.
 - 2 Market – *entry level handsets; smart phones; multimedia handsets; and enterprise systems*.
 - 3 Geography – *China; Japan; SE Asia; Europe; and North America*.
- Assess the patents in each area to identify areas of strength and weakness. This assessment should identify priority areas for attention. As mentioned earlier,

it is important that these areas be aligned with the strategic direction of the business. As well, you need to consider non-competing entities that have a stake in the market, such as key developers and suppliers of IP and components in these areas. For the sake of this example, we will assume that multimedia technology and the multimedia handset market have been identified as an area of strategic importance.

- Survey the patent landscape related to multimedia handsets and relevant technology. This survey will reveal the key players holding patents in this field and map out the coverage offered by these patents. This will reveal white space available to the organisation.
- Establish a strategic patenting team of technologists and patent attorneys. Utilise the information from the assessment of the portfolio, the strategic direction of the business and the white space in the patent landscape to identify concepts to patent. Search out related technology within research and design groups to enable this effort.
- Qualify patent holders identified from the landscape interested in selling multimedia patents. Establish a patent acquisition programme to acquire key patents from interested parties.
- Establish a patent review team of technologists and patent attorneys to review key patents being filed in the area of multimedia technology. This team should act as a quality control mechanism to ensure all patents in this area meet the standards discussed earlier.

With these processes and teams in place, the handset player will be enabled to increase dramatically the quality and, therefore, the impact of its patents in key areas. This could help tip the competitive balance in its favour in terms of market protection, licensing revenue and strategic position for the future.



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