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Ascending the Intellectual Property Management Pyramid

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ASCENDING THE INTELLECTUAL PROPERTY MANAGEMENT PYRAMID

HARRY J. GWINELL† AND KATHERINE S. BOYLE‡

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I. INTRODUCTION

A. The Importance of a Long-Term Intellectual Property Strategy

In the past decade, the importance of intellectual assets to businesses has increased significantly. The term “intellectual assets” refers to many different types of intangible knowledge that provide a competitive advantage. Intellectual assets include everything from brand names, creative works, and engineering designs to license agreements, customer lists, and technical know-how. Intellectual property (IP) is a subset of intellectual assets. IP rights refer to intangible knowledge that is afforded legal protection, notably, patents, trademarks, copyright, and trade secrets. Some companies have harnessed their existing intellectual assets in creative ways to extract value, while others have transformed their company culture to embrace innovation in pursuit of an expanded IP portfolio.

A strong IP management strategy can be a tool for both risk management and value creation. However, no single IP management strategy works for every company. This article suggests that there are certain steps that are essential to

2 WESTON ANSON, IP VALUATION AND MANAGEMENT 130 (2010).
3 Id.
4 Id.
8 JOHN PALFREY, INTELLECTUAL PROPERTY STRATEGY 30 (2012).
9 SUZANNE S. HARRISON & PATRICK H. SULLIVAN, EDISON IN THE BOARDROOM REVISITED 80 (2d ed. 2011).
implementing a long-term IP management strategy, regardless of a company’s situation. These steps include putting people and systems in place to support the strategy, integrating the IP management strategy with business strategy, extracting value from the company’s IP portfolio, and seeking opportunities to harness the company’s IP in unconventional ways.

This article provides an overview of best practices in developing an IP management strategy, along with specific ways to implement such strategy. This article first introduces the IP pyramid, which is a concept used by the author to represent different stages that a company goes through as it develops its IP management strategy. The pyramid’s levels represent the one-year, three-year, five-year, and ten-year stages of development. Next, this article makes recommendations for what a company should aspire to accomplish at each level of the IP pyramid. This article also provides at least one example of an IP strategy implemented by a company at the one-year, three-year, five-year, and ten-year stages of development.

B. The Intellectual Property Management Pyramid

The different stages of implementing an IP management strategy can be envisioned as a pyramid, as shown in Figure 1.11
In the author’s experience, companies that develop strong IP portfolios each follow a common path. A company wishing to ascend the IP management pyramid must start by building a strong foundation of IP protection. This process can begin in the one-year timeline presented in this article. After building the IP foundation, the company can ascend to the next level of the pyramid, in which the IP management strategy is integrated with business strategy. A company can typically reach this level in the three-year timeline. After integration, the next levels of the IP management pyramid are value creation, first through cost control, then through income generation. The goal is to see this value creation in the five-year timeline. Finally, a company that ascends to the top of the IP management pyramid achieves the status of visionary. Companies at this level use their IP portfolios in unconventional ways to create value. A company may aspire to reach this level of the pyramid in the ten-year timeline.

12 Id. at 56.
C. Below the Intellectual Property Management Pyramid: Value Destruction

The absence of a meaningful IP management strategy does not have a neutral impact on a company. The lack of patent, copyright, trademark, trade secret, and other protections can actually destroy the value of the company’s intellectual assets. One situation in which the lack of IP protection can be value-destroying is where the company’s innovation is setting the standards in an industry. The value of a company’s IP is destroyed when its competitors are allowed to use the company's IP without compensation.

D. An Example of Value Destruction

The following example, inspired by the author’s own experience, demonstrates how a business can destroy the value of its IP by failing to protect its innovations.

A company discovered an improved way to transport fruit juice from Latin America to Europe. The improvement reduced the time and labor required, allowing the company to transport more juice in less time and at a reduced cost. The fruit juice company did not secure IP rights in the improved shipping system, and the company’s competitors soon began to copy it. These competitors were free to use the system without compensating the company because of the lack of IP protection. This destroyed any competitive advantage that the innovation could have provided the company. If the fruit juice company had an IP management strategy in place to protect the innovation, the company could have excluded its competitors from using the improved system or required the competitors to pay a royalty fee.

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13 Id. at 167.
14 Id. at 167–69.
15 Id.
E. Creating an Intellectual Property Management Strategy

The aim of any IP management strategy must first be to reverse the type of value destruction caused by lack of IP protection. Although no two companies will have identical IP management strategies, there are certain elements that are essential to creating a successful IP management strategy. The recommendations that follow can be used to focus a company’s efforts when implementing an IP management strategy.

II. THE ONE-YEAR TIMELINE: BUILDING THE INTELLECTUAL PROPERTY FOUNDATION

At the beginning of the first year of implementing a new IP management strategy, a company may or may not have secured IP protection such as patents, trademarks, copyrights, and documented trade secrets. No matter what the company’s current situation, the primary focus in the first year should be building the foundation of the IP management pyramid by putting systems and people in place to track and manage the company’s intellectual assets.

A. Putting Systems into Place

The systems put into place in the first year will be used to capture the company’s intellectual assets in a tangible form, mainly as documents or electronic records. For companies with sizeable IP portfolios, information technology (IT) systems such as software or databases will be required. These systems will be used when

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16 Id. at 170.
identifying which intellectual assets will benefit most from protection.20

1. Identify the Core Business

An IP management strategy will only be successful in the long-term if the increase in profitability of the company outweighs the time and financial resources expended on obtaining IP protection.21 In the one-year timeline, the company should focus on defining its core businesses, which are the products and services that directly create profit for the company.22 Once the core businesses are identified, the company can develop its IP strategy to maximize the profits of those core businesses.

One way to define the core business is to identify what differentiates the company from its competitors.23 A company that relies heavily on marketing its brand name may choose to focus on strong trademark protection.24 Another way to define the core business is to identify the key technology or know-how that gives the company its competitive advantage.25 For example, a manufacturer that relies on a particular improved manufacturing method may choose to focus on patent or trade secret protection.

23 Id. at 210.
25 HARRISON & SULLIVAN, supra note 9, at 56–57.
2. Identify Existing Intellectual Assets

Nearly every business organization has an IP portfolio, whether it realizes it or not. Thus, one vital step in the first year of building an IP portfolio is to identify the company’s existing intellectual assets. Identifying the company’s registered IP, such as patents, registered trademarks, and registered copyrights will likely be straightforward. However, a search to identify all of a company’s intellectual assets could take an enormous amount of time and money. By first identifying its core businesses, the company can narrow its focus in the search for existing intellectual assets. This prevents time and money from being wasted on identifying intellectual assets that are not essential to protect.

Another way to decrease the time and money required to identify existing intellectual assets is to create a standardized process for intellectual asset disclosures. In particular, invention disclosure forms should be standardized. This will simplify the effort to identify inventions that are both related to the core business and deserve legal protection. The use of standardized forms also makes it more likely that the invention will be fully disclosed.

26 PALFREY, supra note 8, at 11.
27 HARRISON & SULLIVAN, supra note 9, at 56–57.
29 MANTON, supra note 5, at 53–54.
31 Id.
33 Id. at 787.
34 Id. at 779.
3. Choosing the Technology Infrastructure

A knowledge management system should be put in place as early as possible to ensure that activities associated with the protection and use of the company's IP can be managed systematically. In most cases, the company will need to create or buy IP management systems such as software or databases in which to manage the IP portfolio. Invention disclosures should be recorded and catalogued in the knowledge management system. The system should also be equipped to track the patents, trademarks, copyrights, trade secrets, and IP licensing agreements associated with the company’s core business. The ability to access all IP in one IT system will improve efficiency as the company’s IP portfolio grows.

B. Putting People Into Place

1. The Intellectual Property Champion

The new IP management strategy must have a champion within the company. The IP champion is an individual, preferably within the executive team, who is willing to provide leadership for the IP management strategy. Most business executives appreciate that IP is important at some level. These executives must be willing to provide continued support and resources as the company moves up the IP management pyramid. The IP champion must be an advocate throughout the various stages of implementation.

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35 Hale, supra note 19.
36 Id.
37 See id. at 139.
38 Id. at 132–33.
39 PHELPS & KLINE, supra note 6, at 146–47.
40 See, e.g., ARENA & CARRERAS, supra note 22, at 181.
42 See, e.g., ARENA & CARRERAS, supra note 22, at 181.
43 PHELPS & KLINE, supra note 6, at 146–47.
2. Employees and Inventors

The company must put together a plan to educate its inventors and innovators in the business processes related to the IP management strategy. These employees must understand that the company’s intellectual assets hold great value for the company. Employee training should be ongoing and continuous, but it is especially important to train incoming employees during new employee orientation.

3. Marketing Employees

Employees in the marketing department deserve special mention. Because the marketing team may have a better understanding of the company’s customers than other employees, the marketing team can suggest improvements to current products. The marketing team can also be involved in deciding whether the company would benefit from market exclusivity on a particular technology. Marketing employees can provide invaluable feedback on current and future market needs, and therefore should be involved in the IP management strategy.

C. Challenges in the One-Year Timeline

1. The Challenge of Limited Resources

The costs associated with implementing an IP management strategy can be substantial. Significant challenges include the limited availability of time, money, and human resources. Creating

44 McGee, supra note 32, at 780.
45 See generally id.
46 Id.
48 See id.
49 Id.
51 See id.
or purchasing knowledge management systems can be expensive.\textsuperscript{52} In many cases the company will choose to hire employees to support the IP management strategy, which adds another layer of cost. Finally, and most visibly, the costs associated with patenting will be considerable when building the IP foundation.\textsuperscript{53} Prosecuting a patent application through to issuance can cost tens of thousands of dollars,\textsuperscript{54} while patent enforcement litigation can cost millions of dollars.\textsuperscript{55}

Clearly, the financial risks of beginning the ascent up the IP management pyramid are high. The best way to overcome these financial challenges in the first year is to focus on the company’s existing products and services.\textsuperscript{56} By first identifying the core business, the company can make the most of its investment in the one-year timeline and beyond.\textsuperscript{57} It is important for the company not to lose sight of the fact that obtaining IP protection is an investment in the company’s future.\textsuperscript{58}

2. The Challenge of Getting Managers and Executives on Board

In many cases, company executives and business managers do not have a good understanding of IP management.\textsuperscript{59} Initially, these

\textsuperscript{52} See id.

\textsuperscript{53} AM. INTELL. PROP. LAW ASS’N, REPORT OF THE ECONOMIC SURVEY 2013, at I-108 to -09 (2013) (displaying tables showing that preparing and filing a single patent application in the United States costs an average of $7000 to $11,000 or more).

\textsuperscript{54} See generally id.


\textsuperscript{56} See HARRISON & SULLIVAN, supra note 9, at 74–76.

\textsuperscript{57} Id.


\textsuperscript{59} PALFREY, supra note 8, at 2.
individuals may be interested in using the company’s IP portfolio to manage and mitigate risk.\(^{60}\) However, the expense of innovation itself may be seen as a risk.\(^{61}\) Without the support of top management, there is a high risk that the IP management strategy will fail.\(^{62}\)

The task of bringing the company’s executives and business managers on board goes to the IP champion.\(^{63}\) A compelling business story will aid the IP champion in this regard.\(^{64}\) It is critical that individuals at the top level of the company understand that the IP strategy will benefit the company’s bottom line.\(^{65}\) Executives can be motivated to make wise IP management decisions if information is communicated to them in language that they understand.\(^{66}\) Presenting the information in the context of the broader business strategy will improve the likelihood of successful communication.\(^{67}\)

**D. The One-year Strategy in Action: Separating Product from Know-How**

The following example, inspired by the author’s own experience, demonstrates how a company can immediately profit from performing an inventory of its intellectual assets even if the company does not have patents or other formal legal protection.

An animal feed company sold its feed material at a premium price over its competitors because the company bundled the sale of the product with the know-how for using the product. This proprietary know-how was a result of the company’s research and

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\(^{60}\) ARENA & CARRERAS, supra note 22, at 299.

\(^{61}\) See, e.g., ARENA & CARRERAS, supra note 22, at 108–09.

\(^{62}\) GIBBS & DEMATTEIS, supra note 47, at 196.

\(^{63}\) See HARRISON & SULLIVAN, supra note 9, at 30.


\(^{65}\) Oriel, supra note 21, at 92.

\(^{66}\) See id. at 91–92.

\(^{67}\) Id.
development (R&D) efforts, which were very costly. Unfortunately, the product was not patent protected and the company’s competitors were able to undercut the product price. To combat this, the company decided to unbundle its sales. The company was able to meet its competitor’s product prices while still extracting value from its R&D efforts by charging a separate fee for the valuable know-how to use the product.

III. THE THREE-YEAR TIMELINE: INTEGRATION WITH BUSINESS STRATEGY

In some ways, the primary focus of the three-year timeline is to continue the successful implementation of the systems put into place in the first year. However, whereas the first year focuses on building the foundation of the IP management pyramid, the three-year timeline focuses on moving up the pyramid by integrating the IP management strategy with the company’s overall business strategy. At this level of the IP management pyramid the company makes a deliberate effort to expand its IP portfolio by further protecting the IP related to its innovations. This allows the company to secure its competitive position.

A. Integrating Intellectual Property Strategy and Business Strategy

IP has been described as both a sword and a shield to be used to defend a company’s position in the marketplace. In some industries, a company without an IP portfolio may not only find itself at a disadvantage, but it may also find that a competitor’s IP portfolio is so extensive that it is virtually impossible to enter or remain in the market without stepping into a minefield of protected IP. In the business integration level of the IP pyramid, the company begins to incorporate its IP strategy into its business strategy to avoid this type of situation.

68 PALFREY, supra note 8, at 2.
69 John Murphy, Toyota Builds Thicket of Patents Around Hybrid to Block Competitors, WALL ST. J. (July 1, 2009), http://online.wsj.com/news/articles/SB124640553503576637.
1. Patent Mapping

One essential analytical tool for IP management is patent mapping.\(^70\) A patent map compares products and technologies to patent claims, often in a visual format.\(^71\) Patent maps can be used in many different ways to achieve a better understanding of a company’s own patents and products, as well as competitor patents and products.\(^72\)

A chart mapping the company’s existing patents against the company’s products can show how the company is currently using its limited resources to protect its products.\(^73\) A patent map may show that the company could have more or less patent protection for a particular aspect of its business.\(^74\) The result of the patent mapping process is increased IP management efficiency and better patent protection.\(^75\) Depending on the size of the company’s patent portfolio, this can be a sizable undertaking. For example, in the author’s experience, a company that had a patent portfolio of approximately 2000 active patents took two years to complete the patent mapping process.

2. Tracking Competitors

Patent maps should also be used during due diligence to determine risk exposure.\(^76\) The company should first map its competitors’ products against its own patents to determine whether its patents are being infringed.\(^77\) The company should also map its products against competitors’ patents to determine whether it may


\(^71\) Harrison & Rivette, supra note 41, at 122.

\(^72\) Id. at 123.

\(^73\) Id. at 122.

\(^74\) Id. at 127.

\(^75\) Id. at 124–27.


\(^77\) Id.
be infringing others’ patents. This information can be used to make decisions about whether to enter or remain a particular field.

3. Brainstorming to Protect Intellectual Property

Patent minefields are a danger inherent in developing new products in the three-year timeline. If other players in the market have very strong patent portfolios, the company may not be able to compete. The author recommends that in the business integration level of the IP management pyramid, the company’s R&D group should begin brainstorming to reveal inventions related to but outside of the company’s core business. Obtaining patent protection in these areas is not intended to be used for commercialization; instead, these patents can be used like poker chips to play the IP game. The patents can be blocking patents, intended to prevent another player from gaining market exclusivity on a technology.

Specifically, as shown in Figure 2, it is useful to brainstorm inventive ideas going both backwards and forwards in the chain of producing, manufacturing, and selling a particular product.

![Figure 2: Brainstorming backwards and forwards](image)

Looking backward in the manufacturing chain from the company’s product, the R&D group should consider obtaining protection on the process for making the product, as well as the raw materials.

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78 Id.
79 Id.
80 See Murphy, supra note 69.
82 Id.
materials used in the process. Looking even further back in the manufacturing chain, the group should consider obtaining protection on the processes used on the raw materials. Looking forward, the group can consider securing protection on the end uses for the product. In some circumstances, securing these patent rights can be essential to the company’s ability to profit in a given market.\footnote{See, e.g., HARRISON & SULLIVAN, supra note 9, at 56–70.}

\section*{B. Adding Employees to Support Intellectual Property Management}

1. Paralegals and Other Support Staff

In the three-year timeline, the addition of strong support staff is critical to cost-effective execution of the IP management strategy.\footnote{See Susan Mae McCabe, \textit{A Brief History Of The Paralegal Profession}, 86 Mich. B.J. 18, 19 (2007).} Paralegals and administrative assistants can increase the efficiency of the IP management strategy by performing many of the tasks necessary to carry it out.\footnote{R. Thomas Howell Jr. & Eric G. Orlinsky, \textit{What Paralegals Can Do}, AMERICAN BAR ASS’N (Jan.-Feb. 2007), available at http://apps.americanbar.org/buslaw/blt/2007-01-02/orlinsky.shtml.} An experienced IP paralegal can assist by filing patent applications, performing prior art searches, administering the knowledge management software, drafting documents for attorney review, and assisting with IP due diligence.\footnote{Id.}

2. Intellectual Property Managers

As the company’s IP management strategy matures, one or more IP managers may be added to the company’s staff.\footnote{See Joseph J. Daniele, \textit{The Intellectual Asset Manager, in PROFITING FROM INTELLECTUAL CAPITAL: EXTRACTING VALUE FROM INNOVATION} 186, 192 (Patrick H. Sullivan ed., 1998).} The IP manager’s role is to oversee the execution of the IP management strategy.\footnote{See id. at 192–93.} The IP manager is typically placed directly into a
business unit and reports to the IP leadership. This individual will monitor the IP associated with the business unit’s products, acquire invention disclosures, monitor competitors for infringement, manage value extraction functions such as licensing, and perform other duties related to the IP management strategy.

3. Intellectual Property Review Teams

In order to truly integrate IP strategy with business strategy, employees in the business, technical, and legal departments need to be brought together to make decisions about the management of the company’s IP. An IP review team is ideally made up of employees from different functions within the company, including management, R&D, legal, and marketing. It is useful to have a range of different perspectives when making strategic IP decisions. The IP review team should meet on a regular basis to consider outstanding IP items impacting the business. The duties of the IP review team include, but are not limited to, developing IP business processes, establishing measurable goals, and educating employees about IP issues.

One task that the IP review team should complete as soon as possible is creating a standard policy for obtaining patent protection for particular products or business units. This policy should define the goals of patent filing so that the IP review team does not need to approve every single invention disclosure to be filed as a patent application.

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89 Id. at 201.
90 See id. at 191–92.
91 See Fox, supra note 30, at 148.
92 See DOBRUSIN & KRASNOW, supra note 18, at 69.
93 Id.
94 Id. at 70.
95 Id. at 69–70.
96 BRYER ET AL., supra note 17, at 115.
97 Id.
The author recommends translating this policy into a filing matrix, which is a tool to make patent filing decisions automatic. A filing matrix associates a particular product or business unit with the type of IP protection that should be sought for inventions related to that product or business unit. For example, the IP review team may decide that patent applications for inventions related to a particular product line should always be filed in a particular geographic region. The filing matrix can also specify standard procedures for maintaining patents within the patent portfolio, such as the policy on payment of maintenance fees.

C. Challenges in the Three-Year Timeline

1. The Challenge of Managing Human Resources

Finding employees with the right qualifications and experience is critical to the successful implementation in the three-year timeline. Ideally, the company would employ managers who understand law and attorneys who understand business. Finding qualified individuals with the requisite business, legal, communication, and interpersonal skills can be a challenge. In addition, as employees have become increasingly mobile in the workforce, it has become critical to document employee knowledge so that this knowledge becomes part of the company’s intellectual assets. If information such as trade secrets and know-how are not identified and documented, this information walks out the door when the employee leaves or retires.

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98 See id. at 114.
100 MANTON, supra note 5, at 120.
101 See McGee, supra note 32, at 780.
i. Human Resources Department as a Gatekeeper

Employees in the human resources department can be instrumental in implementing the IP management strategy. The human resources department can serve as a gatekeeper for both incoming and outgoing employees.103 This is especially important for protection of confidential information and trade secrets.104 Documents for new employees should clearly state the company’s trade secret policies so that the new employees do not import trade secrets from former employers.105 The human resources department should conduct exit interviews with all employees leaving the company so that the outgoing employees understand their secrecy obligations.106 Employees leaving the company should be made aware that all intellectual assets known to the employee must go to the employer.107 The human resources department is uniquely able to manage the signing of these documents.108

2. Metrics

i. Quantitative Metrics

Another challenge is deciding how to measure progress under the IP management strategy.109 In the three-year timeline, the goal may simply be to record numerical data about the IP portfolio, such as the number of invention disclosures captured, patent applications

103 See GIBBS & DEMATTEIS, supra note 47, at 189–90.
104 DOBRUSIN & KRASNOW, supra note 18, at 304–05.
105 Id. at 411–13.
107 See GIBBS & DEMATTEIS, supra note 47, at 197.
108 See DOBRUSIN & KRASNOW, supra note 18, at 305.
filed, trademarks registered, and license agreements signed.\textsuperscript{110} These are easily quantifiable, and provide a baseline against which to measure the size of the company’s IP portfolio over time.\textsuperscript{111} These numbers should be reviewed and updated at least annually.

One useful metric at this stage is to measure the profitability of a particular product associated with protected IP.\textsuperscript{112} The amount of profit that a product is generating can be a good indicator of whether the resources being spent on IP protection for the product are proportional to the benefit that the company is deriving from the product.\textsuperscript{113} Completing patent maps for the company’s patents and products is instrumental in being able to complete this measurement.\textsuperscript{114}

\textit{D. The Three-Year Strategy in Action: Start a Patent Bidding War}

The following example, inspired by the author’s own experience, demonstrates how a company integrated its IP strategy with its business strategy by using its IP portfolio to create revenue even as the company made a business decision to exit the market.

A company patented its process improvements in the manufacture of certain vitamins. When a competitor established significant IP in the efficient manufacture of the raw materials used to make the vitamins, the company became unable to profitably produce its product. When the company decided to exit the market, the company offered to sell its patents to the competitor. The competitor declined, so the vitamin company went to a second competitor with the offer to sell the patents. The second competitor discovered that the first competitor was infringing these patents. When both competitors realized that the patents had significant

\begin{itemize}
  \item \textsuperscript{110} Sullivan & Mayer, \textit{supra} note 28, at 56.
  \item \textsuperscript{111} See generally \textit{id}.
  \item \textsuperscript{112} See, \textit{e.g.}, ARENA & CARRERAS, \textit{supra} note 22, at 268.
  \item \textsuperscript{113} \textit{Id}.
\end{itemize}
value, a bidding war ensued, ultimately leading to a large monetary windfall to the company that was exiting the market.

IV. THE FIVE-YEAR TIMELINE: VALUE CREATION

At the value creation level of the IP pyramid, a true cultural change happens within the company.\(^{115}\) IP decisions become an integral part of business strategy discussions.\(^{116}\) Generating IP protection for new products becomes automatic, and budgeting in each business unit takes into account the costs associated with protecting the IP.\(^{117}\) Value extraction opportunities from the company’s IP portfolio become part of the company’s overall business plan.\(^{118}\)

Whereas the IP foundation and business integration levels of the IP management pyramid will look similar across different organizations, value creation in the five-year timeline will be implemented differently in different organizations. Each company’s individual strategy will be dependent on the company’s industry, its size and growth, its competitors, and its ability to obtain IP protection for its products and services.\(^{119}\) The value creation level of the IP management pyramid is a critical point at which each company must make strategic decisions about where to “steer the ship” in its continuing IP management strategy. It is at this stage that the fruits of the company’s previous efforts will come to bear.

A. Goals of the Five-Year Timeline

1. Value Creation

Value creation in the five-year timeline can come about as a result of IP enforcement and licensing, but other uses of IP, such as

\(^{116}\) Phelps & Kline, supra note 6, at 145.
\(^{117}\) See Manton, supra note 5, at 67.
\(^{118}\) Id.
\(^{119}\) See Harrison & Sullivan, supra note 9, at 51–55.
joint partnerships and cross-licensing, are equally valuable at this stage.\textsuperscript{120}

\textit{i. Finding Opportunities for Value Extraction}

In the five-year timeline, value creation will mean different things for different companies, and two companies may use their IP portfolios in completely different ways to extract value. As an example, Marshall Phelps, who formerly headed IBM’s licensing group and later moved to Microsoft, explained how the two companies used their IP portfolios in very different ways to achieve their business goals.\textsuperscript{121}

When Phelps joined IBM, the company had an enormous patent portfolio but was on the brink of bankruptcy and desperate for cash.\textsuperscript{122} Because IBM had already ascended through the IP foundation and business integration levels of the IP management pyramid, Phelps was able to steer the ship of IBM’s IP management strategy by licensing the IP portfolio to generate enormous licensing revenues.\textsuperscript{123} Soon after Phelps joined the company, IBM’s patent portfolio began generating two billion dollars annually.\textsuperscript{124}

When Phelps left IBM for Microsoft in 2003, he encountered nearly the opposite situation. Microsoft too had reached the IP foundation and business integration levels of the IP management pyramid. Microsoft was flush with cash, but it had serious problems with antitrust regulators.\textsuperscript{125} Microsoft’s previous patent strategy was to jealously guard its IP rights, but Phelps convinced Microsoft to begin a new program creating partnerships and cross-licenses with

\textsuperscript{120} See Sullivan et al., \textit{supra} note 20, at 26.
\textsuperscript{121} Phelps & Kline, \textit{supra} note 6, at 2–3.
\textsuperscript{123} Phelps & Kline, \textit{supra} note 6, at 3.
\textsuperscript{124} Wild, \textit{supra} note 122.
\textsuperscript{125} Phelps & Kline, \textit{supra} note 6, at 6–7.
other companies. This IP management strategy transformed Microsoft’s culture within the company and its image to the outside world.

These stories of large companies that took advantage of their IP portfolios to create opportunities for value extraction highlight the importance of working with parties outside of the company to create revenue.

ii. Treat Partnering as Part of the Intellectual Property Management Strategy

In order to protect the company’s proprietary information, it is best to treat partnering and licensing agreements as part of the company’s IP management strategy. However, every agreement should be approached with an eye toward protecting the company’s legally enforceable trade secrets. Protecting trade secrets from becoming public will have the parallel benefit of preserving the company’s ability to obtain patent protection for its inventions.

One important source of value extraction is the use of the company’s IP portfolio in cross-licensing agreements to decrease costs. Developing partnering and cross-licensing agreements with other companies can be an effective strategy for growth and

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126 Id.
127 See Wild, supra note 122.
129 ARENA & CARRERAS, supra note 22, at 264.
131 See Oriel, supra note 21, at 92 ("Successful business partnerships can be formed with relatively small amounts of dollars changing hands when both parties recognise the value of their tangibles and intangibles.")
expansion into new geographic locations and product markets. Especially when the IP field is crowded in a particular business area, a strong IP portfolio can be leveraged to cross-license the IP necessary to be protected within the new markets.  

B. Challenges in the Five-Year Strategy

1. Increasing Cost of Patenting

Before a company begins its IP management strategy it may undervalue its IP portfolio, but at the value creation level it may begin actually overvaluing its patents. Even when the company is selective in choosing which inventions to patent, not all patents will have equal value to the company. Substantial costs associated with patenting, including national and international filing fees and maintenance fees will begin to surface.

In the U.S. patent system, maintenance fees are due three, seven, and eleven years after initial patent issuance, with steep fee increases in each subsequent period. Unused patents not able to be sold or licensed may be strategically abandoned, which can save tens or even hundreds of thousands of dollars per year. It is useful to automate the strategic abandonment of patents. For example, the company could institute a policy that the maintenance fee due at 11.5 years will not be paid unless a business justification can be made to keep the patent in force.

132 See id. at 93.
133 See Sullivan et al., supra note 20, at 26.
134 See Jarczyk et al., supra note 128, at 25.
135 Dobrusin & Krasnow, supra note 18, at 371.
136 Id. at 84.
137 The current maintenance fees through December 31, 2013 are $1600 due at 3.5 years, $3600 due at 7.5 years, and $7400 due at 11.5 years from issue. United States Patent and Trademark Office Fee Schedule, U.S. PATENT AND TRADEMARK OFFICE, http://www.uspto.gov/web/offices/ac/qs/ope/fee031913.htm (last revised on Nov. 15, 2013).
138 Dobrusin & Krasnow, supra note 18, at 84.
Because patents are by far the most expensive IP right to secure and maintain, it is essential to the overall IP management strategy to secure high-quality patents. In other words, the company should focus on obtaining patents that the company will be able to enforce against a competitor. This strategy complements the strategy of obtaining patent protection on the company’s core businesses, because the patents covering core businesses must be strong enough to be enforced in court.

2. Deciding Where to Steer the Ship

After a company has integrated its IP management strategy with its business strategy and accumulated a strong IP portfolio, there are a number of different paths that it can take depending on how the company decides to use its IP portfolio. For example, a company may wish at this stage to create a formal IP licensing group within the company or even to create an IP holding company to manage the IP portfolio. However, IP licensing requires special knowledge and skills. While value extraction opportunities should be explored at this stage, the company should avoid the temptation to move too quickly up the IP pyramid. If the company does not have

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139 Id. at 120.
140 Id. at 120–121.
141 Id. at 128–129.
144 Id.
145 For example, in 2007, Wal-Mart attempted to enter the movie download business. However, it was unable to negotiate a favorable licensing deal. Less than
all of the necessary people and resources available to implement an increasingly sophisticated IP strategy, it will not be able to move up the pyramid in a sustainable way.\textsuperscript{146}

C. The Five-Year Strategy in Action: Take Advantage of the “Double Dip” Effect

The following example, inspired by the author’s own experience, demonstrates how a single licensing agreement can create value in multiple ways.

A plastics company making a commodity product developed and patented an improvement that reduced the cost of making the product. A foreign low-cost producer copied the patented improvement. After the plastics company filed a complaint of patent infringement, the foreign producer agreed to license the patents. The foreign producer increased its prices to cover the added royalty cost, and the entire market followed by raising prices. This licensing arrangement essentially allowed the plastics company to profit twice from the same business transaction: first from the licensing royalties, then from the overall increase in the market price that it could charge its own customers for the product.

V. THE TEN-YEAR TIMELINE: BECOMING A VISIONARY

Companies that successfully ascend to the value creation level of the IP management pyramid may decide to push the bounds of their IP management sophistication even further by implementing the ten-year timeline to reach the level of visionary. In the ten-year timeline, the focus should be on generating additional income in unconventional ways.\textsuperscript{147}

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\textsuperscript{146} Oriel, supra note 21, at 26.
\textsuperscript{147} Jarczyk et al., supra note 128, at 19.
\end{flushleft}
A. What Does it Mean to be a Visionary?

Visionary companies have IP portfolios that cover not only current products, but technologies that anticipate where the market will be in the future. Some visionaries think of IP as an investment option. Most innovative ideas in R&D do not result in large commercial successes, so IP related to R&D development in emerging technologies may or may not become economically important. Visionaries are willing to invest time and resources to protect IP in these disruptive technologies. The IP may be used strategically in the future for product protection, licensing, cost savings, litigation, or cross-licensing. This behavior is best thought of as an investment option, because in many cases the technology will not be of significant value, and the company will not call the option. However, when a particular technology does become economically significant, the visionary is ready with IP protection that will have a significant amount of value.

Visionaries appreciate that different types of IP such as patents, trademarks, licensing agreements, and mergers and acquisitions are interconnected. Visionaries do not “merely [claim] patent rights for their intellectual property.” These companies take advantage of the interconnectedness of the different types of IP by using multiple protections for a single product or business unit to create enhanced value. This can be especially useful for products protected by both patent and trademark protections. The life of a patent is shorter than that of a trademark, but as the strength of the

148 Oriel, supra note 21, at 95.
149 HARRISON & SULLIVAN, supra note 9, at 30–31.
150 ARENA & CARRERAS, supra note 22, at 270.
151 See, e.g., ARENA & CARRERAS, supra note 22, at 270.
152 Id. at 121.
153 HARRISON & SULLIVAN, supra note 9, at 31.
154 Id.
155 Id.
156 Jarczyk et al., supra note 128, at 20–21.
157 See id. at 23.
158 Moore, supra note 24, at 80.
patent coverage decreases over time, the strength of the trademark increases. Therefore, the combination of both patent and trademark rights for a product creates more value for the IP portfolio than each of those IP rights individually.

B. Centralizing Intellectual Property Ownership

One method used by visionary companies is the creation of an IP holding company to centralize ownership of the company’s IP. The larger the company, the greater advantage this can provide, especially if the company is actively involved in acquisitions and divestures. This type of business structure can provide tax benefits, streamline licensing operations, and insulate normal business units from the disruptions caused by IP disputes and litigation.

C. Challenges in the Ten-Year Strategy

1. More Opportunities are Available than the Company Could Possibly Follow

Somewhat surprisingly, the number of value extraction opportunities actually increases as one moves up the IP management pyramid, as opposed to being more restrictive. One of the challenges at this level is deciding how to apply the company’s limited resources to the highest value-producing opportunities. This naturally requires a fair amount of upfront analysis.

D. The Ten-Year Strategy in Action: License Your Portfolio to a Competitor

The following example, inspired by the author’s own experience, demonstrates how a visionary company can use its

159 See id. at 82.
160 Id. at 80–82.
161 BRYER ET AL., supra note 17, at 4–5.
162 Id.
163 Id. at 19–20.
164 See Oriel, supra note 21, at 95.
interconnected IP rights to expand its own business through the efforts of the company’s competitors.

A steel manufacturer developed and manufactured an improved type of steel beam. The manufacturer fully protected its market exclusivity by securing product patents, process patents, end use patents, and trademarks on the product. The product became so popular that the manufacturer could not meet customer demand. Customers turned to the manufacturer’s competitor, asking for the product by the trademark name. The manufacturer agreed to license the product’s patents and trademark to the competitor. As a result, with no additional capital investment, the steel manufacturer was able to receive income from its competitor’s manufacture and sale of the licensed product.

VI. CONCLUSION

There are many benefits associated with the development of a successful IP management strategy. However, implementing such a strategy is a significant effort. Moving up the IP management pyramid requires an investment of time, financial resources, and human resources. Management and executives must be brought on board, infrastructure must be put into place, and in many cases even the culture of the company must be changed. As in the case of the fruit juice company, this can be a large ship to turn.

With this in mind, it is important to have both a short-term and long-term plan that will create change in a meaningful and sustainable way. Having goals for one-year, three-year, five-year, and ten-year timelines can help a company successfully implement an IP management strategy. Putting the foundational elements in place is the hardest and most time-consuming part of the journey, but moving up the levels gets easier at every stage. In the end, the bottom line is exactly that—the bottom line—and that is what makes the effort so worthwhile.