IP Property Valuation
The Legal Counterpart/Counterpoint
IP Academy/IPOS
Singapore
March 1, 2007

Intellectual Property Valuation
The Legal Counterpart or Counterpoint

I. Introduction

We are living in a "Golden Age" for intellectual property rights (IPRs). Bill Gates speaks of a new "Gold Rush." Others consider IPRs a new and different "Bull Market." Patent filings and issuances have been skyrocketing, so much so that there is talk of a patent "revolution", "explosion", and "frenzy". The U.S. Patent & Trademark Office (USPTO) is granting now almost 200,000 patents, almost three times as many as in 1980. Trademarks have experienced a similar boom. And trade secrets are said to be the "IPRs of the new millennium and can no longer be treated as a stepchild."

The American Patent System was revitalized by the creation in 1982 of the Court of Appeals for the Federal Circuit (CAFC), considerable pro-patent legislation in recent years as well as less antitrust enforcement.

"Everything under the sun made by man" is patentable according to our Supreme Court interpreting our Congress (*Chakrabarty* decision, 1980). And as of 1998 even formerly unpatentable business methods and computer programs (algorithms) are now also patentable (*State Street Bank* decision, CAFC, 1998).

More than ever companies are built around patented technology. "Innovate or perish" is the motto. In recent years, royalties obtained for licensing patents have exceeded the billion-dollar mark for companies such as TI and IBM and over $150 billion for all U.S. industries.

Courts read the riot act to infringers. Holding patents valid much more often nowadays, they award damages in the hundreds of million dollars and even exceeding a billion dollars. Preliminary injunctions and treble damages are no longer rare and permanent injunctions are no longer stayed during appeals.

Thus, we now have in the U.S. a thoroughly pro-patent climate, where patents are more enforceable and valuable and it no longer pays to infringe like before when, in the unlikely event the patent in suit was upheld, only reasonable-royalty damages were assessed.

Ronald Myrick, formerly of General Electric, put it this way: "The attraction of IP is simple; it's at the forefront of the technology that's driving the world and IP is one of the unique entities in the law where you're actually creating assets."

II. Integration of IPRs

Oral and written presentations on IP valuation by representatives of business and financial consultancy services that I have heard and read almost always speak to patents — and this Conference also deals with "patent portfolios." However, doing so overlooks the fact that legal protection of innovation of any kind, especially in high-tech fields, requires the use of more than one IP category, i.e. dual or multiple protection.

Professor Jay Dratler in his "Intellectual Property Law: Commercial, Creative, and Industrial Property" (1991), was the first one to "tie all the fields of IP together." According to him, from former fragmentation by specialties, IPRs are now a "seamless web," due to progress in technology and commerce.

And in 1997 the authors of "Intellectual Property in the New Technological Age" also "avoid the fragmented coverage…by approaching IP as a unified whole" and concentrate on the "interaction between different types of IPRs."

Thus we now have a unified theory in the IP world, a single field of law with subsets and significant overlap between IP fields. Several IPRs are available for the same IP or different aspects of the same IP. Not taking advantage of the overlap misses opportunities or, at worst, amounts to "malpractice," per Professor Dratler.

Multiple forms of protection are especially important in the fields of biotechnology and computer.

Especially for high-tech products, trademarks and copyright protection can supplement patents, trade secrets and mask works for the products' technological content. One IPR category may be the center of gravity and more important than others. Other IPR categories are then supplementary but very valuable to cover additional subject matter, strengthen exclusivity, invoke additional remedies in litigation, standup if a primary IPR becomes invalid and thus provide synergy and optimize legal protection.

The most important IP management strategy is exploiting the overlap between patents and trade secrets.

III. The Role & Value of Trade Secrets

a.) Importance of Trade Secrets

Deep–seated misconceptions about the relationship between patents and trade secrets are very prevalent. Trade secrets are treated as the orphan in the IP family, or the black sheep in the IP barnyard. They are maligned as flying in the face of the patent system, the essence of which is disclosure of inventions to the public. Keeping inventions secret is, therefore, supposed to be reprehensible. One noted IP professor in Washington went even so far as to say: "Trade secrets are the cesspool of the patent system." Nothing could be further from the truth. Trade secrets are the "crown jewels" of corporations. "Trade secrets are the IP of the new millennium and can no longer be treated as a stepchild," per Mark Halligan. Indeed, trade secrets are now gaining greater reverence as a tool for protection of innovation. And the stakes are getting higher. Injunctions have become a greater threat in trade secret misappropriation cases and damage awards have been in the hundreds of millions in recent years. For instance, in a trial in Orlando, in which two businessmen were seeking $1.4 billion in damages from Walt Disney Co., accusing

the company of stealing trade secrets for the sports complex at Walt Disney World, the jury awarded them $240 million. And misappropriation of trade secrets of Pioneer Hi-Bred International on genetic corn seed materials by Cargill, Inc. cost the latter $300 million.

Anent the importance of trade secrets, James Pooley proclaimed recently: "Forget patents, trademarks and copyrights…trade secrets could be your company's most important and valuable assets." It is also interesting to note that Henry Perritt believes that trade secrets are "the oldest form of intellectual property protection" and that "patent law was developed as a way of protecting trade secrets without requiring them to be kept secret and thereby discouraging wider use of useful information." That makes patents a supplement to trade secrets rather than the other way around.

Indeed, according to a 2003 IPO Survey on Strategic IP Management, patents are often not viewed as a panacea but as a side show inasmuch as patents have limits, such as, publication, possibility of inventing around and inability to patent much innovation but proprietary technology is highly rated as a key source of competitive advantage and the really important intellectual assets are skills and knowledge (88% of responses), which implicates trade secrets. Another finding of this Survey is that while some companies dominate an industry by controlling key patents, others do so by holding important technology as trade secrets.

Moreover, patents are but the tips of icebergs in an ocean of trade secrets. Over 90% of all new technology is covered by trade secrets and over 80% of all license and technology transfer agreements cover proprietary know-how, i.e. trade secrets, or constitute hybrid agreements relating to patents and trade secrets. Bob Sherwood calls trade secrets the "work horse of technology transfer." The quiet role they play in IP protection is thus deceiving.

b.) The Patent/Trade Secret Interface

Trade secrets are the first line defense: they come before patents, go with patents, and follow patents. As a practical matter, licenses under patents without access to associated or collateral know-how are often not enough for commercial use of the patented technology, because patents rarely disclose the ultimate scaled-up commercial embodiments. Hence, data and know-how are immensely important. In this regard, let me cite the following persuasive comments:

•"In many cases, particularly in chemical technology, the know-how is the most important part of a technology transfer agreement." (Homer Blair).

•"Acquire not just the patents but the rights to the know-how. Access to experts and records, lab notebooks, and reports on pilot-scale operations, including data on markets and potential users of the technology are crucial." (Robert Ebish).

•"It is common practice in industry to seek and obtain patents on that part of a technology that is amenable to patent protection, while maintaining related technological data and other information in confidence. Some regard a patent as little more than an advertisement for the sale of accompanying know-how." (Peter Rosenberg).

•In technology licensing "related patent rights generally are mentioned late in the discussion and are perceived to have 'insignificant' value relative to the know-how." (Michael Ward, Honeywell VP Licensing).

•"Trade secrets are a component of almost every technology license…(and) can increase the value of a license up to 3 to 10 times the value of the deal if no trade secrets are involved." (Melvin Jager).

Patents and trade secrets are not mutually exclusive but actually highly complementary and mutually reinforcing; in fact, they dovetail. In this context it should be kept in mind that our Supreme Court has recognized trade secrets as perfectly viable alternatives to patents: "The extension of trade secret protection to clearly patentable inventions does not conflict with the patent policy of disclosure" (*Kewanee Oil v. Bicron* (1974)) and further strengthened the bases for trade secret reliance in subsequent decisions (*Aronson v. Quick Point Pencil* (1979)) and *Bonito Boats v. Thunder Craft Boats* (1989)). Interestingly, in his concurring opinion in the *Kewanee Oil* decision, Justice Marshall was "persuaded" that "Congress, in enacting the patent laws, intended merely to offer inventors a limited monopoly (*sic*) in exchange for disclosure of their inventions (rather than) to exert pressure on inventors to enter into this exchange by withdrawing any alternative possibility of legal protection for their inventions." Thus, it is clear that patents and trade secrets can not only coexist, but also are in harmony rather than in conflict with each other. "(T)rade secret-patent coexistence is well-established, and the two are in harmony because they serve different economic and ethical functions." (Prof. Donald Chisum).

In fact, they are inextricably intertwined, because the bulk of R&D data and results or associated, collateral know-how for any commercially important innovation cannot and need not be included in a patent application but deserves, and requires, protection which trade secrets can provide.

In the past — and even today — if trade secret maintenance was contemplated at all, e.g. for manufacturing process technology, which can be secreted unlike gadgets or machinery, which upon sale can be reverse-engineered, the question always was phrased in the alternative. E.g., titles of articles discussing the matter read "Trade Secret vs. Patent Protection," "To patent or not to patent?" "Trade Secret or Patent?" "To Patent or to Padlock?," etc. Anent this choice, the respective advantages and disadvantages, e.g., in terms of duration and scope of protection, are considered controlling. However, on scrutiny the perceived differences are not there. The patent life may be more or less than twenty years from filing and a garden-variety type of trade secret, far from being indefinite, may last but a few years. Nor is there a difference as regards the scope of protection with "everything under the sun made by man," (Supreme Court in *Diamond v. Chakrabarty*, (1980)), including business methods, being patentable. And while a patent does, and a trade secret does not, protect against independent discovery, a patent leads to efforts to design or invent around and a trade secret, properly guarded and secured, may withstand attempts to crack it.

c.) The Patent/Trade Secret Complementariness

I submit that it is not necessary and, in fact, shortsighted to choose one over the other. To me the question is not so much whether to patent or to padlock but rather what to patent and what to keep a trade secret and whether it is best to patent as well as to padlock, i.e. integrate patents and trade secrets for optimal synergistic protection of innovation.

It is true that patents and trade secrets are at polar extremes on the issue of disclosure. Information that is disclosed in a patent is no longer a trade secret. As pointed out above, however, patents and trade secrets are indeed complementary, especially under the following circumstances.

In the critical R&D stage and before any patent applications are filed and also before applications are published and patents issued, trade secret law particularly "dovetails" with patent law (see *Bonito Boats*). Provided an invention has been fully described so as to enable a person skilled in the art to make and use it and the best mode for carrying out the invention, if available, has been disclosed, as is requisite in a patent application, all associated or collateral know-how not divulged can and should be retained as a trade secret. All the massive R&D data, including data pertaining to better modes developed after filing, whether or not inventive, can and should also be maintained as trade secrets, to the extent some of the data are not disclosed in subsequent separate applications. Complementary patenting and padlocking is tantamount to having the best of both worlds, especially with respect to complex technologies consisting of many patentable inventions and volumes of associated know-how.

d.) The Best Mode Requirement

The "best mode" and "enablement" requirements apply only at the time of filing and only to the knowledge of the inventor(s and only to the claimed invention.

Patent applications are filed early in the R&D stage to get the earliest possible filing or priority date and the patent claims tend to be narrow for distance from prior art. Therefore, the specification normally describes in but a few pages only rudimentary lab experiments or prototypes and the best mode for commercial manufacture and use remains to be developed later. The best mode and the enablement requirements are thus no impediments to maintaining the mountains of collateral know-how developed after filing as trade secrets.

In this regard the recent holding in *CFMT v. Yieldup International* (Fed. Circ. 2003) is highly germane: "Enablement does not require an inventor to meet lofty standards for success in the commercial marketplace. Title 35 does not require that a patent disclosure enable one of ordinary skill in the art to make and use a perfected, commercially viable embodiment absent a claim limitation to that effect…. (T)his court gauges enablement at the date of the filing, not in light of later developments." Such reasoning applies of course equally well to the best mode requirement.

In Peter Rosenberg's opinion, "(p)atents protect only a very small portion of the total technology involved in the commercial exploitation of an invention….Considerable expenditure of time, effort, and capital is necessary to transform an (inventive concept) into a marketable product."

In this process, he adds, valuable know-how is generated, which even if inventive and protectable by patents, can be maintained as trade secrets, there being "nothing improper in patenting some inventions and keeping others trade secrets." And Tom Arnold asserted that it is "flat wrong" to assume, as "many courts and even many patent lawyers seem prone" to do, that "because the patent statute requires a best mode disclosure, patents necessarily disclose or preempt all the trade secrets that are useful in the practice of the invention." (*1988 Licensing Law Handbook*).

Gale Peterson also emphasizes that "the patent statute only requires a written description of the *claimed* invention and how to make and use the *claimed* invention." He advises therefore that inasmuch as allowed claims on a patentable system cover

> "usually much less than the entire scope of the system, that the disclosure in the application be limited to that disclosure necessary to 'support' the claims in a § 112 sense, and that every effort be taken to maintain the remainder of the system as a trade secret."

Besides as shown by case law, manufacturing process details, even if available, are not a part of the statutorily required best mode and enablement disclosure of a patent. And it is in this process area where best modes very often lie.

e.) Exemplary Trade Secret Cases

Of course, it goes without saying that technical and commercial information and collateral know-how that can be protected via the trade secret route, cannot include information and know-how, which is generally known, readily ascertainable or constitutes personal skill. But this exclusion still leaves masses of data and tons of know-how which are the grist for trade secrets and often also for additional improvement patents. In this regard GE's industrial diamond process technology comes to mind as an excellent illustration of the synergistic integration of patents and trade secrets to secure invulnerable exclusivity.

The artificial manufacture of diamonds for industrial uses was very big business for GE and GE also had the best proprietary technology for making such diamonds. GE patented much of its technology and some of the patents had already expired, so that much of the technology was in the technical literature and in the public domain. But GE also kept certain distinct inventions and developments secret. The Soviet Union and a Far Eastern country were very interested in obtaining licenses to this technology but GE refused to license anyone. Getting nowhere with GE, the Far Eastern interests resorted to industrial espionage and a trusted fast track star performer at GE, a national of that country, whom nobody would have suspected, was enticed with million dollar payments to spirit away GE's crown jewels. But after a while the GE employee got caught, tried and jailed. This case illustrates so much about the value of the trade secrets and, more importantly, the merits of marrying trade secrets with patents. Indeed, this case shows that GE could "have the cake and eat it."

Was GE's policy to rely on trade secrets in this manner or, for that matter, Coca Cola's decision to keep their formula secret rather than to patent it, which could have been done, damnable? Clearly not.

It is now well established that dual or multiple protection for intellectual property is not only possible but also essential. Such protection exploits the IP overlap and provides a fall back position. Recent decisions such as, *C&F Packing v. IBP and Pizza Hut* (Fed. Cir. 2000) and *Celeritas Technologies v. Rockwell International* (Fed. Cir. 1998) demonstrate this. In the *Pizza Hut* case, for instance, Pizza Hut was made to pay $10.9 million to C&F for misappropriation of trade secrets. After many years of research C&F had developed a process for making and freezing a precooked sausage for pizza toppings which had the characteristics of freshly cooked sausage and surpassed other precooked products in price, appearance and taste. C&F had obtained a patent on the equipment to make the sausage and also one on the process itself. It continued to improve the process after submitting its patent applications and kept its new developments as trade secrets.

Pizza Hut agreed to buy C&F's precooked sausage on the condition that C&F divulge its process to several other Pizza Hut suppliers, ostensibly to assure that backup suppliers were available to Pizza Hut. In exchange, Pizza Hut promised to purchase a large amount of precooked sausage from C&F. C&F disclosed the process to several Pizza Hut suppliers, entering into confidentiality agreements with them. Subsequently, Pizza Hut's other suppliers learned how to duplicate C&F's results and at that time Pizza Hut told C&F that it would not purchase any more sausage from it without drastic price reductions.

IBP was one of Pizza Hut's largest suppliers of meat products other than sausage. Pizza Hut furnished IBP with a specification and formulation of the sausage toppings and IBP signed a confidentiality agreement with Pizza Hut concerning this information. IBP also hired a former supervisor in C&F's sausage plant as its own production superintendent but fired this employee five months later after it had implemented its sausage making process and Pizza Hut was buying the precooked sausage from IBP.

C&F then brought suit against IBP and Pizza Hut for patent infringement and misappropriation of trade secrets and the court found, 1) on summary judgment that the patents of C&F were invalid because the inventions had been on sale more than one year before the filing date and 2) after trial that C&F possessed valuable and enforceable trade secrets, which were indeed misappropriated.

What a great example of trades secrets serving as a fall back position where the patents fail to provide any protection! Indeed a patent is a slender reed in light of the existence of three dozens of invalidity and unenforceability reasons and many other potential patent attrition factors, such as, "only about 5% of a large patent portfolio" having commercial value and the average effective economic life of a patent being "only about five years" (per Emmett Murtha), enforcing patents being a daunting and expensive task, only very limited or no coverage in existence in foreign countries, as well as others.

IV. The Primary Objective of IP Protection

In their talks and writings, providers of IP consultancy services focus in particular on "IP value extraction," "IP monetization," "maximizing royalties." However, this again overlooks that much, much greater gains and profits can be achieved by protection of, and exclusivity for, a company's products and processes. Exploitation of IPRs through manufacturing and sales can be

much more beneficial and lucrative than licensing-out. In an exam paper, a student of mine put it very succinctly this way:

> "Licensing is not where the big bucks are. Patentees can most often get the best value out of their patents by commercializing and marketing the technology themselves. Licenses only happen when patentees for whatever reason cannot fully exploit patents themselves. Also, when you license technology you often create a competitor."

Market exclusivity under IP protection is by far the primary and most important objective for all but a few of the biggest corporations. Entrepreneurs, start-ups, small and middle-sized companies would not last very long absent IP protection and market exclusivity. That is to say, such companies are completely dependent on IPRs for their technologies for continued survival in the market place. Licensing their IPRs would set up competitors and this is a valid reason behind the general reluctance to license-out. And pharmaceutical and biotech companies need I8Rs and market exclusivity to protect their enormous R&D investments.

As is well known, licensing normally carries little risk but also little reward. Royalty income at prevailing rates amount to at best a small percentage of net sales of licensed product, while markups on products sold under IP protection and market exclusivity could be much, much higher, by multiples, and may even reach a 1000% or more. And this is another reason for the innate reluctance to license-out IPRs. Interestingly, 97% of all patents are not licensed for this reason or because the technology they cover is not useful, feasible or marketable (Emmett Murtha).

Marshall Phelps, Microsoft's new Corporate Vice President for Intellectual Property, had this to say on the subject:

> "Our emphasis is first and foremost about the quality of innovation and then the subsequent and logical protection of that innovation. We will be investing some $6.9 billion in R&D annually. It would be foolish if we did not do everything we could to protect the output of such a large investment….This type of investment is going to generate a healthy stream of intellectual property. As with others in the IT industry, our most important IP strategy is to protect our innovations and our substantial investment in the area of R&D, through IP laws and, <u>in some instances</u> (!) to seek compensation for this investment through licensing to third parties or engaging in technology transfers with other innovators." (Emphasis added.)

My former employer, CIBA-GEIGY Corp. realized $3.5 billion in profits — yes, profits — from producing and selling Atrazine, a corn herbicide, over a 17-year period. This period coincided with the patent life, inasmuch as EPA permission to sell and patent issuance occurred in the same year. Had CIBA-GEIGY licensed the Atrazine patent, which they refused to do for obvious reasons, the royalty income would at best have been merely a small fraction of the profit that was garnered.

Interestingly, from a chart or scale of ascending reluctance or descending willingness to license out, it is clear that royalties are first or last, respectively. Willingness goes down and reluctance up from licensing a subsidiary, an associated company, in a joint venture, for cross licensing or

for royalties. Money consideration comes last and other *quid pro quos*, e.g. cross-licenses under licensee's patents covering products that can be made and sold profitably are by far preferred and often insisted upon. In fact, obtaining such cross-licenses as *quid pro quos* rather than accepting mere royalties is one of the significant recent trends in licensing/technology transfer.

And would monetization advocates ever contemplate a royalty-free license that in my experience can also be much more beneficial and profitable in terms of goodwill and increased rate of purchasing of supplies and goods than exacting paltry royalties under a patent license? At one point in my career at CIBA-GEIGY, I prepared over 20 royalty-free non-exclusive licenses to carpet manufacturer under patents I had obtained in the U.S. and Canada on an improved carpet tufting method. I did this with the expectation that these carpet manufacturers would buy more dyestuffs from CIBA-GEIGY.

A more recent telling example is the royalty-free licensing by Iridian Technologies. Iridian owns a broad patent and another two dozen patents on iris-recognition technology. They licensed them on a royalty-free basis, after deciding that the upside of software sales was greater than the downside of collecting royalties. Now they have already won contracts with Schiphol Airport and the UAE government ad other big government contracts are expected. This case also shows that giving away valuable patent rights for free can be a savvy business move.

V. General Licensing Considerations

As regards IP valuation and royalty settings in licensing, many considerations and factors play a significant role and cannot be ignored.

Vastly different values may reside in broad pioneering or basic patents versus narrow improvement or picture patents, that it is easy to design around. For competitive reasons, patent applications are filed very early after conception and reduction to practice and hence have little experimental support and cover technology in a mere embryonic stage. That is entirely different from a patent that covers a successful commercial product or process. Moreover, there is a significant difference in value between a patent that is strong and enforceable and a patent that is weak and of questionable enforceability. Furthermore, a patent that has been upheld in court as valid, will significantly gain in value. And of course values may vary widely from industry to industry. Also, in most patent transactions a package of patents (issued patents, pending applications, rights to apply for patents) is the merchandise, but the purchase price or royalty is not cumulative. Due diligence is indispensable in IP transactions which may take weeks or months and without which one may "buy a lawsuit" rather than an asset.

Contrary to common assumptions and misconceptions, it is not true that licensors can charge what the traffic will bear, licensors can recoup their R&D expenses, the cost of the development of a technology is a big factor, there are royalty standards within each industry to go by, etc. Indeed, there is a limit to what a licensor can charge and most often it is the licensee's economics, not the licensor's, that controls the royalty determination (Gordon Smith). And isn't there a 25/75% rule? Isn't licensee entitled to the lion's share because of the greater risk he/she carries, especially with less-than-fully developed technology? And above all, when it comes to royalties less is more and greed never pays off. In my corporate experience, several agreements went South because the royalties were too high, the profitability was not there and the deals

could not be sustained in the end. On several other occasions, agreements had to be renegotiated for lower royalties for the same reasons. In other words, they were not viable win/win license agreements to begin with. So much for maximizing the "royalty stream!"

Actually, the cost to licensor of the development of the technology is not a factor at all. The R&D costs of developing the technology are sunken expenses expended by the patentee/licensor whether or not it is licensed and, therefore, should not be considered in arriving at a suitable royalty. That is to say, the public's interest in buying a product is essentially unrelated to the cost of developing it (Tom Arnold, Martin Landis, Gordon Smith).

Anent royalty standards in industry and the figures often being bandied about as industry averages, John Romary called industry average royalty rates "folklore" and "suspect as a royalty-rate guide." He pointed out, for example, that "a 5% running royalty for a non-exclusive license helps very little in evaluating an exclusive license on different, but related technology and a 1.5% running royalty on technology that can be effectively designed around is equally unavailing in pegging the value of a pioneer patent critical to the competitor."

He also states that these royalty standards figures are based on the net sales price of a non-exclusive license and that a "20 to 50 per cent premium" and "as much as a 300 per cent premium…in the pharmaceutical field" may be a reasonable average for an exclusive license.

Furthermore, one should not lose sight of Tom Arnold's "100 Factors Involved in Pricing the Technology License," tabulated and discussed in *Les Nouvelles*, March '97 and commented on by Gruetzmacher et al in *Les Nouvelles*, September 2000. This tabulation is a handy checklist, even though not all factors play a role in a given technology license. He groups them under the rubrics of intrinsic quality, protection and threats of protection, values brought to the table by the licensee, IP portfolios and markets, competitive, risk, legal and regulatory considerations, and it is clear from his discussion that among the most important and weighty factors are: a) the stage of development of the subject technology (embryonic, early stage and untested v. tested and commercial); b) the strength of the IPRs (solid v. weak); and c) the degree of exclusivity (exclusive v. non-exclusive).

According to Martin Landis (of AT&T)

> "the patent royalty negotiated by the parties is determined largely by the strength of the patent itself and only secondarily, by the value of the technology. For example, a U.S. patent on a commercially significant technology may only command a low royalty rate because the most pertinent prior art, an obscure dissertation gathering dust on a library shelf in a small town, teaches the thrust of the invention, yet was never considered by the Patent Office which issued the patent." (*Journal of Proprietary Rights*, August 1991).

VI. Conclusion

In light of the above argumentation I submit that it is clear that in IP valuation one cannot ignore the fundamentals of IPRs in terms of integration strategies for dual or multiple protection of

innovation, nor the relevant fundamentals of IP licensing law and practice. If this is true and if it is also true that "business decisions (should not) end up being made by patent attorneys who may not understand the long-term commercial ramifications," as has been stated by a noted representative of the IP value extraction school, then symbiotic collaboration and teamwork between the two practices is the answer to best serve clients.

Karl F. Jorda
David Rines Professor
of IP Law and Industrial Innovation
Director, Kenneth J. Germeshausen Center for the
Law of Innovation and Entrepreneurship
Franklin Pierce Law, Concord, NH, USA

KFJ/Ruh/9.7.04