Managing IP in open innovation partnerships

Open innovation is growing in popularity as an increasing number of companies seek to collaborate on research and product development. However, for the process to work, it is vital that all the IP angles are understood and acted upon

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Partnering for research and development, a business strategy commonly called open innovation and popularised by Henry Chesbrough, has been increasingly adopted by corporations seeking growth and new sources of ideas. At today's accelerated pace of business, relying on internal resources to respond to consumer needs, investor expectations and evolving markets is simply not feasible. Establishing partnerships through open innovation can combine the strengths of partners – such as value chain position or technical expertise – to increase the chances of success in the marketplace. Partnerships can take many forms, including joint development, joint venture, collaborative research and licensing.

One of the major drivers for open innovation is the effort to achieve sustainable growth. A powerful source of sustainable growth is creating new products at lightning speed. Many companies have reduced their R&D or manufacturing capabilities for cost purposes and therefore may not have the internal resources necessary. Additionally, new product development is requiring greater variation and depth of expertise that may not be broadly available. So companies are turning to open innovation to enhance their capabilities to generate sustainable growth.

Open innovation needs IP

For open innovation to work, however, it must be supported by intellectual property. Without IP, competitive advantage can be short-lived and commoditization may occur quickly. Companies need to have a solid, yet agile IP strategy in place to protect their investments in innovation and to manage the deployment of a variety of IP weapons – patents, technical publications, copyrights, trademarks and trade secrets.

Embracing open innovation introduces complications in managing IP, including those belonging to each partner and the IP created by the partnership itself. Ownership of IP should be governed by the partnership agreement. Specific areas that should be addressed in the agreement include:

- Protecting each party's IP portfolio that precedes the partnership.
- Governing the sharing of existing IP needed for success during the partnership.
- Designating the ownership and management responsibilities of the IP created by the partnership.
- Handling the IP at the end of the partnership or unexpected dissolution (divorce).

In this article, we outline a deal strategy framework to prepare for and manage IP issues in open innovation partnerships. With a basic structure that can be easily modified for the intricacies of a specific deal, situation or entity, this framework is particularly valuable for addressing IP concerns and issues, and helping to create solutions that are amenable to all parties.

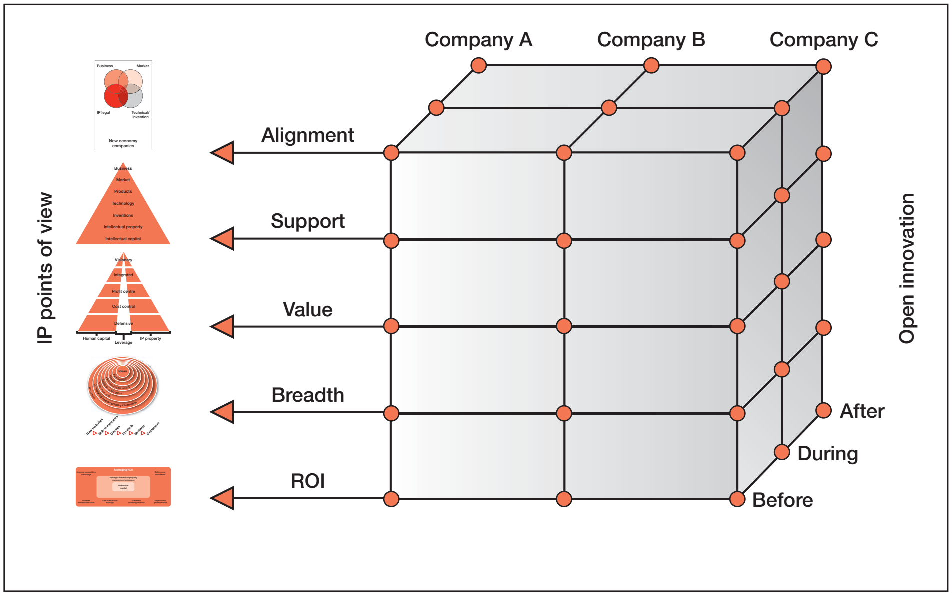
A company can also use this framework to optimise its position in the partnership.

The deal strategy framework can evolve throughout the partnership process. It helps to unite business, technical, marketing and legal perspectives, and can assist partners in finding common ground, assigning duties and rights, and agreeing upon final terms in the agreement. The framework also facilitates the development of a long-term plan that will govern the partnership throughout and beyond its lifespan. Specifically, the framework can be used for the following:

- Before a deal: identify potential partners; prepare for discussions and negotiations, including prioritising your IP interests and building an understanding of the partner's position and needs; find a balance of IP terms that is win-win for the parties involved; and develop new IP in areas that add strength to the company and build a stronger position in the partnership.
- During a partnership (at initiation): generate a collaboration perspective among both parties, meaning that the partnership becomes its own independent entity with separate goals, plans and priorities; develop a joint IP strategy and assign responsibilities; set benchmarks and determine metrics related to IP that will be used to gauge success; and ensure that the necessary partnership IP is developed.
- During a partnership: track metrics for success; modify the IP strategy as needed; deal with any issues or concerns related to the IP.
- At the end or after a partnership: execute the exit plan; continue the management of the IP as previously agreed upon (eg, payment of maintenance fees); and limit fallout from an unexpected dissolution of the partnership.

The deal strategy framework uses five IP points of view (alignment, support, value, types of IP and return on investment). Other perspectives may be added, but we have found that these five are the most valuable to start. The other parameters are considering what should be done before, during and after the partnership and the entity, which includes the company itself, the potential partner and the culminating partnership. This creates a three-dimensional framework (see Figure 1 above). Each intersection of the parameters launches a dialogue about the IP issues, needs and action items in that space. Although the framework is focused primarily on IP issues and concerns, it does have broader application to building mutual respect and understanding between partners prior to entering a deal, in areas such as business goals and priorities. The framework has the added benefit of being a

Figure 1. **Framework in matrix form**



systematic brainstorming tool to overcome the many roadblocks and fears in any new partnership.

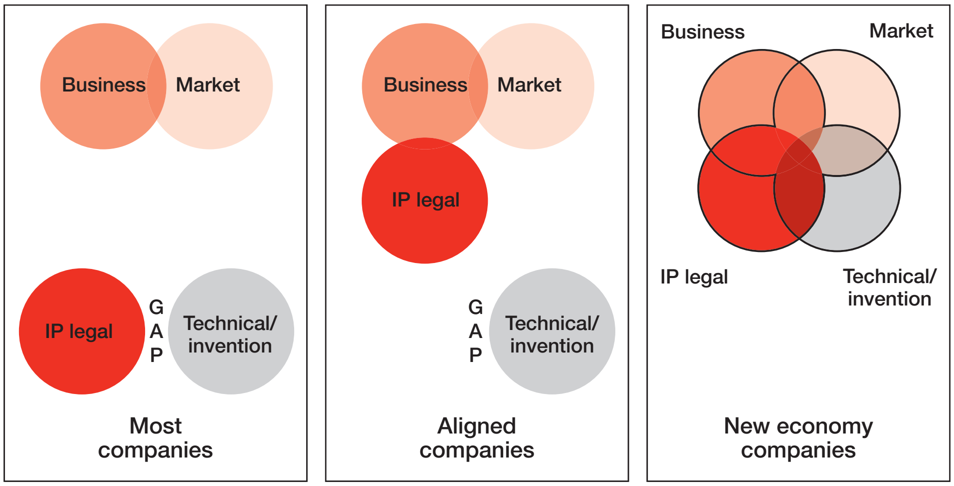
Like any partnership that requires a legal contract, the agreement structure, usually a boilerplate, has limited scope and flexibility. This deal strategy framework has particular utility for creating innovative agreement structures that cover these unique points of view. Using this framework to negotiate and generate a win-win deal provides a straightforward structure for writing a much more substantial term sheet and final contract.

The framework is used in facilitated sessions with key team members from business, technical, legal and marketing. The high-level points from the discussion are typically noted on the matrix, so that the facilitation session results are summarised into a single document. The document serves to capture and communicate the results of the session and ultimately drives the term sheet and final contract.

Doing the deal

For explanatory purposes, we will consider the following scenario: a large company (BigCo) is considering a partnership with a small company (HighTechCo). BigCo develops and markets consumer products in a variety of business areas. The company is facing demands from shareholders to accelerate their growth. BigCo is seeking a new device technology, for which it does not have internal capabilities, to open up new markets, but it is limited by a crowded IP landscape and many established players. HighTechCo is a small

Figure 2. **Alignment point of view**



The alignment matrix

Alignment	BigCo	HighTechCo	Partnership
Before	**Need:** period of exclusivity **Action:** map white space	**Need:** build for exclusion **Action:** brainstorming new applications **Need:** grant back **Action:** negotiate for grant back	
During	**Need:** freedom to operate **Action:** use enabled publications		**Need:** leverage IP synergy **Action:** brainstorm value chain
After		**Need:** grant back **Action:** monitor BigCo's IP	

company that specialises in a novel device technology. With a modest, but strong IP portfolio, HighTechCo is seeking a partner that can help realise the dream of taking the device into broad distribution. HighTechCo needs assistance getting through the development and scale-up processes. HighTechCo would like to retain the rights to the technology so it can supply to multiple BigCo-type companies.

We will explore a partnership between BigCo and HighTechCo using the framework to demonstrate the approach and provide examples of the results. Given the number of unique combinations of parameters in the matrix, we will discuss a representative selection of possibilities. In terms of using these points of view in the context of the larger framework, the team assembled for the session examines each possible matrix element and brainstorms the IP needs and action items required and captures relevant observations.

Alignment

The alignment point of view seeks to understand the business, technical, legal and marketing needs, as well as the alignment between these needs. The degree of alignment strongly relates to the focus and priorities of the company and may influence the speed at which decisions can be made. It is ideal to strive for better alignments (ie, the new economy level of integration).

BigCo, before the partnership, is looking for a new market in a crowded IP landscape. Therefore, it needs to ensure legal and market alignment. From an IP perspective, in order to do this, it should map out the white space of the market and ensure that HighTechCo captures the white space adequately. BigCo requires a period of exclusive access to HighTechCo's IP. During the partnership, BigCo needs to ensure that the IP is fully developed and that it allows for optimum defence, to ensure freedom to operate. BigCo should develop enabled technical publications to complement the patents to create a prior art bar that minimises competitors' IP potential.

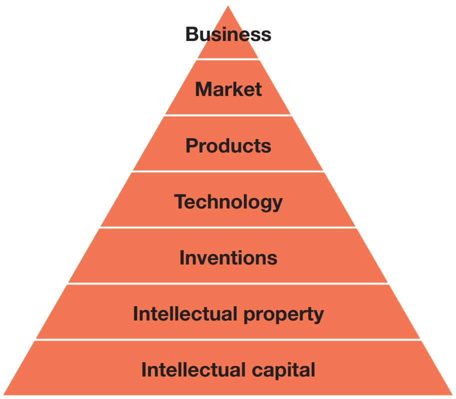
HighTechCo want to ensure it can use its IP with other partners for growth in the future, although it will trade off some limit of exclusivity. It is also important that HighTechCo's IP does not get diluted by BigCo, which has more resources to develop IP. Therefore, before the partnership, HighTechCo needs to build for exclusion and should brainstorm new applications of the technology in BigCo space and file these inventions. HighTechCo also needs a grant back of any IP developed by BigCo, so it is not limited in the future. As is typical in deals like this, HighTechCo should monitor BigCo's IP activity after the partnership to know what IP is available from the grant back.

The partnership may take the form of a joint development effort to take the HighTechCo device and marry (invent) its features to the needs of BigCo's market. Therefore, the partnership needs to leverage IP synergy across the value chain and should take the step of brainstorming inventions across the value chain to create new IP in the gaps between HighTechCo and BigCo.

Support

The support point of view relates to structuring the components of a business to provide the best possible foundation for success. Various business components can be visualised as the levels of a pyramid, in which each component relies on support

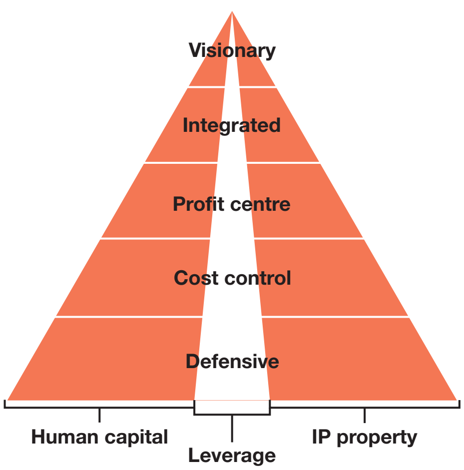
Figure 3. **Support point of view**



The support matrix

Support	BigCo	HighTechCo	Partnership
Before	**Need:** license-in supporting IP **Action:** strength analysis	**Need:** enforcement **Action:** invent for detection	
During	**Need:** own support IP **Action:** invent on top of		
After			

Figure 4. **IP hierarchy point of view**



The IP value hierarchy matrix

IP value hierarchy	BigCo	HighTechCo	Partnership
Before	**Need:** Wall Street		
During	**Action:** IP story		**Need:** IP high ground **Action:** IP extraction
After		**Need:** licensing **Action:** invent around	

Source: Julie L Davis and Suzanne S Harrison, adapted from *Edison in the Boardroom* (New York: John Wiley & Sons, 2001)

from the previous level. The purpose is to insure linkage between IP and intellectual capital (people and culture) and the business, market, product and technology. From the standpoint of partnering, the linkage between IP and business is more complex, as each entity needs to link its business to IP, but must ensure the partner and partnership is also linked; or, put another way, that one company's lack of support does not hurt the partnership.

For BigCo, a key issue comes up before the partnership: whereby it requires access to subcomponents of the device, which may not be part of either its portfolios or HighTechCo's. BigCo may need to license-in supporting IP, and should perform an IP analysis to identify potential licensees and run a strength analysis to find the best IP for licensing-in.

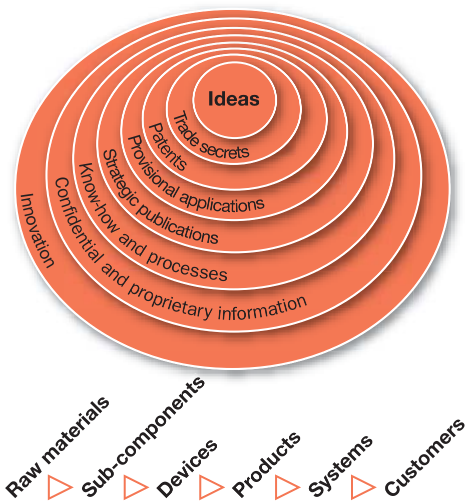
BigCo already excels at support in its business. During the partnership, HighTechCo will bring in IP and technologies to support BigCo's new products. BigCo will want to supplement that IP with new inventions in its areas of expertise to own support IP, such as packaging, large-scale manufacturing and product kits. To do this, BigCo should invent on top of the device IP to strengthen its portfolio.

HighTechCo's market and business are very different from BigCo's. It is looking to sell device technology not to consumers directly, but instead as a supplier to other businesses. In order for HighTechCo to support that market for the long term, it must retain rights (and preferably ownership) of all IP related to the device technology itself. Enforcement of IP will be critical for HighTechCo's success. Prior to the partnership, the company should invent for detection – that, is create inventions where infringement will be easily detectable.

IP value hierarchy

The IP value hierarchy point of view is based on concepts from the book Edison in

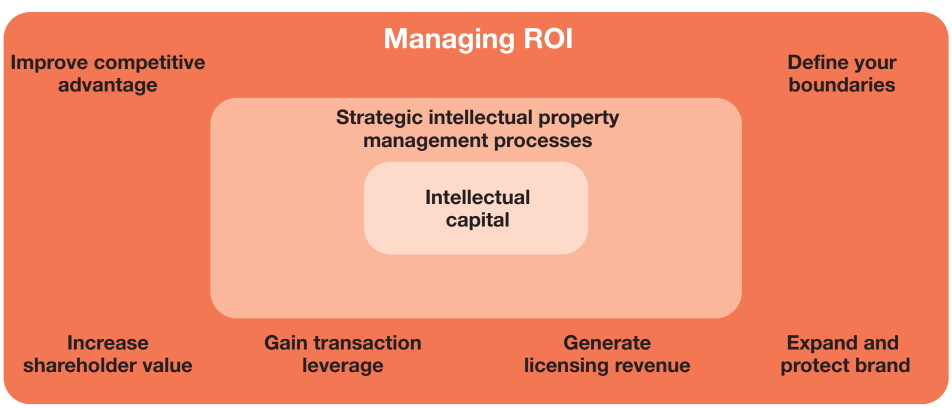
Figure 5. **Types of IP point of view**



The types of IP matrix

Types of IP	BigCo	HighTechCo	Partnership
Before		**Need:** freedom to operate **Action:** publish anonymously	**Need:** IP high ground **Action:** IP extraction
During	**Need:** maintain trade secrets **Action:** firewalling		
After			

Figure 6. **ROI points of view**



The return on investment matrix

ROI	BigCo	HighTechCo	Partnership
Before			
During			
After	**Need:** secure brand **Action:** use brand to brainstorm	**Need:** contractual leverage **Action:** brainstorm connection IP	

the Boardroom (2001), but has been expanded to differentiate between unrealised IP in the form of human capital/IP in development and existing IP (IP property). The IP value hierarchy shows that that IP has value in a company in a number of ways, from defensive position through strategically patenting and achieving cost control, to leveraging IP for licensing and ensuring integration of IP with the business, as well as providing visionary direction where IP is used to lead the company. From an open innovation standpoint, the IP value hierarchy demonstrates that it is important to understand in what place the IP value is created.

During the partnership, it is vital for BigCo to establish itself as a visionary in terms of its linkage between its actions and IP as it enters a brand new market. Therefore, BigCo may want to sell the new direction of the company to Wall Street by developing an IP story that demonstrates the value of the IP to the business and the new market opportunity (subject to regulatory guidelines).

HighTechCo's priority after the partnership will be using the IP as a profit centre to generate licensing revenues. In order to have the strongest portfolio for licensing, HighTechCo should invent around its own patents.

For the partnership, the IP value objective is to ensure that the IP opportunity cost is as low as possible. In other words, the team is focused on the partnership business missions and the technical personnel are developing the maximum amount of high-quality IP. The partnership needs to achieve IP high ground where all efforts are going towards the benefit of the partnership. The key IP action to meet that need is routine, unbiased IP extraction to capture and categorise all relevant IP.

Types of IP

The types of IP point of view presents the strategic options for capturing and protecting IP. It also provides a sample

Can open innovation replace traditional licensing?

Licensing intellectual property can be very lucrative, yet it is a difficult and lengthy process characterised by a high rate of failure. It takes a serious and prolonged commitment (sometimes measured in years) from both the licensor and licensee teams to agree upon the package and then negotiate acceptable terms. The nature of licensing tends to be adversarial instead of collaborative, as the licensor tries to demonstrate why the licensee needs its IP and the licensee considers how much financial benefit the IP might bring to its organisation. Both parties may have serious concerns about the technology transfer process and whether the technology will fulfil its ultimate promise when fully developed.

Licensing essentially involves building a new relationship with another company, but the process is fraught with challenges. You may have very little insight into the other company's goals and strategies, conflicting objectives, a great deal of money at stake and pressure to close the deal. No wonder it can be so difficult even to get in the door with a prospective licensee!

Fortunately, open innovation (OI) presents a viable alternative to licensing. The OI model's collaborative approach often achieves the same outcomes as licensing and many OI partnerships result in long-term licensing agreements after a phase of collaboration. We contend that OI should replace traditional licensing because it improves success rates, achieves a similar deal structure and avoids the pitfalls of traditional licensing.

A brief comparison of traditional licensing to an OI partnership can be found at the bottom of this box.

Transitioning from traditional licensing to an OI model does not have to be difficult. Similar resources are needed, including IP experts, negotiators, business leadership and the legal team. It is critical to identify and clarify ownership and rights to IP that belongs to each party and determine how any IP created by the partnership will be managed. The deal strategy framework discussed in the main body of the text provides a comprehensive platform for assessing yourself, a potential partner and the partnership itself prior to an alliance. The same framework is useful for predicting issues that may arise during the deal and planning for IP management after the alliance. Overall, the adoption of OI as a new approach may revolutionise licensing practices by increasing the success rate, building long-term relationships with partners and developing stronger and more valuable IP.

Traditional licensing and open innovation compared

Traditional licensing	Comparison	Open innovation partnership
It can be difficult to get in the door with a prospect	OI is an improvement	Companies are openly seeking OI partners; eg, Procter & Gamble's Connect & Develop portal
Companies may have very little insight into the other party's goals or objectives	OI is an improvement	Collaboration leads to mutual understanding, which can lessen risks and lead to other deals in the future
The timeframe can be quite long	OI is an improvement	The timeframe to agreement can be very short and length of collaboration is negotiable
In light of recent US Supreme Court case law, there is a higher likelihood that requests for licensing may lead to declaratory judgment litigation	OI is a potential improvement	Due to the nature of OI partnerships, it is far less likely that requests for licensing may lead to declaratory judgment litigation
Technology transfer can be complicated and rushed	OI is a potential improvement	Co-development replaces technology transfer and utilises the strengths of each partner to improve the technology
The IP is licensed as is	OI is a potential improvement	Joint IP can be developed to build on the original portfolio, giving both parties an opportunity for the rights to the new IP
The value of the IP is based on projected success at the time of the deal	On par with licensing	Licensors can increase the value of their IP to the partner by participating in the development process
Licensing revenue is the ultimate objective	OI is an improvement	OI partnerships typically include licensing rights that extend beyond the collaboration

Multiple OI IP strategies matrix

	BigCo	HighTechCo	Partnership
Alignment	**Before:** **Need:** period of exclusivity **Action:** map white space **During:** **Need:** freedom to operate **Action:** use enabled publications	**Before:** **Need:** build for exclusion **Action:** brainstorming new applications **Need:** grant back **Action:** negotiate for grant back **After:** **Need:** grant back **Action:** monitor BigCo's IP	**During:** **Need:** leverage IP synergy **Action:** brainstorm value chain
Support	**Before:** **Need:** license-in supporting IP **Action:** strength analysis **During:** **Need:** own support IP **Action:** invent on top of	**Before:** **Need:** enforcement **Action:** invent for detection	
Value	**During:** **Need:** Wall Street **Action:** IP story	**After:** **Need:** licensing **Action:** invent around	**During:** **Need:** IP high ground **Action:** IP extraction
Breadth	**During:** **Need:** maintain trade secrets **Action:** firewalling	**Before:** **Need:** freedom to operate **Action:** publish anonymously	
ROI	**After:** **Need:** secure brand **Action:** Use brand to brainstorm IP	**After:** **Need:** contractual leverage **Action:** brainstorm connection IP	

value chain to demonstrate that the preferred type of IP may differ depending on location in the process flow. The types of IP depicted include the accepted forms of IP protection, such as trade secrets, patents and provisional applications, but also earlier stages such as ideas and know-how.

The purpose of this point of view is to understand a company's approach to IP protection and evaluate how that may inform priorities in the negotiations. For example, a product manufacturer may utilise trade secrets to protect its raw materials, publications for the subcomponents and patents for the products. In a partnership, the product manufacturer will prioritise rights to the partnership's patents that cover the products, but may be able to cede patent ownership to a supplier partner in the area of subcomponents.

HighTechCo is concerned about being locked into a position where it can only supply device technology to BigCo. Because HighTechCo needs freedom to operate, its approach prior to the partnership should be to publish anonymously about applications of the technology in adjacent spaces.

During the partnership, BigCo is concerned about risks to its trade secrets for key compositions of matter recipes. Therefore, BigCo needs to ensure that this IP is firewalled during the partnership to limit the risk of exposure during the collaboration.

Return on investment

The return on investment or ROI point of view presents how companies can achieve returns from their innovation efforts. Each company is likely to have a distinctive set that matches its culture and business objectives. The main types to consider include: defining your boundaries; expanding and protecting the brand; generating licensing revenue; gaining transactional leverage; increasing shareholder value; and improving competitive advantage. Acknowledging which ROIs a company is striving for can inform both IP strategies and priorities. It is common for partners in a partnership to be seeking different types of ROI, which helps negotiate IP issues.

Before, during and even after the partnership, BigCo is focusing on enhancing its brand. In order to secure the brand with IP, BigCo should use brand characteristics as input for IP brainstorming sessions.

After the partnership, HighTechCo is looking to obtain transactional leverage by holding unique IP that differentiates it from competitors and helps it to earn contracts with other BigCo-type companies. HighTechCo is unsure where to seek new contracts, even though there are many possibilities. HighTechCo should brainstorm IP that connects its portfolio to other potential partners to obtain leverage prior to approaching other partners.

Strategic tool

The deal strategy framework helps to develop a working model of a partnership and addresses IP issues before, during and after an open innovation partnership. It is a valuable tool for thinking through multiple perspectives and considering the partnership as its own entity. The insights and knowledge developed in this process will influence IP strategy, resource allocation, structure of the contract and ultimately the outcome of the partnership. The deal strategy framework ultimately produces valuable information that informs decision making and strategic planning to optimise the success of each party and the partnership. *iam*