

IP Management Challenges - Meeting The Competition

BY EDWARD J. MENDICK JR.*



Current and emerging trends in small-business management of intellectual property resources and licensing services in U.S.

Thodore Roosevelt, President, environmentalist, author, man, and general all-around American hero once noted that:

There are two kinds of success. One is the very rare kind that comes to the man who has the power to do what he wants his life power to do. That is genius. And the other man who succeeds at all success is not a genius. He is a man who has merely the ordinary qualities that he shares with his fellow, but who has developed these ordinary qualities to a more than ordinary degree.¹

Most of us are in awe of genius but few of us have the opportunity to do more than stand about the handrail of the Falkner's, Ferry's and Woodley's that periodically dot the landscape of fundamental science and contribute in grand ways to the improvement of our daily lives. For the most part the kind of inventors and inventors that we encounter in thought-leads by ordinary people who believe their goals by depending on those ordinary qualities which, as Roosevelt noted, they exercise "to a more than ordinary degree."²

Most of these ordinary people toil as individual entrepreneurs in small enterprises or as part of large, well-funded corporations. This paper will focus on the former — those individuals who embark on the pursuit of innovation as part of the world of small business. More particularly, this paper will review the current state and emerging trends associated with the development of small business enterprises in America and assess the current state of intellectual property management and licensing services

for this very visible sector of the economy. It is planned to proceed along three lines of inquiry:

1. Present a picture of what constitutes the term "small business" and reflect on its role in the context of the evolving "information age."
2. Outline various approaches and "tools" that small players can utilize to protect and create value from intangible assets.
3. Suggest a framework that the small business entrepreneur, concerned with the most effective utilization of limited financial resources, might use to assess the status of his intellectual property management program.

SMALL BUSINESS—THE DEMOGRAPHICS

The phrase "small business," used herein is technically a term-of-art created and defined by the Small Business Administration ("SBA") of the U.S. federal government. Simply stated, small business means any enterprise, regardless of form of organization, with fewer than 500 employees. As reported by the Office of the Advocate, a lobbying arm on behalf of small business and a department within the SBA, small business in the United States is the dominant form of doing business. "Small business firms employ 50% of the private non-farm work force, contribute 47% of all sales in the country, and are responsible for 50% of the private gross domestic product. Small Business-dominated industries produced an estimated 64% of the 2.9 million new jobs created during 1995 (U.S. Department of Labor, U.S. Department of Commerce)."³ Since 1982, small business formation has increased "50%." Recent research indicates that "about three-quarters of new business owners are also employed with a

major and salary job when they start a new business."⁴ Of even greater significance is the fact that "[f]rom 1982 to 1996... actually all net new jobs were generated by small firms with fewer than 500 employees. Large companies continued to eliminate and repositions exceeded hires."⁵ "According to recent BLS (Bureau of Labor Statistics) projections, small-firm-dominated sectors will contribute about 80% of new jobs from 1994 to 2005."⁶

The posture of small business is a broad one encompassing everything from high-tech start-ups in the electronic and software industries to new restaurants and dry-cleaners at the simpler end of the service spectrum. While all these enterprises produce forms of intellectual property, the sphere of new high-technology companies is of particular concern to the United States as we increasingly become a major economic cog in the world market and as the percentage of our gross domestic product increasingly becomes dependent on foreign trade. By the mid-1990s, "94% of high-tech firms had fewer than 500 employees." Amazingly, "70% of these firms had fewer than 20 employees" and "provided 28% of [all] jobs."⁷

The Office of the Advocate has produced a number of studies that also indicate that small business enterprises have a leadership position with respect to new product innovation. Some of their key conclusions are:

- Small firms produce 55% of innovations. They produce twice as

*President, EpochTech Associates, Inc., Costa Mesa, California; the author wishes to thank LES members Don Altman, Marvin Sells and Mark Hain for their help with this article.

many product innovations per employee at large firms, including the employees of firms that do not innovate. This is also true of significant innovations.

- Small firms obtain more patents per sales dollar and apparently have more discoveries than large firms, since research has shown that large firms are more likely to patent a discovery.

- Small research and development (R&D) firms are quite research intensive (the percentage of employees that are R&D scientists and engineers are 6-8% in small firms and 4.0% in large R&D firms).

- Larger firms receive 26% of their research and development dollars from the federal government, small firms, only 1%.

- A federal R&D dollar to a small firm is more than four times as likely to be used for basic research as a federal R&D dollar to a large firm.¹

◆ Engine Perspective ◆

From the perspective of the engine that creates and sustains the development of intellectual property, the data points out, "[T]he average small enterprise with intellectual property has 81 employees with 39% of the employees in R&D, and the average large enterprise with intellectual property has 12,829 employees with 3% of the employees in R&D."²

A recent "whitepaper" codified and on by the Office of Advocacy and the Office of Economic Research produced some significant economic observations that revolutionize traditional concepts of large versus small business and help explain the impressive performance of the U.S. economy during the last decade of the 20th Century. The report notes that:

Throughout most of this century, observers looked at what amounted to a still photograph of the American economy, one that ignored both dynamic advantages in producing products at lower cost, and concluded that big business drove the economy. But the American economy is not a still picture — it's a dynamic system that changes while you're looking at it. Looked at from the perspective of process, change and creative

tion, small firms make at least two indispensable contributions to the American economy:

- As sources of constant re-innovation and innovation, they are an integral part of the renewal process that defines market economies. They have a crucial role as leaders of technological change and productivity growth. In short, they change market characteristics.

- By creating opportunities for science, invention, and entrepreneurship, they are an essential mechanism by which millions enter the economic and social mainstream.³

◆ Link to Success ◆

The success of small firms, particularly those in the manufacturing sector, is also linked to the efficacy of their technology transfer programs — both "in" and "out." Additional research on the impact of accelerated technology change and its concurrent rapid movement within, across, and out of enterprises of all sizes has led to conclusions about the characteristics of small high-tech firms. Some simple conclusions are:

- Although small high-tech firms deal more frequently in explicit knowledge, small firms to a great degree more an informal learning. The smaller the firm, the more likely that linkages with customers, suppliers, competitors, and experts will influence technology adoption.

- Joint ventures, R&D collaborations, and technology-exchange agreements are examples of private-sector-based alliances for promoting technology development. Small firm involvement is most likely in technology-exchange agreements. Licensing is increasingly used by small firms to obtain new technology.

- Because small firms have a limited ability to absorb mistakes in underestimating the costs of switching technology, the availability of good information is especially critical.

- Flexibility is perhaps the most potent form of enabling the informal linkages that are so valuable. The flows are linked through the trading of goods and services, joint venture around specific market opportunities, informal sharing of technology

and ideas, intensive flow of skill labor, and the ready availability to expand if needed (details added).⁴

TOOLS AVAILABLE TO SMALL BUSINESS/ENTREPRENEURS

The economy in the opening moments of the 21st century will have, at least, the following three trends — the rapid and rising growth of small business, the growing and leveling influence of knowledge, and the continuing conflict of beliefs that big is better, interpreted in ways that permit the drawing of conclusions that are either hopeful or depressing for the future competitive position of small business in the information age. While there no doubt will be continuing struggles based on the culture and tactics of large and small players, the small business owner or entrepreneur, doggedly focused on marketing, can prepare to do business in a number of ways that will help ensure success. There exist avenues that can be pursued by the small player that offer competitive opportunities that can help him to better the chance of reaching one's goals. Although little work has been done to package these in any comprehensive volume or approach for consideration by small business, there is value in reviewing the list of potential "tools" and selecting out those that might serve a particular enterprise. The list that has been organized loosely into three overlapping categories: (a) Basic, minimal cost steps, (b) Intermediate, higher cost steps, and (c) Advanced partnering, more significant cost steps.

Basic, Minimal Cost Steps

Basic Research is a recent issue of a management report citing the post-World War employment statistics of many Eastern Bloc spies, it was noted that "[I]ntellectual Property losses from industrial and economic espionage may have cost U.S.-based businesses more than \$300 billion in 1995 alone."⁵ The report goes on to note that "[I]n virtually every business represents a target."⁶ and recommends careful attention to employee-related issues associated with the hiring

and termination processes as well as access and management of electronic assets such as Internet access. It is estimated that companies "allocate only 2% of their security resources to guarding against intellectual property theft,"¹⁴ making an already small expenditure even less effective in the long to protect intangible assets. A first line of defense, therefore, for all businesses is a basic program to ensure the physical and electronic security of all information resources, including private employee information from the point of hire to termination.

Basic Agreements: As part of the protection issue, a second line of defense available to small entrepreneurs is to clearly take steps to protect assets and limit the number of humans involved, based on predetermined job need. As a minimum, the small enterprise needs to address employee access issues regarding a stage of knowledge assets. This applies to fundamental formulas, as well as assets seemingly proprietary, but absolutely valuable, assets like business plans and customer lists. It may be that "[t]he best form of protection for intellectual property is documentation."¹⁵ In this regard, it is critical to "ensure that assets developed by your employees are owned by your company [by] having employees sign an employment agreement stating they agree that any inventions, copyrightable ideas or trademark they develop on company time, using company equipment belongs to the employer [and acknowledge] providing records...for substantiating ideas."¹⁶

A Basic Inventory: While deriving policies and documenting procedures that are codified in agreements is critical, the know-how needs to gather these assets in the need to conduct a comprehensive inventory of intangible assets.¹⁷ List tangible assets if equipment, real estate and buildings, intellectual property assets can and should be quantified, inventoried, maintained, and assessed for strategic purposes on a regular basis.¹⁸ While the design and collection format, as well as the frequency and the formality of reviews, will vary widely based on the nature, size

and commercial posture of the small business, it is wise to design and utilize a broad net when assessing what may be of value in the enterprise. Beyond the traditional categories of patent, copyright, trademark and trade secret, the entrepreneur should review all manner and forms of enterprise created information — product, service and process plans and specifications, business, financial, and market plans, customer lists, and all manner of strategic planning documents. "The most thorough intellectual property inventories include two further layers. The first is an evaluation of how the assets fit into the larger goals, policies and procedures of the company. Intellectual properties are both "treas" and "vends" in and of themselves. The earlier stage of the intellectual property inventory evaluated the assets themselves as an end, focusing on the strength and protection of each asset. This stage considers the asset in the context of the entire company. The final layer... is a study of the company's relationships with others."¹⁹

Basic Legal Support: Even the most fundamental approaches to intellectual property protection and exploitation have some associated cost. An area that is often intimidating to the small business owner or entrepreneur is the need for what is assumed to be costly legal services. It has been estimated that "[e]very year about 1 million new businesses are established in this country [and that] maybe a third of them are started with the help of a lawyer."²⁰ Very-costs not provided to be such a hurdle, it is unlikely that the involvement of attorneys would be higher. It is difficult, however, to contemplate an impetuous approach to business formation which a typical start-up will need to decide form of organization, tax, securities, employment, environment, property and contract considerations, future ramifications, as well as intellectual property issues. An approach that emphasizes the requirement for the small business person to work closely with legal counsel is advised. "During these times of growth and change, it is essential that small

business owners trust and believe in their legal advisors [so as to] complete the transaction with such professionalism..."²¹ Training, perhaps by more limited task sharing, is more likely to lead to quality results at the right cost.

Interim: Higher Cost Steps

Beyond the first tier of "basics" detailed above, the small business owner/entrepreneur can embark on a somewhat more sophisticated set of steps to protect and utilize intangible assets. These steps are likely to involve a greater expenditure of time and resources, hence are likely to be more costly.

Strategic Planning: The challenge for the small player is to rise above the daily pressures of the enterprise and take a longer look at the future and to identify and execute steps to maximize the preserved business opportunity. While planning at start-up may be viewed as advisory, it shortly surfaces as a critical element along the pathway to success. Strategic Planning in the context of an information-age enterprise often involves a careful assessment of the nature and interaction of tangible and intangible assets. Assessing the tangibles might be accomplished by a proper accounting of the legal, labor, and capital factors assigned to the enterprise. Understanding the nature, and interaction of intangibles, as "sources of competitive advantage,"²² is somewhat more complex. It involves "an understanding of the role of the intangible resources in a business... by analyzing the competitive advantage observed in the marketplace, the capability differentials [see below] that produce the advantage, and the intangible resources that act as the wellspring."²³

²²Coyle (1986) identifies the sources of sustainable competitive advantage as being four types of capability differentials—

...*Positional differential results from the knowledge, skill, and expertise of employees, and otherwise the value chain such as suppliers, distributors, providers, lawyers, advertising agents etc.*

²³*Strategic Planning applies to the opportunities at a whole. It incorporates the habits, attitudes, beliefs and values, which permeate the in-*

dividuals and groups that comprise the organization.

Technical information: the convergence of past activities. For example, have produced a certain apparatus with accuracy, a certain advantageous feature of facilities, etc.

Regulatory information: results from the protection of legal entities such as intellectual property rights, contracts, trade secrets, etc.¹²

The capability of the small business owner or entrepreneur to single-handedly perform the above analysis will, of course, vary widely with the capabilities of the principals.

Competitive Intelligence: While listed in the outline of the importance of a basic security program, competitive intelligence is a much more significant concept than the protection of assets from unethical or simply clever competitors. Certainly, basic protection steps, as outlined above, need to be implemented. Beyond the basics, however, competitive intelligence is a needed tool to deal with the rapid creation and easy dissemination of information among 21st century businesses. Competitive intelligence is better thought of as a process of "competitive learning" — a company's acquisition of knowledge from its environment — from competitors, from customers, suppliers, from strategic partners, from consultants, from anyone and anything that can impart knowledge about the company's competitive base.¹³ Competitive intelligence is about looking outside the enterprise no matter how small, involves learning to listen to all manner of sources, and seeks to drive the small business owner toward active engagement with the external marketplace. It is a tool to move the focus beyond the daily pressures of internal operations.

Competitive intelligence is not about the unethical pursuit of proprietary information through spywork or illegal activities or improper forms of industrial espionage.

It is accepted that innovative new products will be reverse-engineered, that anything published will be analyzed, and that employees will be cleverly poached for competitive information. There is, thus, however, that distinguishes acceptable

intelligence-gathering from industrial espionage. Examples of acts that the courts have found to be unacceptable means of obtaining competitive information are breach of a nondisclosure agreement, theft and unauthorized copying of documents or computer files, trespassing, intentionally breaching access controls to obtain information in a computer system, allowing bribes, taking aerial photographs of internal areas of plants under construction, and obtaining employment for the sole purpose of learning and divulging or using for personal gain information with which one is entrusted.¹⁴

Obtaining Defense Licensing If

competitive intelligence is about looking outside the enterprise to gain advantage from the acquisition of knowledge, the creation of a trade licensing program is the next logical step in making concrete value. Licensing is a "permission, granted by an owner or inventor, generally for a consideration, to a person, firm, or corporation to use owner's proprietary information, invention or material, a covenant by a proprietor not to sue infringers of its intellectual property rights, provided certain conditions are observed."¹⁵ Licensing provides on a better understanding of how the marketplace operates by capturing or contributing value without necessarily losing all control over the asset. It is inherently a relational form of doing business — a concrete element of transactions in the information age. From the perspective of the small business owner or entrepreneur, licensing offers the opportunity to identify and acquire rights in assets that the small enterprise can not afford to individually develop or to effect a work-around with respect to a technology, owned by another, but important to the success of the enterprise. Correspondingly, licensing offers a pathway to timely involvement and create a return that is the granting of rights to others on either an exclusive or nonexclusive basis. "Licensing can be used effectively to establish a sustainable, differentiable competitive advantage, to legally incorporate a product or service or to recover investment costs, and can be used defen-

sively to prevent others from obtaining or using information or technology which affords a competitive advantage."¹⁶

An Intellectual Property Program is its most basic form, a beginning intellectual property management program requires at least three steps — the early phases of a more robust program. These three are the identification of intangible assets, the provision for some basic level of protection, and some accountability for effective utilization of developed/acquired assets so as to ensure a return on investment. It is extremely important, and very doubtful, that at least a minimum program of IP management be designed that fits well into the operations of the small business. A more robust framework, which extends beyond the three steps noted, will be outlined in the last section of this paper.¹⁷

At a minimum, "an effective intellectual property program should:

- "Encourage employees to bring to the attention of management inventions, designs, product names and other "good ideas."
 - "Provide a system to evaluate the "good ideas," so that the appropriate protection can be sought for those that may have present or future value.
 - "Ensure that ownership is acquired for all employee developed patents, trademarks, copyrights and trade secrets.
 - "Ensure that all inventions and other technological developments are properly documented and corroborated.
 - "Provide a system to minimize risk of infringing the intellectual property of others.
 - "Provide a system to evaluate patents and related technology for commercial development through licensing.
 - "Continuously monitor the corporation's commercial products and market position that ensure that patents are providing effective commercial protection.
 - "Monitor the competition to identify potential infringers."¹⁸
- Although an ambitious list for the small business owner or entrepreneur, it is difficult to ensure the success of a viable intellectual prop-

er's management program without at least a modicum of attention to all of the above issues.

Specific New Techniques. Management and legal practice literature also calls attention to certain possible tools that might be used by the small business owner as entrepreneur as part of the daily drive to compete. Among these are the recent appearance of "intellectual property purchase insurance." This covers the legal fees associated with protecting assets, including the costs of litigation, subject to co-payments and policy limits. However, if the concern is the opposite, getting used for infringing someone else's work, a company should consider a definitive insurance policy (that will) pay its legal fees if it is sued...The real advantage of buying intellectual property assets is that it puts the small player on a level playing field with large enterprises.¹² Accordingly, when faced with an intellectual property dilemma, attorneys and those insured should carefully review insurance policies to identify policy terms that potentially support full coverage of litigation costs.¹³ The advertising liability provision in most GCL [General Comprehensive Liability] policies since 1996 offers coverage¹⁴:

1. Oral or written publication of material that slanders or libels a person or organization or disparages a person's or organization's goods or services.

2. Oral or written publication of material that violates a person's right of privacy.

3. Misappropriation of advertising ideas or style of doing business.

4. Infringement of copyright, title or slogan.¹⁵

Another potential tool in the legal services arena is the use of pre-paid legal services or making an arrangement with an attorney on a contingency fee basis. "Publicly Traded Pre-Paid Legal Services (an Oklahoma corporation organized and operated like an HMO) offers a plan specifically for businesses that have fewer than 25 employees and annual revenues of less than \$2 million."¹⁶ Similarly, the importance and prevalence of intellectual prop-

erty in all forms of business is prompting the legal profession to rethink the merits of offering contingency fee based services. Don Mangillo, a Boulder-based patent lawyer for 19 years and founder of the Rocky Mountain Investor's Congress and Entrepreneur's Conference, said taking measures to protect intellectual property has become absolutely essential for small business. Because of the emergence of a more educated and experienced federal appeals court, intellectual property attorneys are more willing to take cases on a contingency basis.¹⁷

Beyond the changes in the insurance and legal services industries, there is a glimmer of anecdotal evidence suggesting that the banking industry is extending its traditional resistance on lending only against tangible assets or to professionals with a clear ability to generate future income. Banks that have had experience with, or are dominated by, venture capitalists, are noting that "...as knowledge-based businesses become increasingly important drivers of the U.S. economy, especially in terms of small business, banks might do well to look for players in niche markets and develop strategies to serve their needs."¹⁸ Small business will continue to grow and thrive if there is a viable mixture of both debt and equity funding support paths.

Advanced Financing: How Significant Did It Get?

There is a third tier of more sophisticated activity that is open to some, although not all, small business owners and entrepreneurs. It largely involves forms of partnering to support the small enterprise's financial objectives. Assuming these tools require an advanced level of commitment of resources and time as well as increased expense. For the most part, the small business owner or entrepreneur also may face the loss of some level of control and ownership.

Angel Programs: The financial markets continue to adapt to the growth and value of small enterprises. Beyond these tools noted above, there is a third to create

private financial networks that assist in connecting "sophisticated individual investors," "angels," and dynamic small businesses in need of capital, "garages."¹⁹ The SBA recently created the role of "Entrepreneur in Residence" with a mission focused on the following four priorities:

- To make sure that the Small Business Innovation Research (SBIR) program is well represented (in the task of activities designed) to reduce the regulatory burden on small business.

- To address the issue of intellectual property protection for small business.

- To address access to capital for small businesses.

- To ensure that small businesses are well represented in the unfolding Internet and its use by the federal government.²⁰

The mission articulated by the last two bullets is being realized through the creation of the Angel Capital Electronic Network, or ACE-Net, an Internet-based service started in October 1998²¹ to help match the angels and garages. The amount of money and the terms of investment are closely held and obviously evolving. It is likely that, given an investment network subjected to arbitrary regulation, the patch of financial need will be addressed by a range of providers from pension funds, to commercial lenders, to venture capitalists, to "angels," and finally the Small Business Administration. The latter likely will be a mandatory path for minority and female enterprises.

Technology Incubators: The concept of the incubator is another, highly desirable form of small business support. The objective of the incubator program — which exists in varying degrees all across the United States — is to "help technology-based companies become independent, thriving businesses (by providing) management counsel and networking opportunities, program and business databases and library facilities, executive suite services, and assistance with capital raising."²² These programs do not usually provide direct monetary support but manage the assembly of a broad range of resources —

human and capital — and is intended to facilitate the independence of the small business. The importance of this form of contribution seems obvious from the results of a study done by Inc., magazine and National Business Incubator, [which] revealed that 80% of new businesses fail within five years, some 52% fail because of management-related problems and 48% fail due to lack of capital. When a start-up is affiliated with an incubator, however, 88% survive. This statistic is four times higher than the national average for business success.¹²⁴

Invention Management/Inventor Assistance Programs: Another avenue, although even more limited than the incubator programs, is for the small business owner or entrepreneur to seek access to and support from selected inventor assistance programs that exist in both the profit and nonprofit sectors. One such example, “[c]reated by Arthur D. Little Enterprise (ADLE), the invention management arm of the international consulting firm Arthur D. Little, Inc. [offers ongoing] guidance on invention development and reviews the resources available to inventors as they try to move their invention from the drawing board to the production line.”¹²⁵ The Invention Management Program reports receipt of over 1,000 ideas annually but “chooses less than a dozen for its commercialization services [that can include assistance by ADLE] of time and financial resources necessary to develop each selected invention technically, secure patent protection and then license it to manufacturers [with] compensation typically — a percentage of licensing income.”¹²⁶ The Invention Management Program notes its success by reporting that “[M]ore than \$500 million worth of products are manufactured and sold annually worldwide under licenses from ADLE.”¹²⁷

In the nonprofit sector, an example of support available to the small entrepreneur is exemplified by the Franklin Pierce Law Center’s Invention And Creativity Clinic. The clinic “is composed of law professors and students from Franklin Pierce Law Center, working in conjunction with practicing intellectual

property attorneys from throughout the New Hampshire community... [and has as its objective]:

• “To offer guidance and assistance to inventors and corporations in matters of intellectual property.

• “To provide a meeting place for inventors and entrepreneurs to come together to exchange names and information.

• “To provide a hands-on learning opportunity for Franklin Pierce Law students to gain experience in dealing with ‘real world’ aspects of intellectual property law practice.

• “To increase the general awareness of intellectual property and its growing importance as we further the move into the information age.”¹²⁸

The clinic’s success reflects the importance of several factors: the rapid and timely access to information, the emergence of informal networks of experts, and the availability of resources in less traditional forms than law firms and corporate organizations. Support of the clinic concept also demonstrates an awareness at the state government level of the importance of intellectual property as a stimulus to local economic growth.

SMALL BUSINESS — A FRAMEWORK FOR GOING FORWARD

Despite the obvious impact of

information-age economic trends, the growing awareness of the importance and vitality of small business, the rising importance of intangible assets and intellectual property in the hands of the small player, and the greater availability of tools and resources from the legal and business community, the task of accessing and turning scores into success is a formidable burden that falls on the few shoulders that are the mainstay of most small enterprises. The literature describes the difficulty that the small player faces in trying to balance the demands for limited time and funds across all of the areas that ideally should be addressed.

Additionally, there continues to be a perception that utilization of external resources from the professional legal and consulting communities is too expensive and time consuming relative to the non-monetary value added. In addition to the normal, “go-it-alone” attitudes of the small business owner and entrepreneur (often the hallmark of their approach as well as the defining characteristics associated with their perseverance and subsequent success), the reality of the small-business market is that a great deal of any approach to the protection and utilization of intellectual property will have to be undertaken internally within the



Figure 1

concept, at least initially. As such, it makes sense to suggest a framework for the small player that is an achievable program of action to address IP issues. Figure 3 is such a framework.

The above model suggests that there are at least three primary concerns for the small business owners and entrepreneurs. They are cost, required effort, and the degree of required formality. All are consumers of the scarce resources of time and money for the small player. The model makes clear that there is "no free lunch" in the creation of an Intellectual Property Management Strategy ("IPMS"). It points that there are five critical steps in the creation of an IPMS:

1. Identification of the important inventory of intellectual property assets.
2. Base protection requirements.
3. Program to ensure economic utilization within the enterprise.
4. Program of acquisition of external intangible assets personally at impact to the enterprise, (optimal) to the enterprise.
5. Program to optimize the portfolio of intangible assets by possibly licensing out a subset of created/acquired assets that may have a different (even greater) value outside the enterprise.

Further, the identify, protect and utilization steps can, for the most part, be undertaken internally within the enterprise and should be achievable in an informal and low-cost manner. The steps that face outwardly to the broader marketplace — asset acquisition and optimization through sale or license — are likely to come later in the entrepreneur's life style. They will be more legal and formal in nature and are likely to require additional cost as the need to utilize external professionals becomes both necessary and desirable.

The primary reason for structuring the model as presented is, however, to make clear the point that it need not be overwhelming for the small player to commence the development and roll-out of a reasonable IPMS. It is possible to get started small, to grow a strategy, and to improve the level and depth of management in the

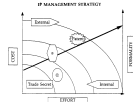


Figure 3

enterprise experience additional success in the marketplace.

The same idea — getting started at low cost, in an informal vein, and with gradual expenditures of effort — also applies to the types of IP protection that the small player might choose. Figure 3 attempts to demonstrate a similar approach as it might generally apply to the principle legal regimes attending IP protection:

Again, the three areas of concern — cost, required effort, and degree of required formality — delineate the landscape against which the small player wishes to assess the desirability of pursuing protection under each of the predominant IP regimes. Again, there is nothing that is cost free. However, it is possible the small player might begin by securing that trade secrets, which can and do come a host of forms of technical and business information, are adequately protected. Combined with copyright, where applicable, these initial steps might be easily undertaken within the enterprise and involve minimal cost.

Some technologies, however, will require the advantages that the more formal trademark and patent regimes provide with the consequent additional time and cost to obtain the value offered. The

message, however, is for sure: It is reasonable and possible to get some level of protection early, at lower cost, and with less initial dependence on professional input.

CONCLUSION

As we approach the 21st century, the vistas of economic opportunity seem almost endless. The ability of Rostovsky's "ordinary person" to achieve rare and extraordinary contributions to the welfare of self and others seems significantly less constrained than at the turn of the last century. Part of this is due to the massive changes in man's ability to understand and fix a player in the world around him or her. Part is due to advances in communications that have made the world a very small "blue marble." These things have resulted in an increasing understanding of diverse cultures and a distillation of the common needs of the individual. These requirements are leading all of us toward life in the "global village." As has been noted, the real increases in the world's pool of knowledge, the increasing relative ubiquity of knowledge-based assets, and the powerful shift away from the capital investment constraints of the 200-year-old industrial age, are creating a new

order wherein individuals — small business owners and entrepreneurs — can compete for a share of the expanding global pie. In this scenario, it is critical that intellectual property — the output of the human spirit — be protected and managed in a balanced manner for the betterment of its creators as well as the rest of its souls who, for better or worse, will continue to be the beneficiaries of those who develop themselves, as Roosevelt pointed out, "to a more than ordinary degree."¹

ENDNOTES

1. Glenn Feldman, *The Speaker's Sourcebook* (2003).
2. Different Aspects: Small Business Administration, *The Fair Use Small Business*, (September 2004) <http://www.sba.gov>.
3. *Id.*
4. *Id.*
5. *Id.*
6. *Id.*
7. *Id.*
8. *Id.*
9. John Doe, et al. *The New American Revolution: The Role and Impact of Small Firms* (2000). <<http://www.era.gov>>
10. *Id.*
11. *Id.*
12. *Id.*
13. *Id.*
14. *Id.*
15. *Id.*
16. *Id.*
17. *Id.*
18. *Id.*
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