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IP AS VENTURE CAPITAL
A CASE STUDY OF MICROSOFT IP VENTURES

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I. Executive Summary

In the current marketplace, many companies are unknowingly managing their intellectual property in a Closed Innovation environment – producing, developing, and monetizing intellectual property (“IP”) solely within their company. However, there is a more effective method of managing IP: Open Innovation. In an Open Innovation model, companies license their IP to other companies and alternatively seek to license another companies’ IP to develop in-house products.

This distinction between Open and Closed Innovation is all the more important to software companies, who depend on the protection of their IP for their existence. Most of a software company’s assets are in the form of intangible assets, which could not sustain a long-term competitive advantage without the protections of IP regimes. However, this phenomenon is not unique to the software industry. By some estimates at least 75% of the Fortune 100’s total market capitalization is represented by intangible assets, such as patents, copyrights, and trademarks.¹ While much has been written regarding the importance of monetizing new innovations through patents, trademarks, and copyrights, little has been discussed about monetizing innovations which are not incorporated or maximally utilized by the company. This latter topic will be explored in detail in this article.

The following sections of this paper will examine the shortcomings of the Closed Innovation model, and specify how the Open Innovation model addresses these issues. We will also illustrate the implementation of Open Innovation by Microsoft Corporation. Microsoft, through Microsoft IP Ventures, has expanded the concepts of Open Innovation beyond licensing and cross licensing to using IP as Venture Capital. The implementation of this aggressive IP strategy allows Microsoft to capture value from its IP in a unique way.

Finally, this paper considers some improvements upon the IP as Venture Capital model as implemented by Microsoft IP Ventures.

¹ Markus Reitzig, *Strategic Management of Intellectual Property*, MIT SLOAN MGMT. REVIEW, Spring 2004, at 35.

II. *The Problem*

Software companies invest large amounts of capital into Research and Development (“R&D”) in hopes to implement innovations into existing software products, or to create new software products altogether. The problem, as illustrated by Exhibit 1, *infra*, is that often these efforts produce more technology than a company can effectively implement into its business model. Although some of this newly developed technology may not have any business value worth pursuing, profitable technologies are often not encompassed into a company’s business model for reasons unrelated to the technology’s prospects or profitability. For example, it is common for a large company to have separate processes which determine the projects a R&D team will work on, what inventions will get developed into products, and whether to patent a particular invention.² This lack of coherence between these processes can result in promising technology being undeveloped or unused.

This problem is exacerbated in a closed value chain where there is only one opportunity to implement internally developed technology. Exhibit 2, *infra*, shows a closed value chain. A company with a closed value chain keeps all of its research and innovation in-house and adheres to the philosophy that successful innovation requires complete control over its technology. Even if given the opportunity to sell the undeveloped or unused technology, this company may choose to leave the nascent technology on the shelf and protect it as a trade secret. A trade secret is a form of protection which affords the company a competitive advantage over its competitors who do not possess it.

If the innovator cannot achieve a substantial commercial gain from a new design, but its competitors could, the release of the design to the public would differentially favor the competitor and the innovator would suffer both the costs of development and whatever further costs resulted from the strengthened competition from the second firm.³

Consequently, by such logic a company may determine that the best use of a new technology is to leave it on the shelf unknown, unused, or

² HENRY CHESBROUGH, OPEN BUSINESS MODELS: HOW TO THRIVE IN THE NEW INNOVATION LANDSCAPE 27 (2006) [hereinafter “CHESBROUGH”].

³ Richard S. Gruner, *Corporate Patents: Optimizing Organizational Responses To Innovation Opportunities and Invention Discoveries*, 10 MARQ. INTELL. PROP. L. REV. 1, 51 (2006).

on reserve for later development into its own products. Exhibit 1, *infra*, represents this strategy in the concept called “Closed Innovation,” a term coined by Henry Chesbrough, a professor in the Management of Technology at UC Berkeley. Closed Innovation is a closed value chain model, as represented by the narrow end of the funnel-shape. The effect is that only selected technologies are developed into products, leaving a number of technologies at the open end of the funnel-shape undeveloped or unused.

This may strike one as a wasteful use of innovation, particularly from a shareholder perspective. Shareholders fund a company’s R&D in order “to produce valuable technologies that can contribute to the company’s success in the market.”⁴ Further, concealing promising technology is also detrimental from the point of view of the public good. Concealment is contrary to the rationale governing the patent system, which seeks to avoid such waste by creating an incentive: the benefits of a temporary monopoly power are supposed to encourage the development of technologies and the disclosure of innovations to the public. Yet despite such disincentives, companies continue to conceal promising technology. A case in point, PARC (Palo Alto Research Center), owned by Xerox Corporation in the early 1970s, led to the discovery of a variety of important innovations that are now a critical part of the personal computer including: the graphical user interface, the bit-mapped screen, the Ethernet networking protocol, other higher-speed networking protocols, and numerous other technologies.⁵ However, these innovations did not fit into Xerox’s copier and printer businesses, so the company did not develop these technologies nor did it try to capture its value through patents.⁶ While the technology was eventually disseminated, its development was delayed and Xerox did not reap the benefits. There was loss both to the public in the delay of the technology being developed and a loss to Xerox, which invested in the research but was not able to harvest its value.

The opportunity cost for a company doing nothing with promising technology is high. Today many businesses are seeing their R&D expenses grow at a faster rate than their sales rate—this growth in R&D expense is unsustainable.⁷ As development costs rise and the

⁴ CHESBROUGH, *supra* note 2, at 6-7.

⁵ EVERETT M. ROGERS, *DIFFUSION OF INNOVATIONS* 143-47 (4th ed. 1995).

⁶ *Id.*

⁷ CHESBROUGH, *supra* note 2, at 13.

length of time products are in the market become shorter, companies are finding it harder to justify investing in R&D.⁸ Consequently, companies are finding it difficult to operate under a closed value chain. The resulting paradox is that R&D is essential to a software company in sustaining and growing its competitive advantage, yet the same company finds it increasingly difficult to sustain its current investment in R&D.

III. *Open Innovation*

Open innovation is the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. [This paradigm] assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology.⁹

a. *Concept*

As knowledge gets widely disseminated the time to market has reduced. Ideas must be used with alacrity or they will be lost. Such factors create a new logic of innovation, in which the role of R&D extends far beyond the boundaries of the enterprise. Specifically, companies must now harness outside ideas to advance their own businesses while leveraging their internal ideas outside their current operations. That fundamental change offers novel ways to create value.¹⁰

The logic of an Open Innovation model solves several of the problems associated with the closed value chain model. The basis of Open Innovation is that the innovation process can be used to create value, not only from a company's product line and/or services, but also from outside business opportunities. Simply put, Open Innovation finds new ways to capture value from IP assets developed in heavily invested R&D labs. While the software industry is extremely competitive, it may be worth the risk of exposing a trade secret or licensing a patent to a competitor if the competitor would be willing to pay a license for the technology. Exhibit 3, *infra*, presents a pictorial

⁸ CHESBROUGH, *supra* note 2, at 13.

⁹ HENRY CHESBROUGH, OPEN INNOVATION: THE NEW IMPERATIVE FOR CREATING AND PROFITING FROM TECHNOLOGY 177 (2003) [hereinafter "OPEN INNOVATION"].

¹⁰ CHESBROUGH, *supra* note 2, at 6

representation of Open Innovation in which technologies may be in-sourced and/or outsourced through the company's value chain.

Open Innovation envisions a new role for a company's IP manager who is not only the protector of the company's IP, but also the strategist responsible for determining how the IP can expand the company's business opportunities. This may entail looking to using key assets, resources, or positions not only within the company, but also in other companies' businesses. It marks a shift from thinking of IP not as merely a legal device to protect intangible assets, but also as a business asset. The typical model of Open Innovation involves active creation of intellectual property along with active licensing of the property. When implementing this model, organizations can find new competitive advantages by in-sourcing or outsourcing IP.

The concept of Open Innovation is illustrated in Exhibit 4, *infra*, entitled Open Value Chain: Multiple Paths to Market. Open Innovation directly contrasts the closed value chain discussed earlier, where a company may have a valuable IP asset that never gets used because a company believes the only way to access IP is from within its own firm, and the only way to deploy IP is through its own products.

The Open Innovation model presents new challenges. First, is determining how to capture value by transferring the IP. Second is finding a suitable partner through whom a shelved technology can be utilized. Third is determining how to appropriate the ideas and technology stemming from R&D. Fourth is overcoming the transaction cost due to the lack of an efficient intermediate market to transfer the technology. Transaction costs may be a significant reason companies do not open up technologies for licensing; namely, because the costs are too high or uncertain, and the potential value is too hard to estimate. Therefore, rather than committing resources to these transactional costs, a company may choose to leave the innovation and IP to sit on the shelf unused. It is also often the case that information needed to efficiently transact with one another is unavailable, or the information is costly to obtain. Consequently, much of the exchange of technology and its associated IP occur between "a cottage industry of brokers and patent attorneys."¹¹ These challenges have been at least partially addressed by Microsoft IP Ventures' business model.

¹¹ CHESBROUGH, *supra* note 2, at 6.

b. Common models of IP monetization

While Open Innovation is a new concept, general IP Monetization is not. It has been done before and garnered some impressive value for the companies who have employed it. However, IP monetization without using Open Innovation leaves value uncaptured for both the company and society as a whole.

i. IBM

Traditional Licensing – IBM is known for its success in licensing its IP - it brings in close to a \$1 billion annually. IBM recognized the bargaining value of a robust portfolio, as well as the leverage such a portfolio could provide, when seeking to compel licensing agreements from potential infringers. Its licensing strategy is based on “substantially increasing efforts to exploit the company's intellectual property assets, mandating a narrower focus on less theoretical and more product-oriented research, and slashing the R&D budget, while simultaneously initiating a campaign to increase the number of patents the company received.”¹² IBM secures many of its licenses through the threat of litigation.¹³ Its strategy is not necessarily helping a company develop new technology; rather it is to collect royalties from a company that has already developed a feature that overlaps with one of IBM's patents.

ii. Texas Instruments

Licensing After the Fact – Texas Instruments (“TI”) was in the practice of acquiring patents to ensure that they themselves did not face infringement issues. After the creation of the Court of Appeals for the Federal Circuit, patents were easier to enforce and penalties assessed were larger. At this point, the TI management team realized that they had a large number of patents that gave them protection over some ideas other companies were utilizing. TI decided that they were entitled to some of this value and began a process to “extract fair value” from the money they spent developing or acquiring the IP by licensing it to the companies who were using it. This became quite

¹² Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. PA. L. REV. 1, 46-49 (2004).

¹³ See generally Gary L. Reback, *Patently Absurd*, FORBES.COM, June 24, 2002, <http://www.forbes.com/asap/2002/0624/044.html>.

successful and TI became an example of successful monetization of IP.¹⁴

IV. *Microsoft Background*

Until recently, Microsoft managed its IP as a peripheral activity to its business development. The primary job in IP management was to keep the company out of legal trouble. That was prior to 2003. Microsoft's management of IP dramatically shifted in 2003 when they convinced IBM's Marshall Phelps to come out of retirement. Phelps brought to Microsoft a new type of IP management, including an aggressive patent strategy, which appropriated value from considerable R&D investments and implemented new ideas on how to innovate the value chain with respect to Microsoft's IP.

Microsoft has shifted the way it thinks about the innovations coming from its R&D lab. Not only is Microsoft more aggressive in capturing the value from its research through patents, it also has innovated the way it captures value by using patents and the underlying technology as venture capital in emerging companies. Microsoft's investment in developing its patent portfolio is a relatively recent trend. Exhibit 5, *infra*, indicates the number of patents Microsoft publishes by year, up through 2005. For the last two years in which the data was collected, 50% of all Microsoft patents were published. The dramatic rise in patents published corresponds to the year in which Microsoft hired Phelps.

In 2003, Microsoft established Microsoft IP Ventures. This new division is dedicated to managing Microsoft's R&D and finding suitable investment partners.¹⁵ By leveraging its existing network, Microsoft is well equipped to find companies who could successfully commercialize its technology.¹⁶ These innovations to Microsoft's organization enabled Microsoft to further capture the value of its IP. Exhibit 6, *infra*, shows the Innovation Radar as developed by Dr. Robert Wolcott, Inigo Arroniz, and Mohanbir Sawhney of Northwestern University's Kellogg School of Management. It

¹⁴ Pamela Banner Krupka, *Patents in the Financial Services Industry: What You Need to Know: Patent Licensing as a Source of Revenue*, 830 PLI/PAT 235, 240 (Oct. 2004).

¹⁵ Telephone Interview with David Harnett, Senior Director of IP Ventures, Microsoft, in Redmond, WA. (Feb. 22, 2007).

¹⁶ *Id.*

provides a way to visualize the different dimensions in which Microsoft has invigorated its IP management since the arrival of Phelps. Microsoft increased its value capture by morphing its patenting strategy, creating Microsoft IP Ventures, and increasing its network by tapping Microsoft's vast network. Each of these developments are discussed below.

V. *Microsoft IP Ventures*

a. *Origins*

Microsoft IP Ventures licenses Microsoft Research technology to entrepreneurs and start-up companies in order to foster innovation and new product development. IP Ventures also fosters the relationships of Microsoft IP licensees and corresponding product groups, marketing teams, etc. Marshall Phelps created the group. Phelps was instrumental in developing IBM's standards, telecommunications policy, industry relations, patent licensing program and intellectual property portfolio development. His success is illustrated by IBM's current IP licensing program that generates over \$1 billion in revenue annually.

David Harnett, formerly of Microsoft's Corporate Strategy Group, currently leads IP Ventures. Today, IP Ventures consists of three people with business backgrounds and three people with technical backgrounds. The IP Ventures group works closely with Microsoft research and product groups to identify technologies/inventions that can be monetized.

b. *Microsoft Research*

"We're focusing more on research than ever. We're building the technology that will enable computers to see, listen, speak, and learn so people can interact with them as naturally as they interact with other people."

- Bill Gates, Microsoft chairman and chief software architect¹⁷

"Our researchers are here to push ahead the state of the art in computer science. When we have great ideas that work, we strive to move those ideas and

¹⁷ About Microsoft Research, Microsoft, <http://research.microsoft.com/aboutmsr/overview/default.aspx>.

technologies into Microsoft products as rapidly as possible.”

- Rick Rashid, Senior Vice President, Microsoft Research¹⁸

No discussion on Microsoft IP Ventures is complete without a discussion about the R&D expenditure at Microsoft and Microsoft Research. Microsoft spent \$6.8 billion on R&D in fiscal year 2004. It is roughly equal to the annual R&D budgets of Oracle, Hewlett-Packard, Dell, Apple, and Sun Microsystems combined. Only IBM, with a budget of \$5 billion, even comes close.¹⁹

In 1991, Microsoft Corporation became the first software company to create its own computer-science research organization. Microsoft Research is a unique entity among corporate research labs, balancing an open academic model with an effective process for transferring its research to product-development teams. "The reason we have Microsoft Research is so Microsoft will still be here 10 or 15 years from now," said Rick Rashid, the senior vice president who heads Microsoft Research.²⁰ Microsoft Research today has five labs worldwide – two in the US, one in Europe and two in Asia (*see*, Exhibit 7, *infra*).

While Microsoft Research's annual budget is relatively small, comprising \$250 million of the \$6.8 billion that the company spends on R&D, there are about 700 researchers working exclusively for Microsoft Research, which is two-and-a-half times the size of Xerox Corporation's famed Palo Alto Research Center. Twelve of Microsoft Research's researchers have been inducted into the National Academy of Engineering. Two have won the Draper Prize; three more have won the A.M. Turing Award for computer science.

In the five years leading up to 2004, Microsoft has acquired 2,188 patents to protect its researchers' work. Patent Ratings LLC (now a part of OceanTomo) evaluates patents on three main criteria: the number of unique technology claims, probable revenue and profits,

¹⁸ Microsoft Research Tech Transfers: Better Decisions Faster, Microsoft, Oct. 31, 2005, <http://www.microsoft.com/presspass/features/2005/oct05/10-31TechTransfer.aspx>.

¹⁹ Carleen Hawn, *What Money Can't Buy*, Dec. 2004, <http://www.fastcompany.com/magazine/89/Microsoft.html> [hereinafter "Hawn"].

²⁰ Benjamin J. Romano, *Microsoft Research: 15 Years of Ideas*, THE SEATTLE TIMES, Sept. 27, 2006, available at http://seattletimes.nwsources.com/html/business/technology/2003277256_msftresearch27.html.

and the likelihood that they can be defended. Patent Ratings gives Microsoft's average patent an "intellectual property quotient," or IPQ, of 123, well above the average rating. As software patents are harder to acquire, and consequently harder to defend, than hardware patents, it is especially impressive that Microsoft's average IPQ score is higher than those of hardware makers IBM and Hewlett-Packard – the two most prolific patent claimants in technology. Patent Ratings also estimates that of those 2,188 patents, 75% are original, as opposed to continuing patents. In the past decade, Microsoft was issued proportionally more original patents than either Intel (71%) or Apple (68%).²¹

The open academic model of Microsoft Research means that researchers are more or less free to pursue topics that are of interest to them rather than topics that are a great fit to Microsoft's product roadmap. This freedom allows Microsoft Research to hire and retain the best and the brightest. However, there is always pressure to make the research "relevant" by contributing to the company's product line or bottom line. This is where Microsoft IP Ventures can help. Each of the Microsoft Research labs has an identified point of contact within Microsoft IP Ventures. These contacts work closely with their contact at IP Ventures to identify the IP which can move from research labs to monetization. One significant change since Marshall Phelps started at Microsoft is the focus on patenting all the technology being generated from Microsoft Research.

c. Open Innovation at Microsoft IP Ventures

As illustrated in Exhibit 8, *infra*, licensing and cross-licensing provide the basis for Open Innovation. Microsoft IP Ventures attempts to monetize its IP using two different models of Open Innovation. The first model utilizes the traditional licensing and cross-licensing opportunities. The traditional method of licensing results in cash payments based on upfront sums, royalties, or continuing payments, while cross-licensing usually results in an exchange of IP between two separate firms. IBM represents the most successful implementation of traditional licensing and cross-licensing, with revenues over \$1 billion per fiscal year from licensing and cross-licensing alone.²² In this model Microsoft will seek out existing technology firms using or intending to use Microsoft's IP.

²¹ Hawn, *supra* note 19.

²² See Kevin G. Rivette & David Kline, *Discovering New Value in Intellectual Property*, HARV. BUS. REV., Jan.-Feb. 2000, at 3-4.

The second and most intriguing aspect of Microsoft IP Venture's Open Innovation model is the use of IP as venture capital. Typically, venture capital is defined as providing private start-up entities with cash in return for equity in that company.²³ This opportunity exists because the entrepreneur needs cash to operate his potentially high growth business,²⁴ while the cash-heavy venture capital firm wants to show its investors a high rate of return.²⁵

However, there are other forms of capital that entrepreneurs need. Entrepreneurs need human capital,²⁶ business acumen,²⁷ and intellectual property.²⁸ Microsoft is a company rich in human capital, business acumen, and intellectual property. However, as the current stock price over the past several years suggests, Microsoft's growth prospects are not what they once were.²⁹ Exchanging intellectual capital for an equity position in a high growth potential business will increase Microsoft's growth potential while providing the entrepreneur with much needed resources.

Microsoft IP Ventures seeks to capitalize on this opportunity by licensing its IP in exchange for an equity stake in a potentially high

²³ Curtis J. Milhaupt, *The Market for Innovation in the United States and Japan: Venture Capital and the Comparative Corporate Governance Debate*, 91 NW. U.L. REV. 865, 876 (1997) (citing William A. Sahlman, *Insights from the Venture Capital Model of Project Governance*, 29 BUS. ECON. 35, 35 (1994)) [hereinafter "Milhaupt"].

²⁴ *Id.* at 887 ("[t]he entrepreneur-managers receive a critically important infusion of capital.").

²⁵ *Id.* at 892-93 (citing J. William Petty et al., *Harvesting the Entrepreneurial Venture: A Time for Creating Value*, 7 J. APPLIED CORPORATE FIN. 48, 56 (1994)) ("Venture capitalists in the United States seek to invest in projects with an expected rate of return of 30% to 50% per year.").

²⁶ See Hayden R. Brainard, *Survey and Study of Technology Development and Transfer Needs in New York*, 9 ALB. L.J. SCI. AND TECH. 423, 426 (citing Stuart P. Meyer, *Exploiting Intellectual Property Assets Through Licensing: Strategic Considerations*, 468 PLI/PAT 29, 60 (1997) (outlining the disparity in resources that start-up companies, as compared with established firms, can dedicate to an intellectual property strategy)).

²⁷ See *id.*

²⁸ See *id.* (citing ALAN S. GUTTERMAN, *TECHNOLOGY-DRIVEN CORPORATE ALLIANCES: A LEGAL GUIDE FOR EXECUTIVES* 1 (1994)).

²⁹ Microsoft's stock price for the past 10 years: once a high growth company, growth has trailed off in recent years. See MSFT NASDAQ Quotes, NASDAQ, <http://quotes.nasdaq.com/quote.dll?page=charting&mode=basics&intraday=off&timeframe=10y&charttype=ohlcsplits=off&earnings=off&movingaverage=None&lowerstudy=volume&comparison=off&index=&drilldown=off&symbol=MSFT&selected=MSFT> (last visited Mar. 6, 2007).

growth start-up company. The license will be a “field of use” exclusive license, essentially restricting Microsoft from licensing this IP to other companies within the same field or market as the licensee. Additionally, this company can leverage Microsoft’s human capital and business acumen by connecting frequently with product teams and departments within Microsoft. In fact, as part of the agreement, the start-up company will receive training, documentation, and access to researchers and developers. However, the start-up’s control of the IP has its limits. Microsoft IP Ventures often times will set goals and milestones the start-up must reach, or else the start-up risks losing the “field of use” exclusivity of the IP. In all cases, Microsoft always retains the right to use its own IP.

Microsoft IP Ventures will only seek an equity position in two instances, as tracked in the flowchart, Exhibit 9, *infra*. In the first instance, Microsoft IP Ventures will approach an existing and financed start-up company which has the expertise to build or use a particular Microsoft IP. It is important to note that Microsoft IP Ventures is not seeking companies who are competitors of Microsoft; specifically, Microsoft IP Ventures seeks companies which build or seek to build products on Microsoft’s platforms (i.e. Windows, Office, etc.). To identify these companies, Microsoft IP Ventures will do typical market research analysis, similar to what venture capitalists do to identify potential investments. Indeed, Microsoft IP Ventures will be able to utilize its network of venture capitalists and government-sponsored economic development agencies.

After the entity is identified, Microsoft IP Ventures must determine if the IP provides a basis for a new product within this company. Only then will Microsoft seek an equity stake in that company. In these cases, Microsoft does not seek a right of first refusal if there is a company buy-out offer. This is because a “right of first refusal” clause will make a purchase of the company more difficult, and thus conflict with the interests of the venture capitalists or financiers of the company.

On the other hand, if the IP simply provides an add-on or enhancement to an already existing product within the start-up entity, Microsoft will only seek licensing fees in the form of up front cash payments and royalties. In both cases, Microsoft will present a “package” deal that includes source code, training, and documentation.

If Microsoft IP Ventures is unsuccessful in discovering an already existing high growth potential start-up company, Microsoft IP Ventures may seek out an entrepreneur to start a wholly new entity. In order to find the appropriate entrepreneur to start this venture, Microsoft IP Ventures will turn to its vast network of venture capitalists. After a suitable entrepreneur is found, Microsoft IP

Ventures will present an equity arrangement similar to the equity arrangement presented above.³⁰

However, it is important to note that this business model – exchanging IP for an equity stake in a potentially high growth start-up company – does not represent the full extent of our comparison between intellectual property and venture capital. In fact, from the limited information we were able to gather in our interviews with Microsoft IP Ventures,³¹ we noticed some striking similarities, but also notable differences in contract formation.

As pointed out by Ronald Gilson in *Engineering a Venture Capital Market: Lessons from the American Experience*, “all contracts respond to three central problems: uncertainty, information asymmetry, and opportunism in the form of agency costs. The special character of venture capital contracting is shaped by the fact that investing in early stage, high technology companies presents these problems in an extreme form.”³² To combat these problems, venture capital firms implement several interesting provisions. One is staged financing, which gives the venture capitalist the option to abandon the contractual relationship if the company is not performing up to expectations.³³ The second is giving the venture capitalist disproportionately more control than equity.³⁴ The third directs the compensation of the entrepreneur to be based upon “high-powered performance incentives that serve to align the incentives of the [start-up] and the venture capital fund.”³⁵ The fourth contractual provision will return control to the entrepreneur if the start-up is successful.³⁶

Microsoft IP Ventures mirrors a venture capitalist contract by implementing a form of staged financing, setting milestones and goals for the start-up to reach. If the start-up fails to satisfactorily reach these goals or milestones, Microsoft has a right to rescind the “field of use” exclusive license. This is an important provision for both

³⁰ Microsoft will seek an equity stake in the entity, will grant a “field of use” exclusive license to entity, right to market its partnership with Microsoft, access to source code and Microsoft researchers, developers, and other resources.

³¹ Of course there were important contractual provisions Microsoft IP Ventures would not disclose. Nonetheless, there was enough information to form the basis of our conclusion.

³² Ronald J. Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 STAN. L. REV. 1067, 1076 (2003).

³³ *Id.* at 1078.

³⁴ *Id.* at 1082.

³⁵ *Id.* at 1083.

³⁶ *Id.* at 1084.

traditional venture capitalists and Microsoft IP Ventures to hedge against this risky endeavor.³⁷ It is important to both Microsoft and a traditional venture capitalist to have an exit option if the start-up is not performing to expectations, thereby not tying up the cash or intellectual property in one entity.

One notable difference in the structure of the deal is in the amount of control a typical venture capitalist seeks in the start-up as opposed to the amount of control Microsoft IP Ventures seeks in the start-up. As noted above, a typical venture capitalist seeks a disproportionate amount of control-to-equity in the start-up entity.³⁸ Although Microsoft IP Ventures obtains an equity position and sits on the board of directors of the start-up, similar to a typical venture capitalist, it does not seek much control in the day-to-day business operations or overall strategy. A typical venture capitalist, on the other hand, seeks and needs this control to manage the uncertainty of the venture.³⁹ The venture capitalist is keen on knowing the exit strategy of the firm and managing it to realize returns on the investment. Microsoft IP Ventures does not treat exit strategy at the same level of importance as the venture capitalists. It takes non-voting seats on the board and leaves exit strategy decisions to management and other investors.

Of course the differences in investment mechanisms, intellectual property versus cash, drive this difference. Since Microsoft IP Ventures does not provide any cash for the start-up entity, the expectation is that the start-up will obtain its own financing or has already obtained financing through a typical venture capitalist. If Microsoft sought to obtain as much control as a typical venture capitalist in the start-up, it would be difficult for the start-up to obtain cash financing via a typical venture capitalist, as these entities require a significant amount of control. Accordingly, if a sizeable portion of control in the start-up has already been ceded to Microsoft IP Ventures, the venture capitalist may not be left with the amount of control it requires in exchange for the cash financing. This dynamic ostensibly drives Microsoft IP Venture's decision to not seek much control of the start-up entity.

Finally, the differences in the expectations of the investors help understand why this difference exists. While investors in a typical venture capital firm expect a high rate of return on their investments,⁴⁰

³⁷ *Id.* at 1079.

³⁸ *Id.* at 1082.

³⁹ *Id.*

⁴⁰ Milhaupt, *supra* note 23, at 892-93 (citing J. William Petty et al., *Harvesting the Entrepreneurial Venture: A Time for Creating Value*, 7 J. APPLIED CORPORATE FIN.

Microsoft's expectations for return on the intellectual property are less lofty.

The following section discusses three examples illustrating Microsoft IP Venture's business model.

VI. *Case Studies*

a. *Skinkers – Partnering with an Established Company*

Skinkers is a United Kingdom based company with a mission to produce market leading direct-to-desktop event notification and content delivery technology. Skinkers was founded in 2001 with the idea of delivering high value, one-to-many communications to the business desktop. The next step of their product evolution was to develop a push technology that is compatible with different platforms, such as handheld devices and cell phones. Skinkers also wanted to add internet-based real-time event notification and the ability to push large amounts of content over the web.⁴¹ The Skinkers product also adds value to content delivery by decentralizing content locations. This allows other Skinkers clients to have access to a file without downloading it from the main source, reducing download time and network traffic.⁴²

In 2006, a venture capital firm introduced Skinkers to the idea of working with Microsoft to help reach their vision. Microsoft Research labs developed a technology that would assist Skinkers in their multiplatform goal. Microsoft IP Ventures and Skinkers were able to negotiate an "equity for IP" deal that allowed Skinkers a "field of use" exclusive license for the necessary Microsoft technology in exchange for a 10% equity stake in their company.⁴³

To those familiar with Microsoft product offerings, this deal may not make sense because Microsoft offers MS Communicator, a product with similar features to Skinkers' offerings. Upon further investigation, however, MS Communicator is based on one-to-one

48, 56 (1994)) ("Venture capitalists in the United States seek to invest in projects with an expected rate of return of 30% to 50% per year.").

⁴¹ Posting of David Rowe to Microsoft Startup Zone Blogs, <http://microsoftstartupzone.com/Blogs.aspx> (Jan. 4, 2007, 18:46 GMT).

⁴² Dan Matthews, *Real Money: Skinkers*, REAL BUSINESS (U.K.), Aug. 30, 2007, available at <http://realbusiness.co.uk/archive/4777416/real-money-skinkers-.thtml>.

⁴³ Telephone Interview with Andy Kelly, Former Microsoft IP Ventures Executive, at Northwestern University School of Law (Jan. 29, 2007).

communication while Skinkers is interested in one-to-many communication. This difference allows the two products to act as compliments, rather than substitutes.

Beyond the superficial terms of the deal, this partnership created additional value. Skinkers is able to access Microsoft's vast business and technical resources. Microsoft placed a senior executive on Skinkers's Board of Directors, as a non-voting member, to advise the company on strategy and market direction. Microsoft also benefited because they were able to get positive press in the European Union. Since the technology was developed in the U.K. offices of Microsoft Research, the European Union was happy to know that Microsoft kept intellectual capital developed in Europe in a European company.⁴⁴

b. Wallop: Using IP to Found a New Company

Social networking is quickly becoming a popular offering on the web. Wallop was formed to take social networking to the next generation by solving some of the problems that plague current networking sites. Their goal is to completely revamp the user experience to allow users to connect with people of their choosing, instead of the "friend of a friend" model current sites employ.⁴⁵

Wallop offers three main features. First, the on-line experience is by invitation only, so the user can limit others from connecting with him or her. Second, it offers a great deal of customizability and multimedia content management without the need for any scripting or coding. Third, users can purchase or create "mods," which are Flash Player movies to add to their site to further express themselves.⁴⁶

These technologies were developed in the Microsoft Research facilities and then spun off by Microsoft IP Ventures. This case is different than Skinkers' because in this case Microsoft IP Ventures decided to establish a wholly new corporation, Wallop, and join-in as a partner. Microsoft IP Ventures tapped veteran entrepreneur Karl Jacob to raise the capital and start the company. Jacob had a long history of raising venture capital and advancing businesses from start-up to profitability or acquisition.⁴⁷ Microsoft IP Ventures acquired an

⁴⁴ European Businesses Strengthened by Microsoft Technology, June 5, 2006, <http://www.microsoft.com/presspass/press/2006/jun06/06-05EuropeBusinessTechPR.mspx>.

⁴⁵ Microsoft Spins out a Wallop, Apr. 25, 2006, <http://www.microsoft.com/presspass/press/2006/apr06/04-25WallopPR.mspx>.

⁴⁶ Wallop, Modders, <http://www.wallopcorp.com/modders.html>. (last visited Apr. 2, 2008).

⁴⁷ Wallop, About, <http://www.wallopcorp.com/about.html> (last visited Apr. 2, 2008).

equity stake in the company, while Wallop received the code, the patents and access to the researcher who developed the technology.⁴⁸

c. *SoftEdge – Licensed Based Partnership*

Based out of Ireland, SoftEdge is a company that specializes in e-enablement and multimedia document generation. Unfortunately for SoftEdge, the field of e-enablement and multimedia document generation is a crowded market space.

In May of 2005, Microsoft IP Ventures approached Enterprise Ireland, a government office that provides funding and assistance to Irish start-up companies. Microsoft IP Ventures was seeking to license imaging technology called Interactive Image Cutout developed at Microsoft Research labs in China.⁴⁹ Enterprise Ireland introduced them to an existing company, SoftEdge. SoftEdge welcomed the partnership with Microsoft, as they were seeking a way to differentiate themselves from the other multimedia companies.

This case is different from both Skinkers' and Wallop's. SoftEdge was an existing company and did not need a fundamental technology to build their product around. Instead, SoftEdge only needed an add-on or enhancement to their current product offerings to make them more competitive. As a result, the structure of the deal with SoftEdge was different. Microsoft offered a "field of use" exclusive license of the Interactive Image Cutout technology in exchange for an up front payment and a royalty based on a percentage of the net sales of their product.⁵⁰ SoftEdge was also given the application with a fully developed API, which they could use with their product, as well as source code and training resources. SoftEdge also benefited because it was able to access early releases of Microsoft Products and was invited to become a launch partner for Vista and Office 2007. Microsoft benefited because SoftEdge provided valuable feedback and free quality assurance testing for the new version of Microsoft Word.⁵¹

⁴⁸ Telephone Interview with Andy Kelly, *supra* note 43.

⁴⁹ Telephone Interview with Vikas Sahni, CEO Softedge Systems, in Dublin, Ireland. (Feb. 21, 2007).

⁵⁰ Telephone Interview with David Harnett, *supra* note 15.

⁵¹ Telephone Interview with David Harnett, *supra* note 15.

VII. Opportunities, Challenges, and Improvements

In contrast to the method employed by Microsoft IP Ventures to monetize its IP, is the method used by “IP investment banks.” The Microsoft IP Ventures model of IP monetization has some advantages over typical IP licensing/auctions schemes offered by IP investment banks. The biggest advantage is that Microsoft is able to monetize technologies that cannot be readily packaged and sold or licensed to another party. The licensee/partner is advantaged in IP Ventures’ model by not only getting early access to innovative technologies, but also receiving assistance from Microsoft Research teams and various groups at Microsoft to aid in getting the technology to market. Unlike the typical investment bank deals, which are typically purely transactional, IP Ventures’ partnerships are relationship oriented. Furthermore, unlike the typical investment bank, IP Ventures has more knowledge of the IP and greater interest in the success of the IP. On the other hand, some companies may view IP Ventures as a potential competitor, and as a result may be reluctant to work with it as compared to an IP investment bank.

There is very little risk incurred by Microsoft in entering these licensing or partnership deals. Microsoft has very little financial commitment to the partner or licensee, and it has a moderate amount of resource commitment. However, despite the low levels of investment from Microsoft, there is a significant amount of financial upside should the licensee or partner’s product become commercially viable. Every deal is an opportunity to commercialize Microsoft’s IP and ultimately add to an ecosystem of companies which are connected to Microsoft. This model also allows Microsoft Research researchers to continue to focus on any area of research, and then actually see it being implemented commercially.

In addition, the partners or licensees tend to use Microsoft’s platform to launch their products. Therefore, in the process of developing the product, the partners will necessarily be testing and providing feedback on core Microsoft products. For example, Skinkers was a Microsoft Vista launch partner and SoftEdge Systems was an Office 2007 launch partner.

The partners will not only have a jumpstart on their competition through the technology license, but they also have the opportunity to reference experienced Microsoft business and technical resources. In partnership deals, Microsoft IP Ventures will have at least one non-voting seat on the board of the company.

Microsoft also generates non-market value, in particular its trademark or brand value. The partnerships enable Microsoft to develop goodwill in the technology start-up community, thus

increasing the probability more start-ups will use Microsoft platforms to develop products. It also creates goodwill with regional economic development agencies. The Skinkers deal is a great example of this. The deal created a good deal of positive press at a time when Microsoft was facing a case brought by the European Union for alleged antitrust abuse.⁵²

The key challenge for Microsoft is that its model of IP monetization is not easily scalable from transaction to transaction. Every deal is unique and requires a fair amount of due diligence and time commitment upfront.

To improve Microsoft IP Venture's current business model, we believe that Microsoft can proliferate its brand by creating a specific logo program for all products that use IP licensed from Microsoft. In an interview with Vikas Sahni, CEO of SoftEdge Systems, he indicated a program similar to "Intel Inside" would be very valuable for his product, an add-on feature to Microsoft Word. However, Microsoft IP Ventures did not feel the need for a separate logo program. David Harnett of IP Ventures felt that existing product logo certification programs were sufficient.⁵³ He felt that having a separate logo program may create confusion in the minds of end consumers as to whose product it is. Furthermore, being that Microsoft does not retain express control in the start-up, it would not be able to regulate the quality of the product being released. Despite this, we believe there is an overall positive value in a separate logo program, such as "Powered by Microsoft Research." For a company like SoftEdge Systems, this logo program will offer additional differentiation for its product helping its product in the marketplace, while Microsoft can increase customer mindshare regarding innovation and strengthen its brand.

⁵² Telephone Interview with Andy Kelly, *supra* note 43.

⁵³ Telephone Interview with David Harnett, *supra* note 15.

Exhibit 1: Closed Innovation

Closed Innovation

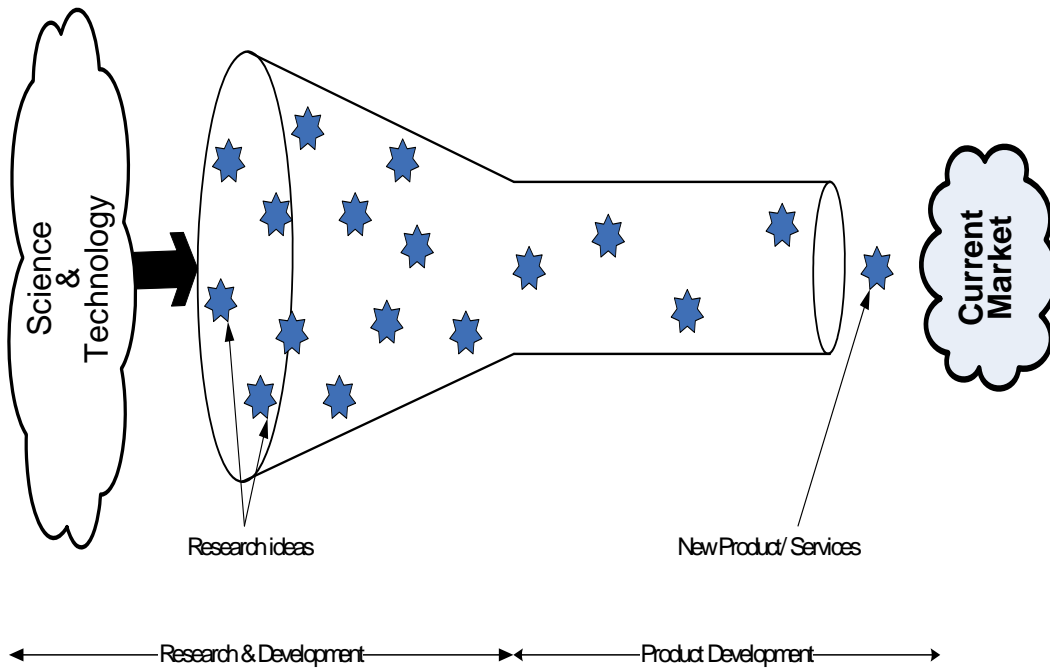


Exhibit 2: Closed Value Chain: Internal Path to Market

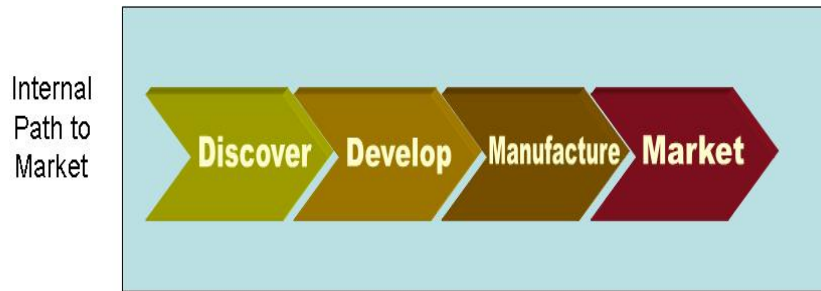


Exhibit 3: Open Innovation

Open Innovation

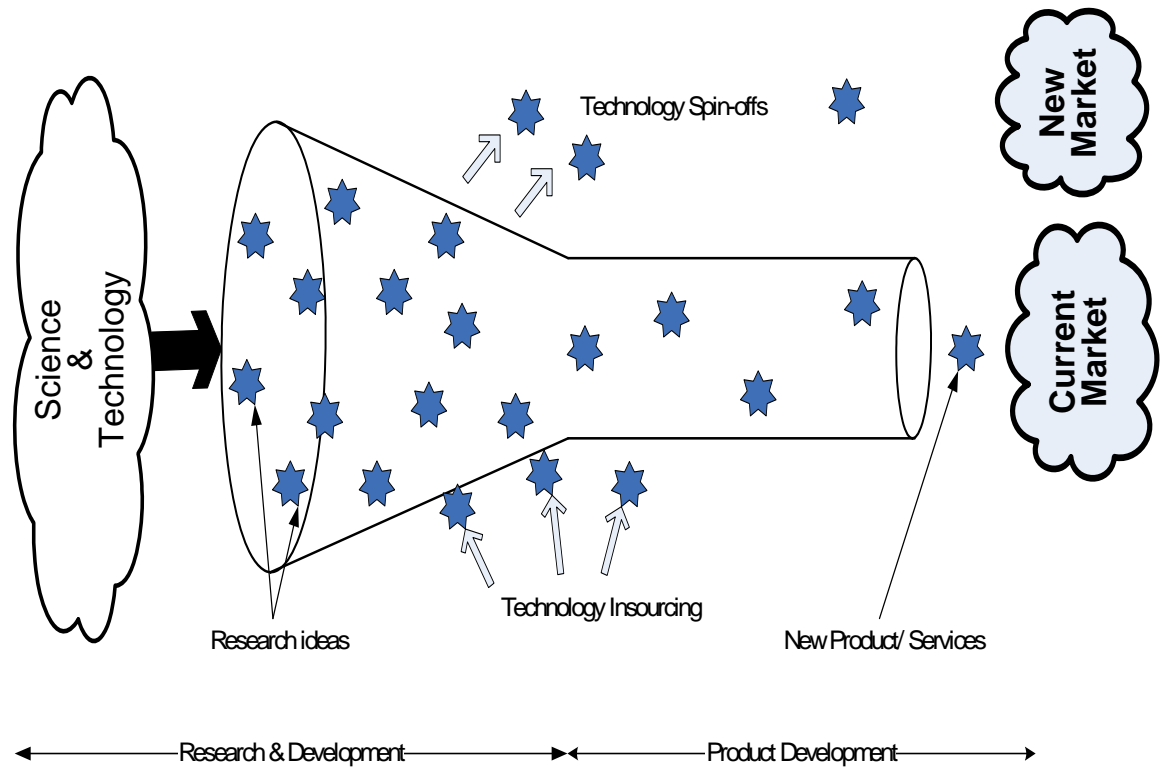


Exhibit 4: Open Value Chain: Multiple Paths to Market

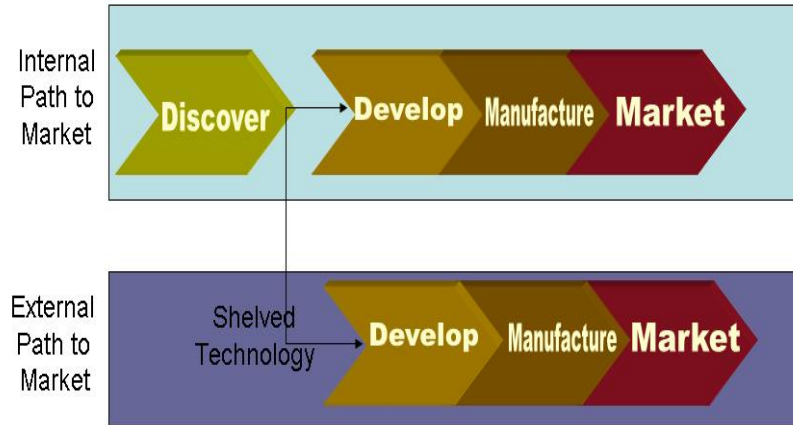
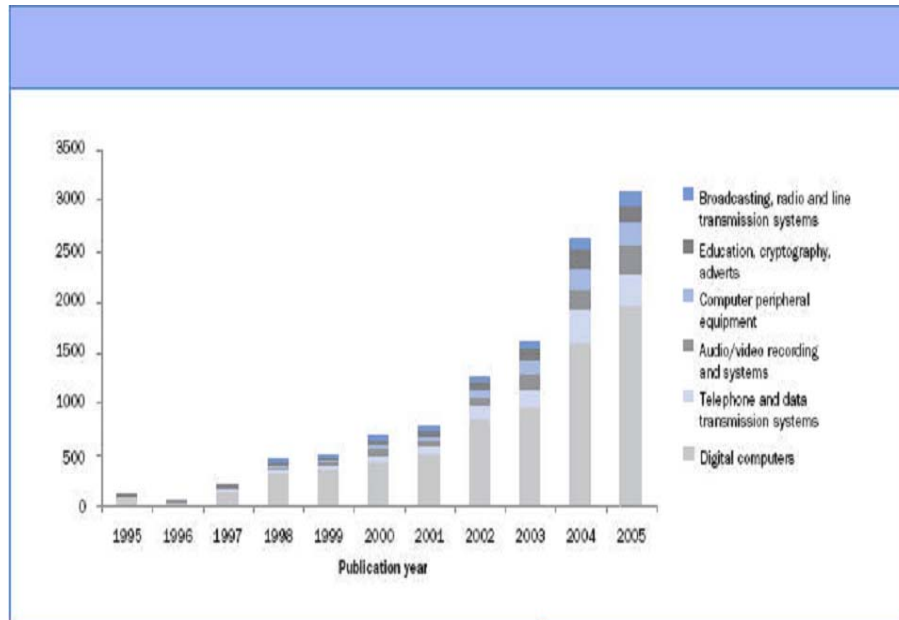


Exhibit 5: Microsoft Number of Published Patents

54

⁵⁴ Bob Stembridge, Back to the future: tacking patents to see where the path leads, http://www.buildingipvalue.com/06intro/013_017.htm.

Exhibit 6: Microsoft IP Ventures on the Innovation Radar

Innovation
Radar



Value Capture – Appropriating research by patenting more
Organization – IP Ventures, new division to commercialize shelved technology by transferring technology outside the company.
Networking – Working w/ new State Agencies like Enterprise Ireland and VC's to find emerging companies to partner with
Brand – Yellow line equals potential, through our suggestion in last section.

Exhibit 7: Microsoft Research Labs



Exhibit 8: Microsoft IP Ventures Innovation Model

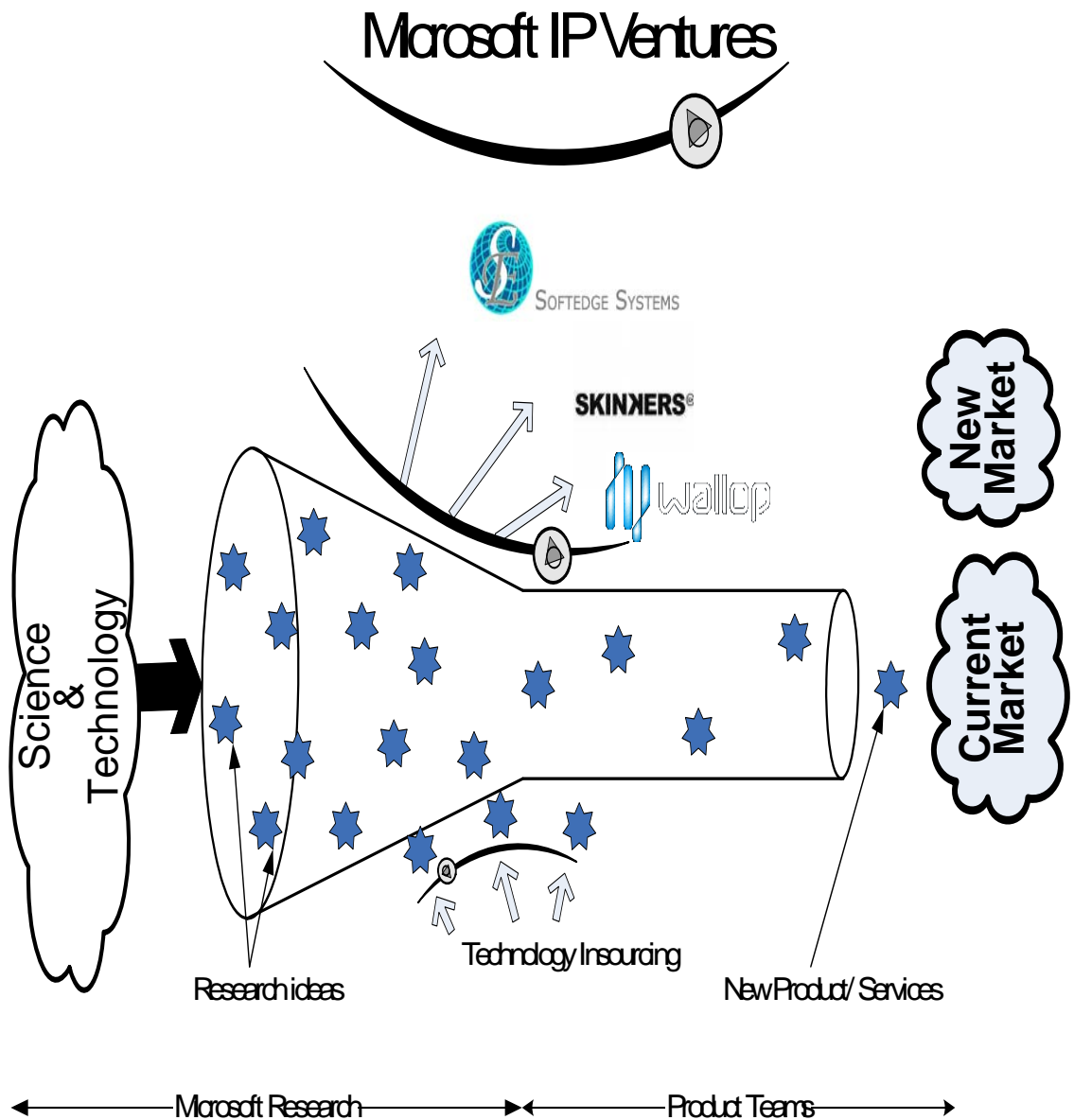


Exhibit 9: Value Capture Structures

**Microsoft's Innovation Model for Commercializing New Technology:
Value Capture Structures**

