

RESEARCH/
DEVELOPMENT

**BRIGHT IDEAS
WANTED**

THERE HAS BEEN A SHIFT IN BUSINESS INNOVATION.

LEAVING BEHIND A ONCE
INTERNALIZED PROCESS, COMPANIES
ARE BECOMING MORE RESOURCEFUL
AND SUSTAINABLE BY COLLABORATING
WITH EXTERNAL SOURCES FOR
R&D, A PRACTICE KNOWN AS “OPEN
INNOVATION.” WE TAKE A LOOK AT
THE EVOLUTION OF OPEN INNOVATION
ALONG WITH CONSIDERATIONS
FOR ENTERING INTO
AN OPEN INNOVATION AGREEMENT.

VIEW

OPEN INNOVATION BY CHARLES J. BREZ

OVER THE LAST 10 YEARS, many companies have realized that the traditional method of funding R&D and business development was unsustainable. Applying a percentage of shrinking revenues to fund product enhancements and new product development in a fiercely competitive world simply was not adequate to remain competitive and to satisfy shareholder expectations for growth and profitability. A new approach to R&D and product development had to be deployed, and this approach was called “open innovation.”

The traditional method of hiring the best employees, training them, building R&D facilities, and expecting employees to invent and develop new products using only internal capabilities was costly, time consuming and produced limited results. As opposed to relying exclusively on internal capabilities, open innovation reaches out for “just in time innovation” to partner with the most appropriate and best qualified innovators to complement internal capabilities, tap new ideas, and fill development gaps. Cooperating with external innovators and leveraging the global innovation community brings to light creative ideas and dramatically expands the innovation network outside of the usual experience base.

Several trends and capabilities have evolved over the last few decades to drive the adoption of open innovation. In the 1980s, major corporations accounted for over 70 percent of the patents issued. This dominance has dropped dramatically as large corporations now account for less than 40 percent of the patents. The trend continues to favor the growth in patents at smaller companies.

The growth in small companies was driven in the 1990s by the availability of risk capital. You no longer had to mortgage your home to raise money to start a new company. Private capital was becoming available from venture capitalists and public funding was available from government programs such as the SBIR/STTR program initiated in the 1980s by Congress. This availability of capital spurred the entrepreneurial spirit evidenced by incubator parks spawned by universities and other enterprises.

Also, North America and Western Europe used to graduate most of the scientists and engineers, but today China and India graduate many more technologists. Those that are educated elsewhere are returning to their home countries for employment. The developing countries also account for the major growth in consumption.

Another major driver of open innovation was the rapid development and widespread adoption of the Internet by technology communities around the world. It is now possible to reach and communicate with thought leaders around the world easily and effectively. The National Science Foundation

estimates that there are over 3 million scientists, technologists and engineers in the world. Even the largest corporation has less than 1 percent of the global technical capability.

Therefore, years ago large corporations could succeed using only internal resources, but with the expansion of technology to smaller companies and dispersion of technologists to geographic locations around the world, the practice of open innovation begun around 2000 is necessary for survival. The Internet allows technology seekers to reach the innovation community anywhere in the world at universities, research institutes, government labs, large and small industrial companies, and individual innovators.

Open innovation provides benefits to both sides of the partnering equation: the technology seekers (representing the “needs”) and the solution providers (representing the “seeds”). Since the Internet is in the public domain, the sharing of information between the two sides exploring a partnership should be on a non-confidential nature to protect intellectual property until proper agreements are in place.

The technology seekers’ reach is dramatically expanded into the global research and innovation community to find unobvious and previously unknown technology solutions. It reduces risk by reinventing fewer wheels and leverages proven solutions that already exist in the marketplace. Time to market is considerably shortened to respond to competitive threats, and costs are dramatically reduced to achieve differentiable advantages in the marketplace. The solution provider benefits by accelerating commercialization of their innovations and bridging the so-called “valley of death” by connecting their creative technologies with leading companies who have access to markets.

Those who embrace open innovation practices benefit by changing their culture from NIH (Not Invented Here) to PFE (Proudly Found Elsewhere) and enjoy broader business success.

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REVIEW GUIDELINES FOR ENTERING INTO AN OPEN INNOVATION AGREEMENT BY DIANNE M. PROIA

IN THIS ERA OF MULTI-BILLION DOLLAR GOVERNMENT STIMULUS PACKAGES

and massive company layoffs, U.S. businesses are increasingly willing to embrace “open innovation,” the concept under which businesses use external sources to either develop new technology or acquire pre-existing technology.

When done properly, open innovation technology transfers can be mutually rewarding to the company developing the technology and the company acquiring the technology. But when a technology transfer is done incorrectly, it can result in technical and financial devastation for one, or both, of the companies involved.

Before entering into a technology transfer agreement, consider the following:

- 1. Determine the driving factors behind the deal for each party.** Each party should identify what its own needs, goals and objectives are, and then try to determine the needs, goals and objectives of the other company. You may find that the deal your company initially sought is not what is really needed.
- 2. Assess your proposed strategic partner.** Consider what is being said about the other company in the press and your business community—especially with regard to the

quality of their products and their current market share. Investigate whether they have been involved in any lawsuits; you do not want your company’s reputation, or finances, destroyed as a result of your association with them.

- 3. Protect the confidentiality of your company’s technical and business information.** Enter into a Nondisclosure Agreement (NDA) before engaging in any discussions with the other company. The NDA should cover the disclosure of both technical and business information, and should clearly state, and limit, the purposes for which one company may use the other company’s information. Always mark written information you provide to the other company with the words “confidential” or “proprietary.” Failure to protect and mark your company’s information might result in the other company using your technology for its own purposes and without your company receiving any compensation.

- 4. Don’t be afraid to limit the amount of information being disclosed.** Many companies make the mistake of thinking that because an NDA is in place, they are required to, or should, provide all information the other company requests. That is not the case. Carefully consider what information the other company really needs to evaluate your technology and





business, and deliver as little information as possible. Never provide source code or lower-level diagrams as part of the technology evaluation process. If the technology is pre-existing, do not disclose your development costs. It may be best to demonstrate the technology and describe what the technology can do— but not disclose how it is done.

5. Conduct due diligence. Seek written assurances in the agreement that there are no legal barriers to the transfer or receipt of the technology. Make sure all of the developing company's employees have assigned their patent rights to their employer. Determine whether there is any third-party technology embedded in the technology, and whether additional license or royalty fees must be paid to third parties. Check your other contracts to determine whether they prohibit or restrict the transfer of the technology. Being proactive now may prevent costly and harmful lawsuits in the future.

6. Determine what kind of a technology transfer will take place. Clearly state in the technology transfer agreement whether the technology is being licensed or purchased, and the conditions, if any, under which it may be transferred to or used by third parties. Specify exactly what technology and supporting information will be conveyed as part of the tech transfer

(i.e., software object code, user manuals, technical drawings, etc). Determine for each company what restrictions, if any, will be imposed on its ability to transfer the acquired or similar technologies to other companies, and evaluate what impact such restrictions might have on your business.

7. Identify possible post-technology transfer business opportunities.

Before the technology transfer agreement is signed, each company should consider how they might want to work together after the agreement has been signed. Follow-on services (such as developing enhancements or upgrades to the technology, providing maintenance and support services, training users or installing equipment) can be a source of future revenue for the developing company and secure the ongoing technical integrity of the product for the acquiring company.

8. Pricing. Consider each party's motivations, needs, strengths and weaknesses before finalizing a price. Explore your payment options carefully. Clearly state in the agreement what amounts are to be paid, when each payment is due, and under what conditions, if any. The agreement should also state what your legal and business remedies are in the event of non-payment or any other breach of contract.

9. Always seek expert advice.

The agreements that accompany open innovation technology transfers can be extremely complex. Try to avoid the impulse to keep costs down by doing it all yourself. Seek appropriate legal, tax, accounting and strategic planning advice from experienced professionals throughout the open innovation process.

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