GOOD PRACTICES IN OPEN INNOVATION

To access all of the promise of open innovation, organizations need tools and processes that allow them to fully exploit opportunities. A set of twelve core "good practices" for collaborative innovation define the key inputs to the open innovation system, leading to high quality results when effectively executed.

Gene Slowinski and Matthew W. Sagal

OVERVIEW. *Open innovation (OI) has become a mainstream organizational process. Firms are establishing OI groups, allocating budgets, and measuring results. In this article, we identify twelve "good practices" associated with high quality open innovation efforts. In our experience, these practices are key inputs to the firm's OI system, leading to high quality results when effectively executed. The goal of this article is to help management build the practices into their OI system and make continuous improvements in their OI processes.*

KEY CONCEPTS: *Open innovation, Strategic alliances, Collaborative research, Good practices.*

Since Henry Chesbrough (2003) introduced the concept, open innovation (OI) has taken its place as a mainstream innovation process. However, many companies struggle to execute OI effectively. Part of the struggle arises from the fact that at its core, OI is based on collaborative relationships—organizational alliances and partnerships focused on catalyzing innovation for all participants. To access all of the promise of OI, organizations need tools and processes that allow them to fully exploit OI opportunities. Employees need a set of core "good practices" for collaborative innovation.

We say "good practices" rather than "best practices" because the term "best practices" suggests that there is one best path to success. Today's firms are complex entities. A practice that works well in one firm may not produce the same results in another. "Good practices," on the other hand, are well-established, market-proven practices that work well in a wide variety of firms and can be adapted to a wide range of environments.

Our "Want, Find, Get, Manage" Model® (Slowinski 2004) offers a framework for describing these practices. The model, which emerged from our work with the pharmaceutical industry in the 1990s, was developed to bring rational thinking to the fast-paced world of biotechnology OI activities. Since then, the model has been embraced by the consumer products, food, electronics, and, increasingly, chemical industries. In this model, a firm pursues an OI effort through a four-phase lifecycle (Figure 1). The effort begins with the question, "What does the firm *want* to meet its growth objectives?" Once the wants are identified, the firm must *find* the necessary asset; if the asset is not available internally, the firm must locate the asset in the outside world and take steps to *get* it through collaborative relationships. Finally, the firm must *manage* the OI relationship to success. This lifecycle approach to OI relationship management encourages management to see the OI process as a series of interrelated phases, each with established tools and management techniques.

The twelve good practices we outline here have emerged from our observation of hundreds of OI relationships over the past 25 years. Although the practices we suggest here have not been validated by disciplined investigation methods, our observations suggest that thoughtful application of these practices to a firm's particular needs and context consistently produces results.

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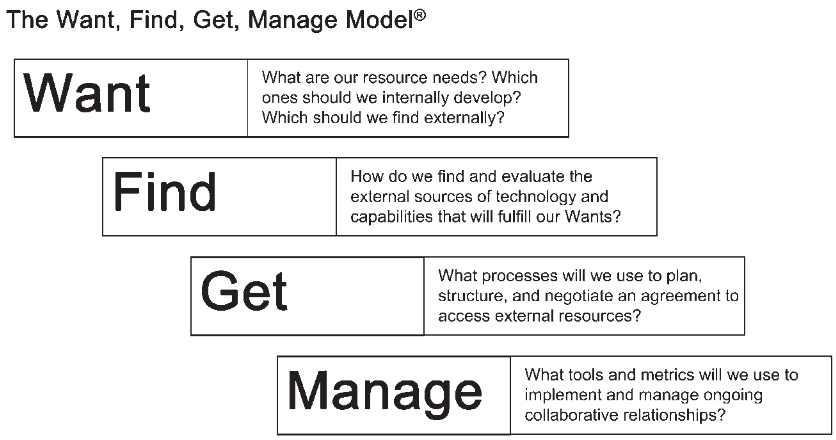

Figure 1.—The Want, Find, Get, Manage Model breaks the lifecycle of open innovation relationships into four phases.

Good Practices in the Want Phase

The starting point of OI success is a clear understanding of what assets the firm requires to accomplish its growth objectives, which may include improving existing products and services or accessing new markets. These are the firms "Wants"; a want may be satisfied through internal development or normal procurement channels, in which case there is no need to pursue an OI relationship. However, if the desired asset is not available internally, the firm must seek it elsewhere; this may mean purchasing it, but the answer is frequently found through a collaborative relationship or alliance.

An effective Want process includes mechanisms for assessing the trade-offs between internal development, direct purchase, and external acquisition; acquiring a particular asset may involve aspects of two or even all three modes. Three practices are often found in firms that execute this phase well:

Want Practice 1: Incorporate external thinking into the strategic planning process.

The pursuit of OI relationships must be based on a strategic planning process that includes the external world as a potential source of talent, technology, and other resources. Product objectives arising from an insular planning process tend to be incremental innovations that are extensions of the firm's current product lines. These innovations rely on the firm's current asset base as a primary source of resources. But, while incremental innovations are important, they rarely generate significant growth.

The issue with insular planning processes is that they constrain employee thinking. Employees cannot think outside the box because the box is limited to the firm's assets. Growth generated through OI is outside the asset base, and often outside the planning function. This issue can be expressed in a simple, but powerful Want equation. Ryan Dirkx originally formulated this equation as A + B = C (Witzeman et al. 2006); we propose a slight adjustment in terms to better illustrate the specific elements involved:

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The power of the equation is its ability to communicate a key concept: New value results from linking external and internal resources. C represents the goal: a fulfilled *customer need*, leading to growth for the organization. A represents the firm's current *asset base* as well as assets the firm can create internally within a commercially feasible time frame, and E (represented by C in the original equation) represents *externally available resources*. Too close a focus on A during the strategic planning process will limit the value of C by forcing the outcome to be determined by the firm's in-place resources. In this scenario, the organization cannot pursue a more valuable C because it is constrained by internal skill sets, technologies, and physical assets.

The variable E unlocks the equation, freeing the organization from the constraints of its own existing capabilities. Explicitly including external skill sets, technologies, and other assets as inputs in the planning process enables a far more valuable C. Redefining C as an objective enabled by the combination of A and E fosters productive want behavior.

Questions that encourage external thinking in the planning process include:

- What are the unmet customer needs that lead to a more valuable C?
- What internal resources does the firm have to meet these needs?
- What additional resources does the firm need?
- How might the firm acquire the additional resources? Can they be developed in-house, purchased, or created via a partnership with an external source?
- What external sources might possess an adequate quantity and quality of the needed resources, based on the firm's present awareness of external sources?
- Does the firm have the skills to create and manage collaborative relationships with external sources?

What should managers do? Start by building the potential for acquiring external assets into the strategic planning process. The planning process should include identification of external assets that complement the firm's internal asset portfolio. Encourage planners to include B as a core part of strategic planning as a way to think their way to a more valuable C.

The starting point of open innovation success is a clear understanding of what assets the firm requires to accomplish its growth objectives.

Want Practice 2: Convert planning outcomes into a set of prioritized Want Briefs.

A well-crafted plan translates strategic intent into a set of assets that the firm wants. These assets are captured in a document, called a Want Brief, that clearly describes the needed asset in terms that enable a decision regarding sourcing (internal or external) and guide an efficient find effort.

Want Briefs are prepared only for needs of a high enough priority to justify pursuing the resource-intensive Find, Get, and Manage phases. Setting priorities in the Want phase is a critical skill for a successful OI effort, as an overly diffuse, under-resourced effort can have implications far beyond the current project. A complete Want Brief should include:

- How the desired asset fits into a new product or service;
- Benefits the asset can deliver to the customer;
- Highlights of the business case for the product, service, or business model the asset will enable;
- A list of existing assets that complement the sought asset;
- Intellectual property issues affecting the asset or the possibility of acquiring it;
- A description of how the business will support the Find and Get steps;
- A list of potential external sources and existing contacts with identified sources;
- Minimum requirements and appropriate metrics to help scouts determine whether the asset meets these requirements;
- Criteria governing go/no-go decisions in the Find and Get phases; and
- Likely sources of information relevant to the Find effort.

The Want Brief is an iterated document. As new information is collected during the Find phase, it is incorporated into the original brief, which is then fed back to relevant internal stakeholders.

We recommend developing a firm-specific Want Brief format that captures the information required to enable the Make/Buy/Partner decision and sets the stage for an effective Find initiative.

Want Practice 3: Utilize a structured process for the Make/Buy/Partner decision.

Even when a firm is fully committed to OI, some assets will be more efficiently developed in-house or procured through traditional channels. The firm must have a rigorous, reliable system for making this determination.

If the choice is between making the asset in-house and partnering, the traditional decision-making process is biased toward the make option because managers often underestimate the time and resources needed to develop an asset internally, overlook the opportunity cost of dedicating technical staff resources to a project that could have been pursued collaboratively, or neglect the added net present value (NPV) that may be afforded by an earlier market entry or more sophisticated innovation enabled by collaborative development. Furthermore, managers may be reluctant to deal with the additional administrative overheads of planning and executing an OI effort.

In this context, the Make/Buy/Partner decision-making protocol must take into account the full cost of internal development, the NPV effect of a potential early market entry or other benefits of collaboration, the effects of staff allocation to high-value projects, and the likely challenges of executing an OI relationship. This protocol must be rigorously applied to each defined want so that OI resources can be focused on those most likely to be satisfied by a collaborative development. Firms should assess the relevance and completeness of their Make/Buy/Partner decision-making protocols and ensure that they are rigorously applied to Want Briefs in a way that minimizes biases toward the make option.

Good Practices in the Find Segment

A set of well-executed Want Briefs is the starting point for the Find phase, which is focused on locating possible sources of external assets. Firms vary widely in their approaches to the Find effort. Some establish designated scouts inside specific business units; others use third-party agents, who use tools such as proprietary expert networks to locate potential asset sources. An increasing number of firms use the Internet to solicit third-party inputs. The choice (or mix of choices) is dependent on the firm's objectives, its wants, and the scope of its existing contacts with potential sources and the sophistication of its internal search capabilities.

Find Practice 1: Look inside first.

Many firms underutilize existing knowledge within the firm. Employees, corporate databases, and external consultants are a rich source of knowledge that can be used to plan the approach to finding resources. Employees may have professional ties to prospective sources and insights into the strengths and weaknesses of those sources. These ties can be used to facilitate initial introductions. Employees with knowledge of possible sources will also know (or can be briefed) on the nuances of the Want Brief, and they will have freer access to sensitive information that may be important to the effort, but that the firm may be reluctant to share with external agents. This inside information helps shape the Find process, and gaps in inside knowledge can be used to plan agendas for initial discussions with potential sources.

Looking inside first goes beyond mining internal tacit knowledge. Internal efforts should also include patent mapping to identify sources of likely intellectual assets, literature searches, and visits to academic institutions and other companies active in the areas of interest. These initial internal efforts can reduce the costs of third-party Find agents by focusing their searches on gaps in the firm's knowledge base.

The Find phase is focused on locating possible sources of external assets.

For the internal search process to work, the firm needs a system to communicate wants to relevant internal communities and solicit appropriate inputs. Such systems do not have to be elaborate; they can be part of existing intranet systems. Managers should assess the existence and effectiveness of the internal system for communicating about asset needs and accessing internal knowledge at the Find phase.

Find Practice 2: Treat the Find effort as a bilateral process.

Firms must understand the Find effort as a bilateral process: Even as the firm is trying to find the best partner for collaboration, potential partners are seeking the best match to meet their own needs. There can be fierce competition for high-quality partners, particularly in highly networked industries such as pharmaceuticals and electronics. Consequently, the firm must demonstrate that it is itself a promising partner. Typically that requires more than a description of assets; it also requires that the firm demonstrate that it is effective, efficient, and committed to implementing the partnership and commercializing the results.

This bilateral aspect of the Find process and the associated demands on the firm's managers is one reason that the prioritization of wants is so important. If the list of desired assets is too long relative to the size of the firm or the business unit or its new product or service strategy, then the resources will not be available to support an energetic bilateral Find process. In this case, a potential partner may interpret the lack of resources as lack of interest. The firm will not be seen as the partner of choice.

In this context, the Find process requires the full engagement of the firm across business units. The firm should establish a comprehensive process for a bilateral Find process that calls on managers from across business units. Managers should measure the extent to which the firm presents itself as a desirable partner in a crisply executed process.

Find Practice 3: Use information gathered in Find to refine the Want Brief.

The Want Brief is a detailed description of the firm's objectives, including such elements as characteristics of the asset to be developed and the intellectual property strategy that will be used. As the firm interacts with potential external sources, it gathers new information that can be used to refine the Want Brief. Design characteristics may be modified based on discussions with a source of complementary technology; the intellectual property of the source may prompt a reconsideration of the intellectual property strategy captured in the original Want Brief.

This feedback should be continually added to the Want Brief, and the revised brief must be fed back to stakeholders, including both internal staff and external consultants that contributed to the initial brief. The firm should establish a systematic process for feeding information generated during Find back into the Want Brief and communicating that information to stakeholders.

Good Practices in the Get Phase

The outputs of the Find phase are a short list of potential external sources and information about each source. The list might include only one source, if that source appears clearly superior to others; in this case, the Get phase is abbreviated. When the list includes two or more sources, the Get process must determine which source's resources are superior and whether a mutually acceptable alliance agreement can be negotiated with any of the sources.

Like Find, Get is a bilateral process. While the firm is determining which source has superior assets, the candidates on the list are engaged in the reciprocal process. Thus, Find Practice 2—treat the process as bilateral—also applies in the Get segment.

Get Practice 1: Establish and maintain internal alignment.

If there is a fundamental insight into a successful Get phase, it is this: Every alliance is really three alliances in one (Figure 2). While the obvious alliance is between the partners, there are two sets of equally important relationships that will affect the relationship at every level: the internal alliances inside each firm.

Within each firm involved in the alliance, functional groups (R&D, marketing, finance), individual business units, and senior leadership must be aligned on the objectives and terms of the alliance. Alignment does not mean total agreement, with no differing opinions. Rather, alignment means that all stakeholders have an opportunity to participate in the Want, Find, and Get phases; that their views are considered; that each stakeholder understands the details of the alliance as it takes shape during the Get process; and that all commit their organizations to making it work.

A lack of alignment inside one or both companies is a key reason alliances fail. Without alignment, different stakeholders work from different understandings of the purposes, terms, and priorities of the alliance. As a consequence, the coordination of the internal resources needed for successful implementation is impossible. If Company A managers differ in their understanding of what each company is expected to do, or have differing views of priorities, some Company A resources will not be applied in a timely manner. Or, if Company A managers

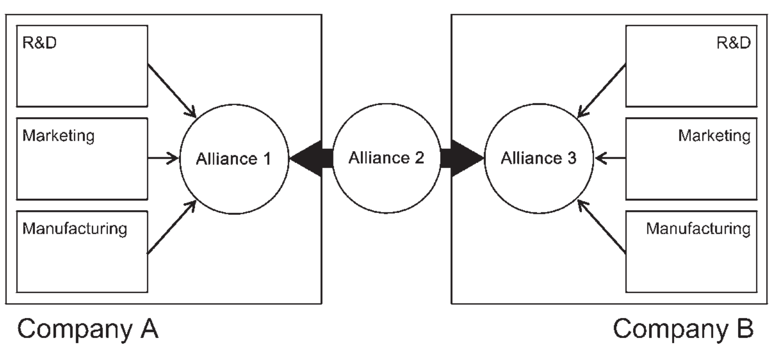

Figure 2.—Alliances fail when managers forget that every strategic alliance is really three alliances in one; the internal alliances within each firm will shape the external partnership, for better or worse.

have varying views of the intellectual property terms of the alliance, some Company A groups will share information appropriately and others will over or under disclose proprietary information. This leads to a situation similar to one an executive described vividly to us: "Working with [Company B] is like dating an octopus: two arms are hugging me, two are strangling me, and I don't know what the other four arms are up to."

Alignment is not a one-time matter. It must be established at the start of the process and maintained throughout negotiations as compromises are made and initial positions are modified. That requires continuous, systematic feedback to internal stakeholders throughout negotiations. Firms should establish a process to create and maintain internal alignment throughout the Get process and to measure the extent to which stakeholders share a common understanding of the objectives and terms of the prospective alliance.

A lack of alignment inside one or both companies is a key reason alliances fail.

Get Practice 2: Use a structured process for internal planning and negotiations.

Companies often encounter difficulty in transforming a Want Brief and Find List into an alliance contract, even if the Want and Find phases have been well executed. The alliance contract must deal with matters that are addressed only broadly in the Want Brief and discussed in general terms (if at all) during the Find phase, such as the financial arrangements around the alliance. And, like the Find process and the rest of the Get process, negotiations are a bilateral process; the negotiated terms must be acceptable to both parties. A Want Brief usually does not address the strategic needs of an external source. Find discussions typically minimize potentially contentious issues. Conflicts in alliance terms will emerge during the Get phase and must be resolved there.

During the Get process, each aspect of the alliance must be carefully planned, negotiated, and captured in an alliance agreement to avoid misunderstandings during the Manage phase. We have found a clear correlation between the use of a disciplined, structured Get process and Get success, whether that success is defined as a mutually acceptable agreement or a quick realization that a mutually acceptable relationship is not possible, minimizing wasted resources and opportunity costs associated with fruitless negotiations.

We do not use the terms disciplined and structured lightly. The firm must have a process that is understood by all stakeholders, followed rigorously as planning and negotiations proceed, and clearly communicated internally and to the prospective partner.

We have developed a process for this purpose (described in Slowinski and Sagal 2003), but the firm may choose to use another process, such as that described by Arena and Carreras (2008), or design its own. Whatever process the firm decides to use, it must engage with internal shareholders at every stage. A designated team should identify the elements of the alliance relevant to particular stakeholders and prepare positions on those elements for internal review. Clearly written, iterated documents avoid the trap of fuzziness in defining intentions. Stakeholder input must be ongoing; all elements should be addressed in parallel, since they are interrelated. For example, intellectual property rights may be connected to termination provisions.

This process should also be bilateral. Both partners should prepare positions on identical lists of alliance elements, using the same definitions of those elements. This enables effective negotiation by melding positions on each element and avoids the "by the way" and "I didn't realize you meant that" problems. If the parties can agree on all elements, the definition document becomes the starting point for contract drafting.

Get Practice 3: Negotiate with a focus on "Win-Win-Lose-Lose-Lose."

By their nature, negotiations usually involve attempts by each party to gain an advantage over the other. As a simple example: If one firm is going to pay royalties for use of the other firm's technology, the licensee will try to minimize the royalty rate and limit the circumstances requiring payments. The licensor's objective will be exactly the opposite. When this adversarial attitude is applied to each of the many terms of the alliance, negotiations can become long and arduous. It may be impossible to reach mutually acceptable positions, and even if agreement is finally reached the wounds may carry over into alliance implementation.

Aside from wounded feelings, the consequences of an adversarial alliance negotiation can deeply affect implementation. The end of the Get process (the execution of an alliance agreement) is the beginning of the relationship, not the end. Experience shows that for implementation to succeed, both parties must perceive the agreement as fair. Using the royalty example: If stakeholders in a technology source believe that their firm is receiving an unreasonably low royalty, those stakeholders will not perform well during implementation.

The “Win-Win-Lose-Lose-Lose” principle is a simple guide to reaching an agreement that is fair to both parties. Acceptable compromises can be reached and a fair outcome achieved by a focus on how both parties can achieve their objectives, or win, while other marketplace participants lose in the heightened marketplace competition enabled by the alliance. The partners are better able to reach compromises when they focus on mutual interest, enhancing their ability to serve customers better than competitors. “Win-Win-Lose-Lose-Lose” defines how the alliance will impact all market participants, not just the alliance partners.

Good Practices in the Manage Phase

Once the contract is signed, the Manage phase begins. The goal in this phase is to coordinate and integrate the partners’ resources to meet the specified objectives. Many executives tell us that their firms conduct implementation poorly, even after negotiating a carefully structured alliance agreement. A common challenge is ensuring that each firm’s team members understand who does what, what types of information must be exchanged, and how information exchange should be carried out. Disconnects in these matters quickly lead to mistrust just when healthy working relationships are essential, mistrust that will be hard to reverse.

There is no magic bullet for all pitfalls during the Manage phase. But there are three practices that are useful in establishing and maintaining the required relationships.

Manage Practice 1: Hold a kick-off session to enable integration of management systems.

At the beginning of implementation, managers from the partnering firms must learn how to integrate both firms’ contributions into a functioning whole. Differences in processes and systems, including both formal structures and tacit culture elements, may create stumbling blocks in this process.

A systems disconnect may damage the entire working relationship. One example: A few weeks after the start of implementation, Large Company and Small Company managers agree that a change must be made in a project milepost. The Large Company manager tells the Small Company manager that he must get approval from the Large Company’s executive review board to implement the change. The Small Company manager points out that he (a nominal peer) has authority to make the milepost change, without further approval. Not only is the Small Company manager unhappy with the delay in an important decision, but also he reports back to his management team that the Large Company is bureaucratic and slow to act. The Large Company manager reports that the Small Company is undisciplined and its senior management team is unaware of an important project change, which could lead to trouble later. The partner firms are already suspicious of each other, and the alliance has just begun.

The problem caused by systems disconnects are especially damaging since, without intervention, they tend to emerge gradually over the early months of implementation. Each newly perceived disconnect may seem minor in itself, but it will cause friction during those early days, when creating good working relationships is essential. The managers in both firms then spend months in a clumsy trial-and-error process trying to integrate systems and processes, while damage increases and project progress stagnates.

Over the last decade, we have developed a number of tools and management techniques to facilitate integrating the activities of partnering firms (Slowinski and Sagal 2003). These tools focus on handling intellectual assets, integrating decision-making processes, and linking project management systems. To avoid the damages and delays arising from trial-and-error solutions, the best practice is to identify and resolve differences immediately upon starting the Manage phase. The most efficient mechanism for this is a kick-off session in which each firm clearly describes the decision-making processes and management systems that will guide its actions during the alliance. This allows team members to identify barriers in their systems and work together to design integrated working processes.

All significant disconnects may not be resolved in a single meeting. The “session” may actually require more than one meeting, and senior-level attention may be needed to resolve some issues. But a well-planned and executed kick-off meeting is an important vehicle to identify disconnects and start the process of resolution, avoiding the damage done by the gradual emergence process.

Manage Practice 2: Use the kick-off session to ensure that both firms have the same understanding of the operating principles established in the agreement.

Even where the negotiating process has been effective, the legal alliance agreement does not translate readily into guidelines for functional people, such as R&D staff, who must work cooperatively every day. Indeed, the legal agreement and underlying planning documents are often not shared with all key staff working together during implementation. Scientists, engineers, and marketing people may get their understanding of the alliance from their supervisors, who themselves may not have read the agreement or have a clear view of the alliance terms. Even worse, staff members from partner firms may all believe they understand the agreement’s terms, but individual perceptions may be different, leading to confusion.

The kick-off session provides a mechanism for team members to get a clear and consistent explanation of the terms of the alliance and how the agreement terms should guide their actions. The lead negotiators from both firms should facilitate the discussion, which should include staff members from both firms and describe the alliance contract in terms of working-level actions. Developing this common understanding in the kick-off session averts potential confusion and its consequences.

Manage Practice 3: Train managers in both firms in the principles of conflict resolution.

The limited resources available to carry out alliance objectives can be drained by inter-firm conflict. Conflict does not imply hostility, although hostility is often part of the problem (Pickering 2000). Some conflict is negative, expressing itself in unhealthy behaviors and a refusal to cooperate. Some conflict is positive, encouraging the group to explore multiple pathways to a common goal. In either event, a practical grasp of the principles behind conflict management allows team members to avoid a common mistake: ignoring conflict and hoping it will go away. Left unmanaged, conflict strains relationships, decreases productivity, erodes trust, and leads to an "us versus them" mindset characterized by decision-making paralysis (Pickering 2000). The principles and best practices of conflict resolution are outside the scope of this article. However, managers who miss their chance to resolve conflict in the second stage are in for a long and painful ride.

Conclusion

The development and management of OI relationships may be the most complex set of organizational activities carried out on a regular basis. Managers must coordinate and integrate the resources of two firms, each with different embedded processes and systems, each with formal and informal reporting structures, and do it in a market-relevant time frame.

Understanding the good practices we have outlined is one thing; implementing them is another. Managers seeking to improve their OI relationship processes can take concrete steps to do so. The best place to start is with the Want phase. Share this article with the strategic planning group. Ask them to evaluate their planning process for its ability to encourage external thinking. Once desired assets are identified, develop Want Briefs, prioritize them, and apply the firm's Make/Buy/Partner methodology.

When the decision is made to partner, develop a scouting strategy that begins with an internal search and expands logically into high probability external areas. Scouting strategies work best when the scouts realize that the Find process is bilateral. The potential partner is seeking the best match for its needs, comparing your firm to others. That thinking extends into the Get phase.

The development and management of OI relationships may be the most complex set of organizational activities carried out on a regular basis.

How do your terms and financial model compare to your competitors? Are you positioning yourself as the partner of choice? A rigorous methodology for planning and structuring the relationship helps this process.

Finally, managing the relationship to success is not an ad hoc process. The normal skill sets of middle managers are necessary, but not sufficient to implement a collaborative relationship. Use the kick-off session to build a common understanding of the relationship. Help your partner understand conflict resolution techniques and employ them in the alliance.

The practices we have described require ongoing management attention and adequate resources. They also lead to successful, sustainable innovation alliances that allow all participants to meet their goals.

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