

# Open Innovation and Co-Innovation –Enablement Platform Processes to Align Innovation to the Right Business Model



## Applies to:

SAP Co-Innovation Lab

## Summary

This article provides a brief introduction and summary of the basic tenets and framework associated with the concept of open Innovation. It further describes a co-innovation enablement platform (CEP) for ecosystems-based innovation, designed to support alliance formation, governance and implementation, which can be leveraged by a firm to execute against its open innovation strategy. The CEP as an organizational unit offers a bundle of resources and capabilities along with explicit border spanning processes which support the open innovation requirement to emphasize selection of the right business model and IP strategy necessary for alliances to derive optimal benefits from successful co-innovation.

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**Created on:** 20 September 2010

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## Introduction

A simple search query of Open Innovation on Amazon.com™ quickly reveals over more than 20 titles penned in the last seven-plus years beyond Henry Chesbrough's originating work *Open Innovation*, published in 2003. A Google search using these same two keywords yields approximately 66 pages of 14 to 15 links each, all directly or indirectly referencing some dimension of open innovation. Written evidence abounds to suggest that this concept is widely viewed as vitally important and well considered as a valid paradigm for how companies in the early part of the 21st century should drive innovation to bring value to customers that, in turn, will precipitate continuous growth and sustained profitability.

Chesbrough's own work offers proof points demonstrating the value and impact of open innovation with a number of case studies featuring leading companies, including IBM, Intel, Air Products and Procter & Gamble, that not only transitioned from closed to open innovation processes but garnered significant economic benefit as a result. It is therefore simple to see why many firms would seek to follow suit and develop an open innovation approach to increase the frequency and success of innovation initiatives. For any executive or business manager who carefully studies the case work and ardently attempts to understand open innovation methods, it will all undoubtedly read as a pragmatic and clear, logical approach.

Yet, despite an offering of very sound arguments and well-articulated descriptions of what open innovation is and how it can be implemented, there is still no guarantee that a well-established firm will experience success from such a transformation in the same way as others have done. Even fledgling starts ups, which from inception must embody some open innovation principles like using pooled resources of intellectual property (IP) from its supply chain vendors to extensive partnering with larger companies, simply because of the effects globalization has on establishing and sustaining competitive advantage. The emerging company can become distracted or its resources become constrained to the point where attempting to adhere to prescribed, core open innovation methods and tenets represent a considerable challenge. To implement open innovation means to view the endeavor as a set of best practices requiring application of a firm degree of discipline and a willingness to develop the correct set of measures that will tell the firm when its open innovation efforts result in success. The transition from closed to open innovation is a process that requires adequate time to plan, implement and execute. Even for the firm wishing to expand upon an existing open innovation foundation, it would be rare for such change to dramatically happen all at once given that there are multiple dimensions comprising the open innovation framework.

Open innovation offers a framework for structure and process required to open a firm's business model and facilitate the capture of external ideas but it must be evolved over time with executives and business managers across the company committed to its execution.

This paper seeks to identify how a firm engaged in ecosystem innovation can leverage a dedicated co-innovation enablement platform (CEP) in which to serve as framework to gain advantage of outside-in innovation pursued through its strategic alliances. The open innovation paradigm is comprised of a different knowledge landscape predicated upon a different logic about the sources and uses of ideas (Chesbrough 2003). The act of co-innovation is a deliberate effort to make use of internal and external knowledge in a timely way and to creatively collaborate with partners in new and different ways through co-contributing complimentary IP and other tangible assets. Additionally, the CEP serves to help accelerate innovations made possible through alliance-based collaborations. What we wish to examine more closely is how a CEP can serve such collaborations and meaningfully contribute to a technology firm's ecosystems strategy.

Strategic alliances are commonly used to push a firm's IP into the market through external channels as a part of an ecosystem strategy and represents significant opportunity for firms to generate value (Kale, Dyer, Singh, 2002). The majority of such efforts however, tend to focus upon licensing technology to partners that develop complementary business solutions, followed by specific reseller and support agreements. An emerging opportunity now exists for a technology firm to more formally use its alliance partnerships to develop innovative technology and business models using a co-innovation enablement platform to drive higher degrees of integration and interoperability among complementary technologies.

Equally the CEP can be used to incubate an ecosystem partner to co-develop solutions as a complement to the focal firm's technology, or to grant a select partner access to recent IP generated from R&D never acted upon, in instances where the partner is capable of injecting value into a partner firm with potential or capacity to create or reach new markets not possible through the focal firm's existing business model. It is therefore useful for the open innovation firm to remain carefully focused upon the business model and its importance to capturing value from technology (Chesbrough 2003). With an open innovation approach, IP management must be connected to the technology lifecycle and the business strategy. An effort will be made here to offer

some useful guidance for how the CEP can be used to demonstrate how co-innovation becomes a viable model for a firm to employ in its committed efforts to ensure open innovation success.

## Open Innovation Basics

This paper directly examines the relationship between co-innovation and open innovation and how co-innovation efforts support the open innovation firm. There are two aspects of open innovation that are most relevant to this relationship; the importance of the business model and the value of linking intellectual property strategy and management to the technology lifecycle. Before beginning this discussion, however, it is perhaps useful to provide a summary view of open innovation for the reader to understand its most relevant components in the context of the broader principles.

A major goal of open innovation is to bring innovations to market and create value from a company's intellectual property. This has of course been the goal of the modern corporation for over a century, yet open innovation stands in stark contrast to the traditional closed innovation model where a company's own research results are used exclusively to create new innovations and products. It is only in the last 25 to 30 years that firms have more fervently sought to create and develop inventions and innovations from knowledge sources from both inside and outside the firm's own boundaries.

Closely aligned with taking advantage of external IP and complementary assets, it is equally core to the open innovation paradigm that a firm does not purposely manage its IP to exclude rivals but instead seeks to profit from others use of it and that this is made possible from realizing that the value of an idea or a technology depends upon its business model (Chesbrough 2003). The use of external innovations to augment a firm's existing knowledge and core competencies becomes successful when correctly applied to the right business model and the correct business model is formed when the firm properly defines and structures its own value chain and realizes where it is positioned within this value chain relative to its partners, suppliers and customers from which it can source complimentary assets (Chesbrough, 2006).

A business model is part of an overall business strategy but it is equally an assembly of management disciplines related to competitiveness, products and operations (Johnson,

Sinfield, Altman, 2008). By comparison, Chesbrough's view of the business model injects the need for sensitivity to the structure of the firm's value chain and where the firm is positioned within this chain. Chesbrough suggests that it is through the business model that not only can ideas be harvested from both inside and outside of the firm, but that the go to market effort behind any commercially successful innovation can also occur from inside and outside of the firm. Harvesting ideas from the inside and the outside of an organization means extending beyond the more traditional role of a knowledge generator but to additionally perform knowledge brokering among, partners, suppliers, universities, and customers.

## An Open Business Model

Open innovation companies exalt the business model as crucial to capturing technology value. In doing so, the firm must not only realize consistent growth and profitability from employing an already-familiar business model in which to realize success from its innovations, but it must equally work to avoid the imminent failure resulting when the necessary business model is not obvious. As Chesbrough indicates, defining the business model requires managers to link the physical domain of the technical inputs to an economic domain of outputs (Chesbrough 2003). Such an important linkage is made possible through the formation of a useful set of heuristics, which serve as a cognitive mapping between these two interdependent domains. The same two technologies taken to market with different business models will perform differently meaning that the superior technology itself does not always prevail. One fitting example of this being MS Windows 3.1 dominance over IBM's OS2 operating system during the rise of the PC industry in the early 1990s. Despite the irony that OS2 was in fact a joint development between Microsoft and IBM beginning in 1985, a combination of relationship difficulties and Microsoft making astute decisions such as quickly developing crucial device drivers and establishing a protected mode to DOS and multithreading capabilities, granted it the opportunity to build a large, pervasive and successful OEM business for Windows and Windows NT.

For a firm to open its business model is to accelerate the flow of ideas and to ensure ideas can be directed on to a successful pathway of convergence. As described previously, the value of a given technology is predicated upon the business model it is harnessed to. But if the firm with a specific technology derived from its own R&D effort cannot readily affix it to its own well-understood business model, then the idea could remain seated on the shelf of a lab with no future (Chesbrough 2006). To overcome this limitation, an open innovation firm must embrace opportunities to extend its IP through others to take advantage of intermediate markets. This is however not always a simple task as information about innovations available through sale or trade is limited. The demand for this information is apparent, and has in recent years spawned a new industry of IP exchanges. What will increase the flow of information further is when more open innovation-minded firms begin to engage more frequently within their own value chains comprised of an ecosystem of partners, customers and activities pursued within various innovation communities and networks.

## The Value Chain

Since different companies possess different assets, resources and positions, these differences cause companies to look at opportunities differently (Chesbrough 2006). A firm that is upstream in a value chain can license its technology downstream to others, which then add value, leading to the success of the licensed IP. Unlike how IP is managed in a closed innovation model, open innovation contrarily looks for those instances where the business model dictates that a firm should not protect all its ideas in order to create value. This is why it is so crucial for a firm to correctly define its value chain and to know its position within it so that it can link the underlying IP of a technology lifecycle to efficiently managing the IP. Most companies apply a technology lifecycle to the IP they develop. Researchers such as Messrs. William Abernathy and James Utterback consider it fundamental to managing technology, and hence, developed a commonly applied model comprised of four elements:

- Initial Design - Selection phase, which technology will be driven to market
- Dominant Design- Growth phase, sustaining innovation
- Maturity- Maximum revenues obtained, market slows
- Obsolescence, declining phase

This model can be used to more efficiently identify in the early stages of development, which of a firm's IP assets must be rigorously protected and secured versus those which have recognizable value but are not aligned to the firm's current business model. The key success factors for the technology in one phase are not necessarily the key success factors in another phase (Chesbrough 2006). A business model formulated with the principles of open innovation better equips a firm to commercialize and monetize intellectual property developed in-house by making a point of getting underutilized IP into the hands of business partners or universities that can make such an outcome possible. In the text *Open Business Models*, Chesbrough points out as an example, that 35 projects left Xerox as some form of spinoff after Xerox concluded that the technologies core to these projects did not fit the company's business model. Eleven of the thirty-five spinoffs resulted in a combined net worth exceeding Xerox's total market value by a factor of two (Chesbrough 2006).

## IP-Enabled Business Models

There are two principal ways in which IP-enabled business models are formed:

- 1.) Use of IP as a pure-play, where the chief capability of the organization is its ability to create, own, market and sell IP to other firms
- 2.) IP-based business model companies, where firms innovate on the concept of a business model in addition to approaches relative perspective businesses.

The business model relies upon external parties to commercialize the IP asset. Additionally, licensing technology depends upon the firm's own IP strategy, which will define the role of the IP for both the innovator and all potential licensees. The innovator must develop a business model consistent with both the value of the IP and the innovator's position in the value network (Chesbrough, Vanhaverbeke, West, 2006).

As previously indicated, it is clear that a large firm will view its new technologies through the lens of its current business and associated business models. Yet to embrace an open innovation approach of continuously seeking to buy and sell IP, the firm creates a business model suitable to successfully commercializing its IP, and on occasion different IP assets may require different business models. The open innovation firm will come to recognize this whether it internally develops a new business model that will optimize the value of its IP and goes to market directly, or it identifies opportunities which allow some other firm's business model to capture the value realizable from the innovation.

Such an approach underscores the open innovation process. Chesbrough as well as other advocates of this paradigm submit that companies placing such IP-enabled business practices to work will expand opportunity through creation of intermediate markets and reducing the under-utilization of their own R&D-based IP. Nonetheless, significant questions do emerge that make such an approach challenging. For instance, when a company brings in an external technology to its business, it must carefully assess whether it has the ability (legally) to use the technology without infringing upon the rights of another (Chesbrough, 2006).

There exists a variety of methods and tools firms can apply to the management of IP. When properly integrated with the business strategy, how a specific IP component should best be managed at a given stage of its development can be best determined through mapping its relationship to the value chain correctly. The IP management process employed may call for rigid protection via patent, trade secret, copyright, trademark or some combination of all these elements (Gollin 2008). If so, it will equally require the capability and willingness to actively guard from infringement. Some IP will be viewed differently and in some instances it will be evident that the optimal value to be derived will come from directing an IP asset upstream or downstream relative to the firm's position within its own value chain. As such, the firm may pursue full or partial transfer of IP rights of an asset; or pursue joint works and collaboration where the IP is licensed or cross-licensed in addition to determining controlling rights and licensing of foreground IP derived from a collaboration project.

There is a wealth of prior literature examining the topic of open innovation, but none of it concludes that implementations is easy to do no matter what sort of company attempts it, large, small, well known or largely unknown. To execute an Open Innovation strategy requires discipline to diagnose where the firm can create the most economic value (Tuff, Jonash, 2009). Success may be dependent upon the type of company, its IP, value chain and the degree of experience and trust a company has established with its ecosystem of partners and customers.

Foundational to an IP-based business model is to understand the value of the IP at its different stages of development and knowing how it will be managed at each of the stages of a given technology's lifecycle. Within the context of open innovation, it will be the IP that is sourced externally or directed into the possession of others throughout licensing or through collaboration with organizations external to the firm that will differ by firm, industry and engagement with respect to how IP rights are controlled, assigned and valued.

The scope of this paper does not include an extensive survey of the extant literature targeting open innovation. It does however draw from experiences gained from the field by its author in developing co-innovation projects and where this activity clearly serves to execute against an open innovation strategy. Highlighted so far is a fundamental description of what is core to the open innovation paradigm, why so much emphasis is placed upon the importance and value of the business model, and why IP management must become an integral part of the business model, technology lifecycle and of the business strategy. Nonetheless, these few critical components of open innovation can be viewed as a cornerstone to further

examining how alliance-based co-innovation supported by a discrete co-innovation enablement platform can equip a firm to harness external ideas and complementary assets from its ecosystem of partners to pursue project-based innovation. It represents the distinct possibility for an open innovation firm to extend its IP strategy beyond licensing out the firm's existing IP as the only way alliances can be used to reach new markets and customers.

## Common Ground for Strategic Alliances

The path of licensing out the firm's technology is often a principal focal point of a strategic alliance and a common practice; but can strategic partnering include frequent collaboration and co-development to create and go to market with innovation that returns significant economic and market value to each of the parties? New results derived from co-innovation pursued by the partners as opposed to merely cross licensing existing IP. Clearly a focal firm, through its strategic alliances, can work with a variety of partners to cooperatively share IP and knowledge to secure and expand existing markets. It can drive penetration into new accounts, uncover new opportunities as well as to more handedly manage encroachment from emerging companies with alternative solutions. The need to license out is essential if merely for the fact that the impact of the speed with which rivals are able to imitate a pioneer's innovation can have on the choice to license or not to license (Hill, 1992).

No argument is offered here to suggest that more complex co-innovation replace the licensing of pre-existing IP which commonly occurs through strategic alliance, but that project-based co-innovation can be more carefully woven into an existing alliance strategy to benefit from increasing outside in innovation. This is a worthwhile consideration as viewed within an open innovation context but its value may be further understood by first evaluating some common dimensions of how a firm engages alliance partners to construct licensing deals of benefit to both the licensor and the licensee.

A large independent software vendor (ISV) can choose to license its software to a smaller partner that has developed a software complement, making it possible for the licensor ISV to see its software deployed into a specific industry or vertical market. Through partnership, the two firms can devise a targeted go-to-market program that includes a reseller agreement and after sale maintenance and support. The same ISV could just as readily work with a large hardware vendor to certify a complex solution based upon high-performance or high availability standards as a way to increase competitive advantage for both firms. Equally common is when an ISV teams with a systems integrator (SI) where the SI adds service value relative to mapping a customer's business processes to the functions of the ISV applications.

While more complex an elaborate integration schemes are possible and often attempted, a vast majority of strategic alliances become predicated upon licensing deals comprised of existing innovations. Large companies consistently demonstrate that such alliances and deal arrangements contribute to revenue and growth. But in terms of innovation, such schemes are primarily focused upon augmenting the value of sustaining innovation, and best represents incremental improvements made to existing technology and business process. Clayton Christensen's research has resulted in the common understanding that the largest, most entrenched firms continue to drive incremental value upstream to the firm's largest customers, where growth and revenues occur as a result of technology perhaps first created many years prior. As such, it is the young, emerging firm that delivers the disruptive innovation capable of unseating an incumbent. This has of course spawned an abundance of new literature attesting to the realization that large firms must pursue disruptive innovation too if they expect to grow.

Traditionally, we see this occur with the larger established firms through an acquisition strategy, and more recently, in the form of companies funding start-ups of interest through in-house venture capital. Internal R&D and acquisition cannot however, always be relied upon to drive innovation to desired levels; especially that which makes disruptive growth possible. It may therefore be the strategic alliance that is the most logical way to innovate further and to do so quickly in order to preempt or more carefully manage the impact globalization has on a firm's ability to increase and sustain its competitive advantage.

## Co-Innovation Enablement

Complex collaboration can represent major challenges to participants in an attempt to allocate the rights to future intellectual property (Gollin 2008). This is difficult, because at the time of entering into the collaboration, it is not always clear who will do what work, what intellectual property will be created, if any, and who will actually succeed in being the creator.

Nevertheless, good strategies are available by which each party may retain control over that which is most important to its future activities. In instances where two or more alliance partners join together to co-develop new IP, several questions immediately arise. Should the firm that thought of the new idea first, get the controlling rights to it? Or does the firm with the most compelling business model to exploit it get the controlling rights? Do all participants in the effort to create the IP get to use it on a royalty-free basis? And if a cross-license is granted, is it only for the new IP or must the license include any underlying background IP from the collaborators needed to implement the jointly created innovation? In 1986 researcher David Teece posited that the use of external innovation sources was dependent upon appropriability. For the uninitiated reader, appropriability simply put is the interest a firm has to fully control intellectual property assets. Some scholars argue that too much appropriability inhibits open innovation unless deliberate measures are taken to address it (Chesbrough, Vanhaverbeke, West, 2006). IP management in an open innovation model is challenging.

Firms working in the context of partnership or strategic alliance will err on the side of only being as “open” as necessary. These firms will not always clearly view what constitutes critical, proprietary IP that it must protect at all costs versus what can be considered open for sharing (Tuff, Jonash, 2009). The failure to map IP to a relevant and useful business model and understanding the value of IP throughout the technology lifecycle, leaves firms at the disadvantage of having to protect all IP all of the time if there is no IP strategy and intellectual property asset management process implemented to do so.

Enter the Co-innovation Enablement Platform (CEP). There is perhaps a number of ways in which to envision the use of such a platform. Without question there exists a variety of prototyping and demo labs commonly hosted by technology companies which share similar attributes to a CEP. There are perhaps as many implementation schemas possible as well. It could be as simple as two developers coming together representing both parties using independent lab or IT resources. Or in the interest of needing to develop against enterprise class IT requirements, the two partners might elect to pursue an innovation project by collectively purchasing computational resources from a cloud vendor like Amazon™.

For the purpose of this discussion the intent is to demonstrate the contribution of a CEP to enabling alliance-based co-innovation projects, where the focal firm physically invests in the creation and implementation of its own CEP. While much scholarly effort has examined alliance formations and that such formations have long been leveraged by firms to collaborate and co-develop extensively in environments characterized by continuous innovations, less attention has been paid to new organizational forms for enabling alliances. The CEP can represent such a discrete organizational form within the firm that seeks to benefit from project-based co-innovation within its resources and capabilities critical to alliance formation, design, and implementation:

1. **Hardware infrastructure-** an enterprise-class-capable, computing lab featuring bare-metal servers, blades and virtual machines with multi-core processing and multiple gigabytes of RAM, multiple terabytes of SAN storage, 10/100GB fast-switched Ethernet backbone all with an administrative and management layer to securely support and manage several concurrent innovation projects each comprised of variously configured software landscapes featuring the focal firm’s software applications.
2. **IP framework-** the platform is supported by its own co-innovation agreement and subsequent Statement of Work (SOW) template. The contract contains recognizable elements like definitions, terms, indemnification, and limitations on liability, as well confidentiality and proprietary rights. In this instance though, emphasis is placed upon formulating the default terms to be highly bilateral in design where ownership and controlling rights while of importance, are specified based upon the overall business model and go-to-market intentions underlying the co-innovation project.
3. **Subject Matter Expertise (SME) -** expertise accessible to the co-innovation partner is available in two forms. The first is directly provided by the CEP operation, specializing in the day to day operational aspects of the data center lab and for basic installation and configuration of the focal

firm's software landscapes required to support the project environment. In some instances, CEP infrastructure engineers possess additional skill sets relative to networking, virtualization, security, mobility and core application that can be contributed to the project. Second, additional SME access is made possible through knowledge brokering performed by the CEP operations team. The CEP therefore acts as an intelligent interface to connect partner and project SME requirements to different domains, business units and other innovation communities within the focal firm.

4. **Operations/Project Management-** the CEP features a dedicated operations and project management team. This team ensures day to day management of the data center lab, business development, contract management and overall resource management. It provides key marketing capability relevant to demo and showcasing innovation results and performs necessary knowledge brokering needed to support co-innovation projects hosted in the lab. CEP project management targets the support of co-innovation teams pursuing projects in the lab with development and delivery of project requirements that must be met by the lab. The CEP project manager orchestrates the initial project design and fits project requirements to the lab resources and oversees completion of all deliverables such as white papers and solution demos.

These primary attributes make the CEP a compelling proposition in that the impact associated with marshaling resources; developing contracts and coordinating underlying project complexities can be minimized allowing the focal firm and its partner to focus on the innovation effort itself. Such efficiency gains derived from the CEP can also contribute to accelerating the innovation process and for bringing innovations to market or to a target joint customer. The underlying CEP process acts as a useful mechanism for consistently examining the relationship between the technologies of a given innovation and pinpointing the best business model to derive value from the innovation. Lastly it offers an opportunity for the firm hosting a CEP to explore different ways in which to share IP with partners optimally suited to drive the commercial success for a given innovation.

## Co-Innovation Enables Open Innovation

Co-Innovation efforts in the broadest sense of the concept can cover a variety of ways in which partners seek to collaborate. Such efforts will range from differing degrees of out licensing and go to market initiatives where one partner's technology or service augments another within a targeted market or industry. More complex collaborations can occur driven directly out of a firm's product development organization that could include some degree of physical integration between two (or more) technologies governed by some form of software development cooperation agreement. What will be described here is project-based co-innovation made possible from the creation of a co-innovation enablement platform that a firm can use to enable ecosystem-based innovation with its relevant partners.

The CEP operations team manages a governance process in which to evaluate project proposals originating from business units within the firm, from partners or from the firm's customers. It is this governance process that drives selection and prioritization of a project. The projects selected will invariably be influenced by the firm's own strategies and business goals, those of the partners as well as from the politics and social dynamics exhibited by the key participants and stakeholders. The key performance indicators (KPIs) assigned to the CEP management team will also be a factor in the selection process. A goal to complete a set number of projects per year, completing a certain number of projects by partner type (e.g., ISV, SI, hardware vendor), or type of project (e.g., proof of concept, integration, new development) can all influence the selection process.

In the interest of using the CEP as a means of uncovering disruptive innovations leveraging external ideas and complementary assets, the CEP-enabled firm should strive to ensure that the CEP KPIs are not constructed in such a way as to only emphasize output that can result in revenue growth on a quarterly basis. To constrain the innovation process to three month intervals is unlikely to yield a significant disruptive result. Again, how the CEP is ultimately used by a firm that invests in such capability will vary, but in an effort to practice true open innovation the best use of the CEP will take advantage of sharing its IP in many ways regardless of the time necessary to evolve an important innovation with one or more partners.

Setting the aforementioned factors that influence project selection aside, the governance process employed by the CEP operations team must be used to evaluate both the economic and technical feasibility of the project. The authors of the proposal must sufficiently identify the relevant systems, technologies and architectures underscoring the project's scope and objectives. While it is of course not possible to predict a successful outcome from an innovation effort, it is essential for the selection process to employ some degree of risk management to the process of identifying if a proposed project has equal or better potential than other proposed projects being considered in parallel.

The operations team for the CEP must equally assess if the requirements of the project can be met by the lab's resources. Assuming technical feasibility is possible, the business goals driving the project is of major importance. Again, the firm hosting the CEP can inject varying amounts of influence.

On occasion the host firm can act opportunistically and subsequently value its own business goals over that of the partner it wishes to collaborate with on the co-innovation project. In other cases, the CEP host may simply value enabling its ecosystem of partners to leverage its own knowledge and resources to accelerate innovation that results in deeper and ongoing adoption in the market of its technology products and services. Whichever the reason, from a governance perspective careful consideration of the business objectives and linking the proposed innovation(s) to the right business model is essential. This aspect of the CEP governance process offers an exceptional opportunity for a firm interested in open innovation to consistently put into practice, the ongoing effort to cultivate ideas from outside the firm. The same process can also assess where the IP collaboratively derived from the best of these ideas, best fits in terms of the business models employed by the participating parties.

Providing the business model is correctly identified and agreed to, the other aspect of the co-innovation project that occurs either in parallel or directly after project selection is development of the co-innovation agreement and most importantly this contract's various IP provisions it contains to manage the use of background IP introduced to the project and any foreground IP resulting from the collaboration between the parties. It was mentioned earlier that the spirit of true co-innovation embodies the basic tenets of open innovation; to take advantage of external ideas and resources as well as ensuring that the IP foundational to a given innovation is affixed to the optimal business model. With this in mind, the best IP contract framework

for co-innovation will embrace a bilateral approach to how the IP provisions describe ownership and licensing rights. The emphasis is therefore more properly placed upon having the right business model in place.

The co-innovation participants will be better served from sharing in the growth and profits made possible from successful execution of the project more so than from any attempt to assign a specific value to the IP itself. The participants are likely to draw even more benefit as the firms continue to share knowledge and develop a stronger network of trust that can be built upon with every success achieved through project-based co-innovation.

There is yet another way for the CEP to support an open innovation approach in addition to deliberately pursuing outside-in innovation through participating in co-innovation projects with well-established alliance partners. The CEP can support R&D and product development to put the firm's IP into the hands of a target company where the IP, because it does not fit to the focal firm's current business model, could work with the IP using the CEP as the primary development environment. One challenge on this front which Chesbrough has adeptly pointed out is that some innovations never get from R&D to product development simply because the two organizations often have very different goals. A common R&D goal is acquiring a target number of patents or amount publishing research, whereas development will act first upon any innovation that will let it meet ongoing requirements of existing customers or the creation of new features and functionality that will get current product into the hands of more customers (Chesbrough 2006). The result is often that some very compelling IP will get shelved and never contribute to ongoing growth and profitability for the firm.

The CEP represents the potential for changing this. Large firms often have partnering programs that include efforts to nurture new partners; many who may be younger start-up companies. The right assessment may serve to identify if the business models and technical capabilities of these firms might match to inventoried IP. Another source target for this exercise is for large firms that also possess an in-house venture capital unit. If such a matching process were developed, the CEP could help incubate newer firms.

For an alliances organization, the opportunity becomes to further develop the value of partnership as it matures from pursuing co-innovation projects which address known business problems plaguing a joint customer or further refining an ability to integrate technologies resulting in expanded capability or lower total cost of ownership for the customer. In cases where the firm demonstrates interest to invest in a new start-up viewed to one day become a source for acquisition, the use of the CEP would nurture more than just cash investment if the same opportunity to map the investing company's dormant IP to the competencies and business model of the younger firm.

This injection of IP can augment the start-up firm's own IP and the invested firm discovers that from sharing its otherwise underutilized IP, that it can take advantage of an external business model better suited for its IP while simultaneously supplying the start up access to valuable knowledge and resources that its own limited capital might not yet be able to provide. This could prove especially useful to a firm's emerging market strategy where more established firms may still need new capabilities within emerging markets and since the smaller firms within these markets typically have little absorptive capacity, alliances may therefore become an ideal path for partners to gain new knowledge.

## Conclusion

The Open Innovation paradigm has both its proponents and opponents. Paul Trott and Dap Hartmann, of Delft University are likely two of the more recent, public critics of Chesbrough arguing in their own article, why the concept of Open Innovation is Old Wine in New Bottles, that Open Innovation is not the only alternative to the practice of closed innovation. While the practice of open innovation clearly has its share of success stories, the fact remains that it does not provide an overnight remedy to companies plagued with an inability to innovate. Efforts to derive benefit from introducing the framework have also failed. In an article entitled Economics: Open Innovation “all Italiana”, Alberto Di Minin, a Research Fellow with the Berkeley Roundtable on the international Economy (BRIE, University of California Berkeley), points out that among some leading Italian research organizations that this practice of open innovation stems from an urgent need more than being implemented as part of a long term strategic effort by the firm.

Through this author's own observations from having worked for well-known start-ups such as NetManage, Inc., NetScreen Technologies, Inc. as well as much larger established technology firms such as Software Publishing Corporation, Inc., and Sun Microsystems, Inc., that even for companies with both the capacity and interest to practice open innovation do not always do so in a top down, comprehensive and consistent fashion representative of specific, well-articulated business strategy assigned discrete measures in which to validate clean execution. The desire to adopt open innovation expressed from a firm's board of directors and senior management can become lost in translation as the directive becomes internalized and then diffused across different segments of the business.

Deliberate organizational management efforts must be enacted to get R&D and product development sufficiently aligned for innovation that involves capturing external IP or sharing IP with partners. In-house legal counsel must not be saddled with the sole responsibility for the firm's IP strategy (Barrett, Price, Hunt, 2008) or allow opportunistic behavior exhibited during contract negotiations to negate the importance of recognizing that the controlling rights for select intellectual property assets may fit best with the party in possession of the best business model to drive a commercially successful innovation.

Where Chesbrough derives significant acclaim is from the recognition that the business model should dictate how IP is managed to forge innovation and that to do so embraces the use of external innovation as well as using external business models to add value to a firm's own intellectual property. To succeed fully, it truly calls for a company to project itself entirely to innovation becoming its primary objective and this in a nutshell remains the obstinate challenge.

The ongoing challenges related to open innovation becoming fully integrated and embedded into a firm's business strategy is likely to persist, but for those firms with intent to do so may discover a number of advantages to implementation and deployment of its own co-innovation enablement platform as a means to expand the ability to increase ecosystem based innovation. A well implemented CEP can both encourage more outside in innovation as well as to accelerate innovation efforts by providing a substrate of fundamental resources useful to project-based co-innovation that could otherwise consume time and expertise that should be focused upon the innovation effort itself.

The CEP governance processes further provides opportunity for the firm to ensure that the business model remains the focus and that its IP framework can apply a bilateral approach to the management of both background and foreground IP associated with the co-innovation project, designed to emphasize that the controlling rights of the IP and how it subsequently licensed between the parties is a result of the IP strategy being correctly aligned to the right business model.

Lastly the CEP not only enables project based innovation encouraging outside in innovation but can further provide the firm with an opportunity to share its IP with firms possessing capability and business models better aligned to the IP than what the originating firm may be capable of providing. Similarly, the CEP can equip the firm hosting this resource to share knowledge and to collaborate more deeply with younger start-up firms offering interesting IP that can at some point help the firm to further expand its reach to new customers and markets.

Continued exploration is advised to discover if a CEP can significantly contribute to a firm's interest to either implement or to expand its open innovation practice. As the interest in open innovation is only likely to increase, there is ample opportunity for the practice of co-innovation to help a company get innovation initiatives to become more aligned to the right business model and to assist with the successful execution of such an important practice.

## Related Contents

Open Innovation, the New Imperative for Creating and Profiting from Technology, Henry Chesbrough, 2003, Harvard Business School Press

Open Innovation Business Models, How to Thrive in the New Innovation Landscape, Henry Chesbrough, 2006 Harvard Business School Press

Open Innovation, Researching a New Paradigm, Henry Chesbrough, Wim Vanhaverbeke, Joel West, 2006, Oxford University Press

Driving Innovation, Intellectual Property Strategies for a Dynamic World, Michael A. Gollin, 2008, Cambridge University Press

iProperty, Profiting from Ideas in an Age of Global Innovation, William Barrett, Christopher Price, Thomas Hunt, 2008, John Wiley & Sons Inc.

Taking Advantage of Tumultuous Times, Open Innovation: No Longer an Option: Principles and Actions for Getting it Right, Geoff Tuff, Ben Jonash, Monitor Group, 2009

The Innovators Guide to Growth, Putting Disruptive Innovation to Work, Scott D. Anthony, Mark W. Johnson, Joseph V. Sinfield, Elizabeth J. Altman, Harvard Business Press, 2008

Capability, Stock Market Response, and Long-Term Alliance Success: The Role of the

Alliance Function Author(s): Prashant Kale, Jeffrey H. Dyer, Harbir Singh Source: Strategic Management Journal, Vol. 23, No. 8 (Aug., 2002), pp. 747-767

Strategies for Exploiting Technological Innovations: When and When Not to License

Author(s): Charles W. L. Hill, Organization Science, Vol. 3, No. 3, Focused Issue:

Management of Technology (Aug., 1992), pp. 428-441

Economics: Open Innovation “all Italiana”, Alberto Di Minin,

[http://www.issnaf.org/web/index.php?option=com\\_content&view=article&id=374:openinnovation-allitaliana-&catid=47:economic-and-social-sciences&Itemid=96](http://www.issnaf.org/web/index.php?option=com_content&view=article&id=374:openinnovation-allitaliana-&catid=47:economic-and-social-sciences&Itemid=96)

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