

# How Collaborative Innovation and Co-Creation Can Deliver Value: A Stakeholder Approach

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## 1. Executive Summary

This project explores how collaborative innovation and co-creation between stakeholders can deliver value for firms. An extensive literature review was carried out, along with qualitative interviews with senior managers responsible for or involved in collaborative innovation in their firms.

The authors propose the following definition of collaborative innovation:

*“Working with others, sharing knowledge and learning, and building consensus to invent something new or create a new way of doing something, with a view to realising shared goals.”* (Dibley et al, 2012).

Collaborative innovation can deliver a range of valuable results: an increased pipeline of better ideas, reduced risk, increased quality and speed to market, reduced costs, new skills, competences, resources and relationship assets, enhanced brand image, strength and influence, and the ability to create value for the common good.

The authors’ findings in relation to how collaborative innovation and co-creation can deliver value for stakeholders fall under three key areas: preparing your organisation; preparing your people and your partners’ people; defining and implementing the right approach. The suggested issues to address are summarised in the arrow diagram below. It may be valuable for firms to examine these issues, step-by-step, in order to improve their approach to collaborative innovation, and maximise the potential for value co-creation with stakeholders:

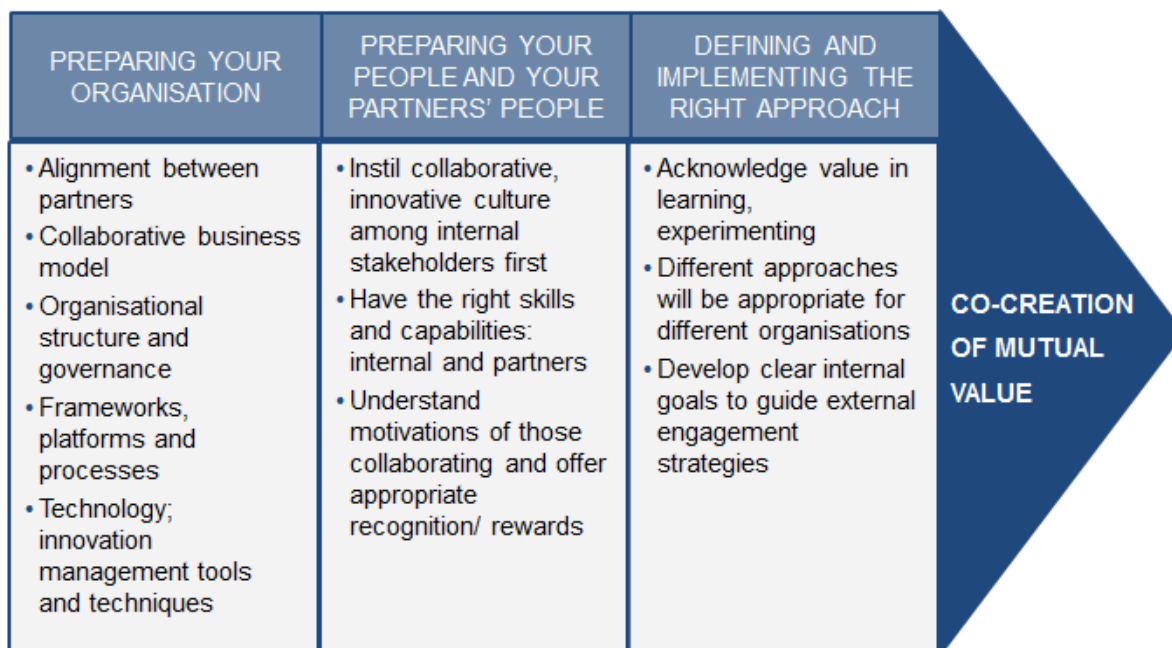


Figure 1: Collaborative Innovation: How to Create Value for Stakeholders?

Ensuring alignment between the collaborating firms’ processes and practices; checking that there is a shared vision and values relating to the goal of the collaborative innovation; making sure that commitment and trust exist between all partners: these aspects of

alignment are key considerations when preparing your organisation for collaborative innovation, and will be crucial to the success of your firm's collaborative initiatives.

It is also crucial for firms to develop open, fluid, flexible, dynamic 'win-win' business models; business models which must, themselves, be subject to continuous collaborative innovation, in the same way that the firm's products, services, and processes should be. It is then essential for a firm to ensure that it has a structure and governance in place that will support and enable these types of open, fluid business models: that is, a structure and governance that encourages collaboration, teamwork, and co-creation with internal and external partners.

Engagement platforms developed for collaborative innovation must put the stakeholder and his/her experiences at the centre of the innovation process; they must enable listening and learning, while maintaining dialogue, access and transparency. At the same time, organisations must ensure that all platforms are supported by appropriate technology tools, and clearly defined, well understood processes.

For a firm to be a collaborative innovator, it must also develop a culture that proclaims and recognises this aspiration in everything it does; the culture of the firm must recognise that stakeholder interactions are at the centre of its business. The importance of collaborative innovation should be demonstrated by top management, while both collaborative and innovative behaviours by employees should be recognised and rewarded.

Collaborative innovation will be most successful with external stakeholders if companies, first, recognise the value of collaborating and innovating with their internal stakeholders. This approach will serve to engage and motivate employees, while at the same time making them better equipped to relate and respond to the innovative suggestions of customers, partners, and other stakeholder groups.

For both internal and external stakeholders, it is essential for a firm to recognise why people are contributing their time and energy to a particular collaborative innovation initiative. The processes that underpin the initiative must be set up in such a way that they enable the participants to engage with others in the way that they wish to, as well as allowing participants to benefit from the particular personal, social and/or financial rewards that are motivating them to contribute.

The most successful collaborative innovators are those who are bold enough to experiment and take a 'leap of faith': those who are prepared to live with uncertainty regarding whether the collaboration will be commercially viable, as these are the firms who will benefit most from the value of learning.

Firms can tap into different 'markets' - collaborative communities or competitive markets – in order to engage with their stakeholders in the most effective way possible. There are many different models for collaborative innovation, representing varying degrees of openness, of control and of value integration on the part of the platform provider. It is clear that the right approach for any organisation will depend upon their particular needs and circumstances. Often, different approaches may be suitable at different times, and having a portfolio of approaches is usually advisable. Overall, it is wise for firms to demonstrate an openness to experiment with different approaches, and to re-evaluate the approaches selected on a regular basis.



This study suggests that innovating by collaborating with a variety of internal and external stakeholders is not a 'fad', but rather a process that will become increasingly ingrained in the ever-evolving business models of successful firms. The most successful firms will be those with the highest quality contributors and communities behind their innovation management processes. The authors propose that by giving due consideration to the areas and issues outlined above, firms will be equipped with a better understanding of how collaborative innovation and co-creation can deliver value for all stakeholders.

## 2. Introduction

This project explores how collaborative innovation and co-creation between stakeholders can deliver value for firms. In today's increasingly competitive and fast-changing global marketplace, firms must seek to develop more frequent and higher quality innovations (Ngugi et al, 2010). In addition, customers, employees and other stakeholders are demanding opportunities to co-create and collaborate with businesses more and more. As Ramaswamy (2010) comments:

*“Providers of products and services are challenged by customers who are increasingly informed, connected, networked and empowered. Customers, employees and stakeholders are demanding higher quality interactions and experiences from businesses and a deeper engagement in the value-creation and service delivery processes”* (Ramaswamy, 2010, pp. 22).

Given this increasing need to collaborate, innovate and co-create, firms need a better understanding of how they can engage in these activities in a way that maximises the value created for all stakeholders; this project, through exploratory, qualitative research interviews and a wide-ranging literature review, seeks to make a contribution in this area.



### 3. Research Methodology

An extensive literature review was carried out. The authors synthesised recent literature from both academic journals and practitioner sources covering the following areas: collaboration with suppliers, customers and other stakeholders; innovation; open innovation; collaborative innovation; value co-creation and service dominant logic. This allowed the authors to explore the area of collaborative innovation, positioning it within a value co-creation and stakeholder perspective.

In addition, 60-90 minute qualitative interviews were carried out with senior managers responsible for or involved in collaborative innovation. Senior Managers from four organisations participated in the research, covering the following sectors: healthcare; NHS; telecommunications; technology. The interviewees remain anonymous, but their job titles give a flavour of their responsibilities: Senior Healthcare Development Manager and Project Manager; Service Development Manager; Director of Global Customer Innovation; Innovation Program Manager.

Probing, open-ended questions were put to the respondents, and all interviews were recorded and transcribed. A discussion guide was sent to each respondent in advance, to allow them to prepare for the interview (see Appendix 1: Discussion Guide). The interviews focused on drawing out concrete examples of successful collaborative innovation, identifying the value that was gained from this collaborative innovation, and understanding how this value was created. All data were analysed by assessing the content and classifying the key points that emerged into thematic groupings. In this report, the key findings from the interviews have been added to key findings from the literature review, and presented under the appropriate headings in section 6 (Collaborative Innovation: How to Create Value for Stakeholders).

## 4. Understanding Collaborative Innovation and Co-Creation

### 4.1. Towards a Definition of Collaborative Innovation

In order to arrive at a definition of collaborative innovation, the authors examined, first, the concept of innovation. The Encarta dictionary defines innovation as, “a *new invention or way of doing something*” (Encarta, 2011). It is important to recognise that innovation does not simply refer to new product development but can relate to a whole range of areas:

*“not only to the introduction of new products and processes, but also major changes in management practices, business structure, organisation or marketing strategies, and investments in the implementation or development of future products or processes.”* (Ngugi et al, 2010, pp. 261).

In similar vein, Birkinshaw, Bouquet and Barsoux (2011) assert that, while historically managers equated innovation mainly with the development of new products and technologies, increasingly, innovation is seen as:

*“applying to the development of new service offerings, business models, pricing plans and routes to market, as well as new management practices. There is now a greater recognition that novel ideas can transform any part of the value chain – and that products and services represent just the tip of the innovation iceberg.”* (Birkinshaw et al, 2011, pp. 43).

Ngugi et al (2010) explain the importance of innovation, linking it directly to a firm’s competitive advantage, and stressing that it is fundamental to the survival and growth of organisations.

Birkinshaw et al (2011) put forward the view that innovation is not just the preserve of designers, engineers and scientists, but should be viewed as an “*all the time, everywhere capability that harnesses the skills and imagination of employees at all levels*” (Birkinshaw et al, 2011, pp. 43). They do recognise, however, that this can be difficult, given capacity, time and motivation issues around participation.

Innovation, then, can apply to any area of the business, and can be stimulated by any person involved in the business. We can therefore argue that collaboration becomes crucial for effective innovation to take place. A synthesis of various descriptions of collaboration leads us to suggest the following definition:

*“A process where two or more people or organisations work together to realise shared goals, by sharing knowledge, learning and building consensus”* (based on Marinez-Moyano, 2006; Merriam Webster’s Online Dictionary, 2007; Encyclopaedia Britannica Online, 2007).

Pulling together our definitions of innovation and collaboration, we propose the following definition of collaborative innovation:

*“Working with others, sharing knowledge and learning, and building consensus to invent something new or create a new way of doing something, with a view to realising shared goals.”* (Dibley et al, 2012).

## 4.2. Understanding Value Co-Creation

The concept of value co-creation is rooted in a service-centred view of marketing. Vargo and Lusch, among other leading academics, argue for a shift in marketing away from a goods dominant logic, and towards a service dominant logic:

*“Customers do not buy goods or services: they buy offerings which render services which create value... The traditional division between goods and services is long outdated. [...] The shift in focus to services is a shift from the means and the producer perspective to the utilization and the customer perspective.”* (Gummesson, 1995; cited in Vargo & Lusch, 2004, pp. 2).

Vargo and Lusch go on to argue that, *“marketing has moved from a goods dominant view, in which tangible output and discrete transactions were central, to a service dominant view, in which intangibility, exchange processes, and relationships are central. [...] The service centered dominant logic represents a reoriented philosophy that is applicable to all marketing offerings, including those that involve tangible output (goods) in the process of service provision.”* (Vargo & Lusch, 2004, pp. 2).

The argument, therefore, is that marketing is all about providing services which can help generate value for the customer, regardless of whether the firm is providing something tangible or intangible. Furthermore, this value is always generated in collaboration with the customer, as he or she uses the services provided. As Prahalad and Ramaswamy (2004) assert, value is not embedded in goods or services but in personalised experiences, i.e. value-in-use.

This concept of value co-creation is summed up by Vargo and Lusch (2004), as follows:

*“The service-centered view of marketing is customer-centric [...]. This means more than simply being consumer oriented; it means collaborating with and learning from customers and being adaptive to their individual and dynamic needs. A service-centered dominant logic implies that value is defined by and co-created with the consumer rather than embedded in output.”* (Vargo & Lusch, 2004, pp. 6).

Grönroos (2000) highlights the crucial role that customers play in value co-creation, as he refers to suppliers as facilitators of value creating processes:

*“Value for customers is created throughout the relationship by the customer, partly in interactions between the customer and the supplier or service-provider. The focus is not on products but on the customers’ value-creating processes where value emerges for customers and is perceived by them. [...] The focus of marketing is value creation rather than value distribution, and facilitation and support of a value-creating process rather than simply distributing ready-made value to customers.”* (Gronroos, 2000, pp. 24-25)

In this service-centered view of exchange, the goal is described, as follows:

*“the goal is to customize offerings, to recognize that the consumer is always a co-producer, and to strive to maximize consumer involvement in the customization to better fit his or her needs.”* (Vargo & Lusch, 2004, pp. 12).

Ojasalo (2010) suggests that, *“co-creation’ means collaboration in the creation of value through shared inventiveness, design, and other discretionary behaviours.”* (Ojasalo, 2010, pp. 171).

In our examination of the literature cited above, the focus has been on co-creation of value between suppliers and customers. However, the concept of value co-creation need not be limited to these two groups; in this research project, we apply this concept to the collaborative creation of value between a firm and any of its stakeholders.

## 5. What are the Drivers of Collaborative Innovation and Co-Creation?

Fast-changing markets and increasing global competition are stimulating the need for more frequent and higher quality innovations (Bughin et al, 2008; Ngugi et al, 2010). Changes in the external environment are also driving and facilitating increased collaboration:

*“Digitization, ubiquitous connectivity, networking, globalisation, sustainability, inclusive growth, and the recognition from the recent financial and economic crisis that more transparency, communication, interaction and engagement are necessary in the system.”* (Frigo, 2010, pp. 69).

Advances in technology have clearly caused a seismic shift towards the possibility of ever-increasing collaborative approaches. As Gummesson, Lusch and Vargo (2010) assert, *“the internet, email and mobile communication offer a new infrastructure for commercial and social [communication]”* (Gummesson et al, 2010, pp. ). In an interview with Leavy and Moitra (2006), Prahalad argues that the continuing emergence of virtual communities will change the very nature of business:

*“If cell phones, PCs, or both, now connect two billion people, to pretend that nothing is changing in the way business will work makes no sense. The key drivers of this change are the connected consumer and ‘thematic consumer communities.’ Communities today do not have to be ‘location-bound.’ [...] The evidence of a sea change in the institution of business is there for us to see”* (Leavy & Moitra, 2006, pp. 4).

Bughin et al (2008) argue that the rise of the worldwide web as a participatory platform, along with economic and competitive pressures, will encourage more open approaches to innovation by firms:

*“What facilitates this new approach to innovation is the rise of the Web as a participatory platform. What will drive its adoption by an increasing number of companies is the growing competitive need to uncover many more good ideas for products and to make better and faster use of those ideas.”* (Bughin et al, 2008, pp. 112).

Chesbrough (2007) also asserts that the economic pressures on innovation should drive companies towards more open approaches and open business models:

*“As development costs rise and as product life cycles become shorter, the net result is that companies are finding it harder to justify their innovation investment. [...] Open business models address both effects. It attacks the cost side of the problem by leveraging external research-and-development resources to save time and money in the innovation process. Open business models also attack the revenue side. P&G, for instance, is creating new brands by licensing technologies from other companies around the world, resulting in products like the SpinBrush, a battery-operated toothbrush, which generated first-year sales of \$200 million. And P&G is also getting money from licensing its technologies to other firms.”* (Chesbrough, 2007, pp.24).

These more open approaches result in a higher degree of collaboration and value co-creation: by following these approaches, firms can co-create value together, for the mutual benefit of all parties involved. As Western countries face low or zero-growth economies, and organisations focus increasingly on sustainable approaches to business, greater collaboration between firms and their stakeholders would appear to make good sense. There is, however, another argument in favour of a new era of collaboration: a phenomenon described by Benkler as, ‘the unselfish gene’:

*“For generations, we have operated on the assumption that human beings are fundamentally selfish, and so we have built systems and organizations around monetary incentives, rewards, and punishments. That hasn’t always worked very well. Now the tide is starting to turn. In fields such as evolutionary biology, psychology, sociology, political science, and experimental economics, researchers are seeing evidence that human beings are more co-operative and behave far less selfishly than we have long assumed. The success achieved by such collaborative offerings as Wikipedia, Craigslist, Facebook, and open source software has, in fact, a scientific basis. Dozens of field studies have identified highly successful co-operative systems, which are often more stable than those based on incentives. Moreover, researchers have found neural and possibly genetic evidence of a human predisposition to cooperate. Evolution may actually favour people who collaborate and societies that include such individuals”* (Benkler, 2011, pp. 76)

Benkler (2011) suggests that firms would do better to harness these unselfish sentiments, building collaborative systems by encouraging communication, ensuring that any claims about community are authentic, and, *“fostering a feeling of solidarity, being fair, and appealing to people’s intrinsic motivations”* (Benkler, 2011, pp. 76). The worldwide web facilitates this kind of co-operative approach; Gloor and Cooper (2007) describe this co-operative, unselfish behaviour as ‘swarm creativity’, and comment on how the web has expanded the ability of humans to engage in swarm behaviour:

*“With no central direction, bees self-organise to build nests, feed and nurture offspring, gather food and even decide on their next queen. Similarly, groups of humans swarming together for a common purpose can constitute a powerful collective mindset that unleashes tremendous creativity, spurring exciting and valuable innovations”* (Gloor & Cooper, 2007, pp. 81).

Gloor and Cooper (2007) cite the example of Tim Berners-Lee and others who were driven by an intrinsic motivation to tackle a technological challenge; everyone cared deeply about the cause rather than rank, status or money:

*“As the development of the Web exemplifies, selfless behaviour is often the fuel that propels great ideas forward, and this sense of altruism permeates many successful swarm innovations. Indeed, members of a swarm typically reject the traditional business notion of building shareholder value as the basis for their decisions and actions. In its place, the swarm works toward the collective interest of stakeholders, which is broadly defined as any party that can affect or is affected by the innovation. From a business perspective, this includes more than just shareholders but also employees, customers, suppliers, partners and even competitors.”* (Gloor & Cooper, 2007, pp. 81-82).

The web, then, is seen as a powerful driver of collaborative innovation, as, *“swarms can form instantaneously and collaborate on innovative tasks almost anywhere on the planet, crossing*

*all geopolitical borders and cultural lines. In every large company as well, groups of creative individuals form collaborative networks, irrespective of any direct or immediate connection to the bottom line. These networks are self-organized by people who are intrinsically motivated to explore and develop ideas that they care deeply about” (Gloor & Cooper, 2007, pp. 82).*

In summary, there are a number of factors driving businesses towards collaborative innovation and co-creation. Ever-increasing competition and harsh economic conditions play an important role, while technology is a crucial enabler: the web as a participatory platform, the ease of connectivity, the emergence of virtual communities all offer firms the possibility of collaborative innovation on a scale never seen before. If Benkler and Gloor are correct, the web also enables firms to tap into and stimulate people’s co-operative instincts. This could herald a new era of collaboration, inclusive growth, and a shift in focus away from creating pure shareholder value to a clearer aspiration to co-create value for all stakeholders.



## 6. What Type of Value is Derived from Collaborative Innovation?

The literature reveals that value is gained from collaborative innovation and co-creation in a range of different ways. Firstly, as new ideas and fresh perspectives come from a range of parties, this can lead to a new kind of stronger innovation. For example, Nike and Apple have partnered successfully to deliver innovative offerings by leveraging each other's unique capabilities (Frigo, 2010). These collaborative approaches are also believed to drive greater financial returns, growth and profitability. At IBM, for example, *"For the past three years we have observed a steady stream of collaborative innovation that has achieved significant business value at relatively low cost"* (Newbold & Azua, 2007, pp. 636). Similarly, collaborative innovation is said to have brought Eli Lilly more new products, an improved innovation pipeline, and increased revenues, (Owen et al, 2008, pp. 43). Owen et al (2008) cite evidence of the financial value of collaborative innovation, asserting that, *"The strongest collaborators in a recent IBM study were also the strongest financial performers"* (Owen et al, 2008, pp. 39).

Another benefit of collaborative innovation is that it brings with it the ability to share and manage business and financial risk. According to Frigo (2010):

*"The co-creative enterprise is an enterprise that engages all stakeholders in managing risk and returns through co-creation. [...] Co-creation offers a way to help an enterprise manage these risks effectively and to reduce uncertainty by building value creation processes of the enterprise together with stakeholders"* (Frigo, 2010, pp.18).

Collaborative innovation can also increase the speed to market for new offerings through improved development cycle times (Ngugi et al, 2010). Munsch (2009) asserts that a more 'open model' approach to innovation can deliver the three clear benefits that we have discussed above:

*"1. New ideas can be contributed from a much larger range of parties and from different perspectives [...]. 2. Business and financial risk can be mitigated [...]. 3. Speed to market may be accelerated by particular contributions made by other partners or contributors in the ecosystem"* (Munsch, 2009, pp. 48).

Enhanced product quality and higher operational quality are also cited as value gained from collaborative innovation (Ngugi et al, 2010; Möller et al, 2008), along with the benefits of reduced development and production costs (Chesbrough, 2007). Owen et al (2008) assert that collaborative innovation has brought Airbus reduced manufacturing lead times and cost reductions, while Swink (2006) comments on a number of cost and time saving and waste reduction effects. Swink (2006) refers to studies which demonstrate that early adopters of collaborative innovation have experienced many concrete business improvements, including:

*"Cutting proposal/quoting cycle times by as much as 50%. Improving development cycle time from 15-25%. Reducing new product introduction time by 15%. Boosting first pass yield up to 90% from as low as 10%. Raising performance to schedule 95% from an industry average of 50-60%. Reducing non value-added work up to 60%. Cutting new part number introductions up to 10%, and increasing design re-use by 20%. [...] Eliminating manufacturing scrap and reducing re-work from 10-15%"* (Swink, 2006, pp. 38).

Firms can also gain value from collaborative innovation by acquiring new competences and knowledge from partners, and benefiting from the integration of complementary resources and relationship assets (Ngugi et al, 2010; Bughin et al, 2008). Firms can also benefit

indirectly from the co-creation process through an enhanced brand image (Bughin et al, 2008; Möller et al, 2008).

Tierney (2011) discusses the value that collaborating with competitors can bring firms, arguing that, although difficult, it can give firms greater strength and influence, while delivering results that can help those most in need in society. Tierney (2011) gives examples of partnerships helping, for instance, troubled youths or needy families:

*“Collaboration among competitors is an unnatural act – but sometimes it’s the best way to reduce costs, leverage strength, accelerate scale, or amplify influence in order to generate results. [...] Collaboration among unlikely allies is achieving change in the world of social enterprise. [...] Collaboration isn’t easy – that’s why it is still far too infrequent across all forms of social enterprise. But when peer organizations honestly embrace shared goals and clearly articulate how they will achieve them, collaboration works. Most important is believing that a group – even of competitors – can accomplish what no one member could do alone”* (Tierney, 2011, pp. 38).

In this way, collaborative innovation can create value that can be shared across communities and other stakeholder groups, bringing substantial benefits to society.

Overall then, collaborative innovation can deliver a range of valuable results: an increased pipeline of better ideas, reduced risk, increased quality and speed to market, reduced costs, new skills, competences, resources and relationship assets, enhanced brand image, strength and influence, and the ability to create value for the common good.

## 7. Collaborative Innovation: How to Create Value for Stakeholders?

In this section, we propose a series of ways in which firms can create value for and with stakeholders through collaborative innovation, based on findings from the literature and from the qualitative interviews that were carried out. Analysis revealed that our findings relate to three key areas:

1. Preparing your organisation
2. Preparing your people and your partners' people
3. Defining and implementing the right approach

As such, all findings will be categorised under these three over-arching headings.

Coding: When quoting from the qualitative interviews, organisations will be referred to as O1, O2, O3, and O4; respondents will be referred to as R1, R2, R3, and R4.

### 7.1. Preparing your Organisation

#### 7.1.1. Alignment Between Partners

Grönroos and Helle (2010) propose a framework for measuring mutually created value in business relationships in the manufacturing sector; in this work, they discuss the importance of alignment between suppliers and their customers. They assert that by matching customer practices and aligning corresponding processes, resources and competencies, suppliers can support their customers more effectively, and thus enable customers and themselves to create incremental value that can be shared between business partners. They propose, for example, that business partners should have access to accounting data, and that customers and suppliers should be willing to open up their books. They believe that productivity should be considered as a joint concept, allowing firms to share the gains created through mutual value creation (Grönroos & Helle, 2010).

Bonney et al (2007) also highlight the benefits of suppliers and customers aligning their processes and practices, as well as the need for alignment in terms of trust, commitment, and a shared vision. Indeed, they describe these factors as precursors for co-innovation between firms in value chains. They describe the case of Houston's Farm business and its desire to co-innovate with its key partners in the value chain – the seed breeder and the supermarkets:

*“Co-innovation becomes possible when there is a shared vision between the partners, compatible structures and processes, opportunities for mutual benefits and co-operation, and the presence of trust and commitment”* (Bonney et al, 2007, pp. 399).

Referring to Houston's Farm, they comment that, *“The lack of structured processes and the lack of consumer insight are the only significant barriers to achieving more co-innovation”* (Bonney et al, 2007, pp. 399).

In the authors' qualitative interviews, the need for shared values and a shared vision of desired outcomes between partners emerges very strongly. For example, in the collaborative innovation project run by a healthcare company and an NHS Trust, the Strategic Development Manager (Healthcare company) commented:

*“A surprise that came out [...] was how similar the shared values of both organisations were. We wouldn’t even consider embarking on something if it didn’t embrace those values. [...] It’s important to be clear on what we both bring to the party.” (O1, R1).*

In a similar vein, the Service Development Manager from the partner organisation (NHS Trust) commented on the crucial importance of mutuality and shared values: *“You need a clear understanding of what each party wants – an honest, trusted view.” (O2, R2).*

In this case, a total belief in and understanding of the goal – to improve patient outcomes - was firmly shared by both parties.

Similarly, a Director of Global Customer Innovation (telecommunications company) commented that one of the most important factors in making collaborative innovation successful is:

*“Being clear about where the value is, the mutual value. Having your eye on the end game: what’s in it for the customer, what’s in it for you?” (O3, R3).*

The crucial importance of a shared vision between collaborating partners is echoed by an Innovation Program Manager (technology company):

*“[The collaborative innovation must be] based on a shared vision, a shared mission around particular subjects, because without [...] having everyone marching in the same direction to achieve the same goal, it’s difficult to get people to collaborate; everyone’s too busy trying to play separate agendas [...]. It has to be of value to all stakeholders” (O4, R4).*

Ensuring alignment between the collaborating firms’ processes and practices; checking that there is a shared vision and values relating to the goal of the collaborative innovation; making sure that commitment and trust exist between all partners: these aspects of alignment are key considerations when preparing your organisation for collaborative innovation, and will be crucial to the success of your firm’s collaborative initiatives.

### 7.1.2. Collaborative Business Models

Before discussing the types of business models that are appropriate for collaborative innovation, let us first define what we mean by the term, ‘business model’. Put simply, it is ‘how a firm makes money’. Ho et al (2010) define a business model as, *“a structural template of how a focal firm transacts with customers, partners and vendors”* in order to create value (Ho et al, 2010, pp. 171).

Gloor and Cooper (2007) firmly believe that traditional business models are becoming increasingly outdated:

*“When technology, innovations and ideas are being shared openly, and when competitors are increasingly giving their products away for free, how long can the old business objectives of short-term gain and quick riches really last?” (Gloor & Cooper, 2007, pp. 83-84).*

Gloor and Cooper (2007) believe that for companies to thrive they need to seek out and support collaborative innovation networks outside their organisational boundaries, as well as those that exist within their own walls. They recommend embracing the principles of a ‘swarm’ business, concentrating on the swarm (e.g. contributors, developers from online communities as well as from within the organisation), not on making money:

*“Companies need to build value for the swarm first. Only after they accomplish this will they uncover the business model that will lead to profits. [...] They will view swarms as their stakeholders, and place the interests of those groups above that of their shareholders.”* (Gloor & Cooper, 2007, pp. 83).

In a similar vein, Ho et al (2010) discuss how new boundary-spanning business models are required to co-create value most effectively in today’s global, competitive market-place:

*“Globalization, an intensely competitive environment, and the emergence of information and communications technology have blurred corporate boundaries, and have expanded the roles of market participants (buyers, suppliers, competitors, complementary products), and reached across the industry. [...] Boundary-spanning business models best demonstrate that an organization must be connected with the external environment so that it can effectively sense and seize market opportunities”* (Ho et al, 2010, pp. 171).

They comment that these more fluid business models may involve several firms, and may even span different industries; the business model as a broad, dynamic organisational form, is replacing the traditional ‘firm’ or ‘industry’ as a unit of analysis (Ho et al, 2010). They give the example of Apple’s business model as one that achieves innovative, cross-boundary collaborations: Apple’s iPod (hardware) is linked with iTunes (software) and iTunes Music Store (music store network), allowing consumers to download different types of software and music, meeting individual customers’ needs, and boosting sales of iPods (Ho et al, 2010).

Nenonen and Storbacka (2010) also discuss how value creation has evolved from value creation by the manufacturing firm to value creation in a network. They argue that a firm can radically improve value co-creation by redesigning its business model, so that it has, *“a high degree of internal and external configurational fit”* (Nenonen & Storbacka, 2010, pp. 43).

Ojasalo (2010) describes a business model that can drive value co-creation:

*“The company – customer relationship is a set of interactions focused on a series of co-creation experiences, and building relationships drives financial value.. [...] Value is co-created in learning together [...]. Customers are in a proactive role and involved at every stage of service development. [...] In co-creation, new levels of access and transparency are needed.”* (Ojasalo, 2010, pp. 174).

According to Ojasalo (2010), value co-creation strategies should focus on building or tapping into ‘value networks’; this calls for active interaction anytime, anywhere, initiated either by the firm or its customers.

Lusch and Webster (2011) discuss the implications for firms of co-creating value in a network world: *“In a network world, it is critical for enterprises to realize and operate as if marketing is no longer simply a separate business function, [but has] management responsibility within a broad network enterprise where the interests of many stakeholders [must be considered]”* (Lusch & Webster, 2011, pp. 129). The business model must, therefore, reflect the fact that the firm itself operates as a network, serving a network of stakeholders.

A business model that is well adapted to collaborative innovation will work on the basis that co-creative relationships with collaborative partners will be mutually beneficial. Fine (2010) describes it as a win-win relationship model rather than zero-sum:



*“If I can force a price cut down your throat, I gain, you lose, it’s zero-sum. [...] Zero-sum is modular architecture. Win-win is integral architecture. Among other things, companies that build integral value chains are incentivizing their suppliers to share innovation, because the attitude of the players is, we’re all in this together and we benefit collectively from innovation, and there’s a long-term trust-based relationship such that I know if I give you an innovation, we’ll share the wealth” (Fine, 2010, pp. 23).*

Fine draws a distinction, however, between mature and younger industries. He argues that this type of business model based on an integral value chain may not be appropriate in younger, less stable industries, given the difficulty in determining who to have long-term, trust-based relationships with (Fine, 2010).

Tapscott & Williams (2005) describe how, in most industries today, *“innovation increasingly depends on dense networks of public and private participants and large pools of IP that routinely combine to create end products”* (Tapscott & Williams, 2005, pp. 56). Again, the importance of creating a business model with a fluid, dynamic, flexible nature emerges strongly:

*“Companies need an eco-system that includes lots of partners, and people developing designs and putting them together as customer solutions. That’s why vertically-integrated R&D is yielding to joint ventures, licensing, outsourcing, and peering. And it’s the reason hierarchical enterprises must adopt business-web models, where innovation is collaborative, distributed, and open”* (Tapscott & Williams, 2005, pp. 56).

Chesbrough has written extensively on the subject of open innovation (2007; 2011), describing it as a business model that can offset the trends of rising development costs and shorter product life cycles: *“Companies must experiment with creative ways to open their business models by using outside ideas and technologies in internal product development and by allowing inside intellectual property to be commercialized externally”* (Chesbrough, 2007, pp. 27). He believes that the old ‘not invented here’ syndrome has now been largely rejected in most industries. In addition, more companies are allowing their unused internal ideas and technologies to go outside for others to use in their business (Chesbrough, 2011).

Chesbrough & Schwartz define open innovation as follows:

*“the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively”* (Chesbrough & Schwartz, 2007, pp. 55).

Knowledge, then, flows freely in and out of the firm to stimulate innovation. Brez (2009) provides a useful description of open innovation, while at the same time highlighting the benefits it offers:

*“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. Co-operating 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”* (Brez, 2009, pp.21).

To make open innovation truly effective, however, a firm also needs to adopt an ‘open strategy’ (Chesbrough & Appleyard, 2007). Without this, it will not be possible to make strategic sense of new ideas. In a recent article, Chesbrough (2011) comments on how open innovation is leading to more collaborative innovation management, and he asserts

that business model innovation will become as important as technological innovation. Chesbrough and Schwartz (2007) suggest that the establishment of co-development relationships can be an important mechanism for a firm to innovate its business model. As discussed in section 7.1.1, alignment between the parties is key to a sustainable relationship: Chesbrough and Schwartz (2007) propose that, as well as aligning business objectives, alignment of the business models of each firm is crucial:

*“Aligned business models are complementary: if you execute your model well, your partner will benefit, and vice versa. Such alignment increases the chances that the co-development partnership can be sustained over time and perhaps even expanded”* (Chesbrough & Schwartz, 2007, pp. 58).

We have discussed general models of open innovation, but let us now consider the approach that lies at the extreme end of this spectrum: open source innovation. While open innovation seeks new ideas both within and outside the firm’s boundaries, it usually operates within the existing management paradigm. Open source innovation, however, requires the most radically new business model, as it redefines the corporation itself (Euchner, 2010). Euchner asserts that open source innovation is increasingly important in the development of everything from software (e.g. Linux) to sports equipment:

*“In the open-source software model, there is no owned IP. Anyone can access, use, and modify the code. A large, and largely anonymous crowd contributes to the development of the software. [...] The uses [...] dictate the direction of the product. Open innovation in this context means open governance, open IP, open direction.”* (Euchner, 2010, pp. 7-8).

With this model, then, firms must relinquish control of IP, which can be threatening to the corporate R&D structure, but can lead to other sources of competitive advantage, such as voluntary contributions, speed to market, and customer intimacy. Secondly, an open source mindset means that firms must be prepared to shift the locus of control of innovations closer to the user community. This can be challenging as, even in open innovation models, the firm’s product/service management and marketing group generally retain decision-making power in this area. With the open source model, *“networks have enabled users to radically redefine the role of the firms that supply them”* (Euchner, 2010, pp. 7-8).

Euchner (2010) goes on to say that, firms that truly understand the ways in which community contributions can add value to their business, create platforms that enable their user community to innovate. This may be through technology platforms, such as the Android smartphone platform; customer platforms, such as open source software; or platforms for contributing to designs produced elsewhere (Euchner, 2010): *“Open source approaches to innovation require business models that can survive in a more open world. [Open source innovation] involves much deeper changes to corporate culture and innovation practices than have been embraced to date”* (Euchner, 2010, pp. 7-8).

Most firms, of course, have not adopted an open source innovation business model. There are, however, many examples of companies who have begun to open up their approach to innovation in a way that impacts on the way they run their business overall – and vice versa. Edvardsson and Enquist (2011) argue that Ikea’s innovation management is in harmony with a strong set of ethical values that are shared by the company, the customer, and the wider society; sustainability and corporate social responsibility are the key drivers of value resonance and service excellence. Edvardsson and Enquist (2011) describe Ikea’s model as, ‘the service excellence and innovation model’, providing business platforms (such as



physical and web-based experience rooms) that facilitate their customers' service experience, service brand and marketing communication, based on strong, shared ethical values. (Edvardsson & Enquist, 2011).

According to Gloor and Cooper (2007), BMW provides a good example of a firm that has embraced the principles of swarm creativity (discussed at the beginning of this section):

*"BMW posts numerous engineering challenges on its website, where customers and company designers network and collaborate to arrive at innovative solutions. [...] [BMW] has shown an exciting ability to embrace swarm creativity and the collective intelligence of its internal employees and external customers"* (Gloor & Cooper, 2007, pp. 82).

Owen et al (2008) hold up Eli Lilly as an example of a firm that has helped set the standards in its industry for collaborative innovation. From the mid-1990s, it began to cultivate an extensive network of external partners in the biotech sector, academia, and other innovation centres, as a major component of its overall innovation strategy. In 2001, it brought together its R&D prospecting group, its corporate business development group, and a newly created Office of Alliance Management, under one organization dedicated to 'sourcing innovation'. This helped break down barriers among groups that might otherwise have competed, and ensured a systematic, ongoing approach to its growing network of external partners. According to Owen et al (2008), a sampling of partnerships and revenues generated for 2006, demonstrates the link between collaborative innovation and improved financial performance.

Mele et al (2010) provide a fascinating example of the way in which Italtapack Cartons' approach to collaborative innovation among network partners has led to successful resource integration. Mele et al (2010) argue that by framing innovation within a service dominant logic perspective, the locus of innovation is shifted from product to value, and, *"the notion of value is transformed from measured units of output to interactive processes that integrate resources"* (Mele et al, 2010, pp. 75). Mele et al (2010) describe a case where Italtapack Cartons' packaging innovations originated from a customer's need and were subsequently developed through the contributions of several players with whom Italtapack maintained close relationships. Italtapack was the focal point of these various innovative energies. Mele et al (2010) describe how this open, dynamic, resource-integrating approach led to the co-creation of value:

*"Corporate customers have gone beyond their traditional role as consumers of packaging to become innovation partners of the focal company – not only as a source of stimuli and new ideas, but also as co-designers and co-producers – thus providing greater value-in-use for the ultimate end-users. Moreover, the innovation projects actively assisted corporate customers to develop their businesses in new and existing markets. [...] The relationship between Italtapack and its customers was thus both a case of collaborative co-production of innovation outputs and a case of collaborative co-creation of value. [...] The case study shows that interaction among the network partners was a significant enabler of organisational learning and knowledge transfer [...] which fostered the integration of resources from one partner with the processes of other parties [...]. The innovation process was not merely a chain of intra-firm activities, but a network of inter-firm processes that blurred conventional organisational boundaries"* (Mele et al, 2010, pp. 74-75).

Another powerful example of firms embracing collaborative innovation beyond their own organisational boundaries is highlighted by Gobble (2010): European telecommunications

companies. Gobble (2010) asserts that while, traditionally, research was kept tightly guarded, now, some of Europe's biggest telecommunications companies are establishing:

*“a more venture capital driven environment [...] cultivating stronger links with start-up founders, academics [...] and other commercial partners. [...] Big players invoke an approach to innovation that engages the entire value chain – operators, suppliers, academics, [...] and above all, customers – in the development of new products and services”* (Gobble, 2010, pp. 2).

Gobble (2010) cites the examples of Telefónica, France Telecom and Alcatel-Lucent Bell Labs. She believes that, as collaboration is central to the European Union's R&D framework programme, this is driving much of the shift towards collaborative innovation.

The Director of Global Customer Innovation interviewed for this research project paints a similar picture of a business model supporting strong, collaborative innovation at his own telecommunications company:

*“[The Company] has undergone innovation around its organisational model. We have restructured to drive the business from the customer in. [...] We have moved from being an insular business to being a collaborative business internally, and then the logical extension of that is collaboration with customers. [...] We collaborate with internal stakeholders, partners, industry, universities, government, communities, as well as customers”* (O3, R3).

The respondent commented that, culturally, the organisation has shifted from an internal to an external focus.

For collaborative innovation to be successful, then, firms require open, fluid, flexible, dynamic 'win-win' business models; business models which must, themselves, be subject to continuous collaborative innovation, in the same way that the firm's products, services, and processes should be. Firms are at different stages of development in terms of their adoption of this new type of business model. However, we have seen examples of new approaches to collaborative innovation which are steadily moving firms towards more open business models, as conventional organisational boundaries become increasingly blurred.

### 7.1.3. Organisational Structure and Governance

It is essential for a firm to have a structure and governance in place that will support and enable the types of open, fluid business models discussed above. Cisco provides a clear example of an organisation that has structured itself in a way that encourages collaboration, teamwork, and co-creation with internal and external partners. It suggests how a large global business, *“can operate as a distributed decision-making and risk management system where leadership development happens organically, strategy making is not exclusive but in fact inclusive, innovation is collaborative and organizational change and governance [are] a co-creative process.”* (Ramaswamy, 2010, pp.28). For example, sales and channel-facing teams have been stream-lined around specific architectures and business segments; sales and delivery teams have been engaged in co-shaping internal governance, to overcome conventional silos, and to create, 'One Cisco':

*“Cisco's internal 'councils, boards, and working groups' model [...] has been critical to the successful governance of its Commerce Transformation initiative, in which customers, partners, and sales representatives can communicate on unified engagement platforms, whether discussing content, configuring products, placing and tracking orders, renewing*

*maintenance agreements, or evaluating leasing options. ‘Councils’ are established where Cisco believes it has a \$10 billion opportunity, ‘boards’ are created for \$1 billion opportunities, and ‘working groups’ [...] for more tactical initiatives related to a board or council. [...] Six months after the initial project roll-out in early 2008, the platform had attracted more than 9,000 partner-users from around the world and had processed 37,000 deals worth \$1.2 billion. By mid-2009, there were close to 20,000 partner-users on the platform, and 56,000 deals worth \$3.92 billion had been processed.” (Ramaswamy, 2010, pp.25-26).*

According to Ramaswamy (2010), Cisco’s structure and governance recognise the central role of individuals both inside and outside the organisation, whether as employees, customers, or any other stakeholder. The structure and governance also recognise that individuals’ experiences and their interactions with each other are the new locus and basis of value creation. In this way, Cisco is becoming a genuine, network-based organisation.

Cisco has effectively flattened many parts of its organisational structure to encourage cross-boundary collaboration. Owen et al (2008) also advocate this type of horizontal alignment to reduce barriers to collaboration across functional groups, divisions, geographies and other silos. They also recommend changes in job functions, responsibilities and performance measurements, as well as HR approaches, such as training, compensation, recruitment and selection to, *“further ingrain collaboration for innovation into the culture”* (Owen et al, 2008, pp.39-40). In terms of governance, Owen et al (2008) recommend reaching agreements with partners covering potential areas of conflict such as decision-making processes and ownership of intellectual property (IP). They caution that, *“the financial and contractual agreements that result from these discussions are crucial to the success of the relationship”* (Owen et al, 2008, pp.40).

The importance of structuring and organising the firm to encourage collaborative innovation is echoed in the qualitative interview with an Innovation Program Manager (04, R4). The latter commented that the firm’s innovation focus is on finding opportunities to create business improvements in three main areas: people, processes, and technology. The Innovation Europe division looks to innovate specifically in six categories: partners; operational excellence; architectures and technology; markets and segments; people and change; and services. The Innovation Program Manager believes that this clarity of organisation helps to keep everybody focused on the most important areas for innovation.

#### **7.1.4. Frameworks, Platforms and Processes**

Following on from the need for clear structure and governance, is the importance of then having the right frameworks, platforms and processes in place to enable collaborative innovation to flourish. In Birkinshaw et al’s (2011) research, many companies indicated that they were relatively good at generating new ideas, either within the company or outside its boundaries, but that their performance dropped for every successive stage of the innovation process. They cite examples of brainstorming or ‘ideation’ sessions generating interesting ideas, but stress that if firms lack the processes and resource to follow up these events, this can be disempowering for everyone involved.

McCormack and Forbath (2008) advise taking a learning-driven approach to designing collaborative processes, and they stress the importance of creating an infrastructure, *“a set of tools and standards for sharing data – that allows dispersed teams to work together*

*seamlessly [...]. Successful firms manage collaboration as a coherent program, not a series of stand-alone efforts.*" (MacCormack & Forbath, 2008, pp.24).

Ramaswamy (2010) believes that the key to success is to develop engagement programmes and processes, *"that enable interactions among all stakeholders everywhere in the system, with the goal of creating greater value by fostering more rewarding experiences"* (Ramaswamy, 2010, pp.22). Frigo (2010) gives a useful description of the key elements an engagement platform should contain, to increase its chances of success. He asserts that it should focus on the experiences of individuals in all stakeholder groups, building new relationships through dialogue, transparency, and access across the business network:

*"What's key is to focus on the experiences of individuals – be they customers, suppliers, partners, employees, investors, or other stakeholders – and the context of their interactions that generate those experiences"* (Frigo, 2010, pp.17-18.)

The need for new levels of access and transparency is echoed by Ojasalo (2010), who advises firms to develop strategies that focus on tapping into value networks, through repeated, active interaction, anywhere and anytime in the system, initiated either by the customer or the company, listening and learning together (Ojasalo, 2010).

Orange presents a good example of new engagement platforms and processes that have been specifically developed to facilitate collaborative innovation, in both the business-to-consumer (B2C) and business-to-business (B2B) arena, as well as with their own employees. Firstly, they recognise and accept how influential and empowered their customers are:

*"They talk, discuss, rank, and challenge any piece of information about our products or our company that we share with them...or not"* comments Alban martin, social network specialist at Orange (Ramaswamy, 2010, pp.22).

When Orange promotes its Web services, if the first five entries related to their services on search engines are bad reviews from users, there is little likelihood that the product will take off:

*"In an online world where everything is one click away, and information is hyper-fluid, Orange has had to adapt by opening more avenues to interact with customers and benefit from their empowerment everywhere in the ecosystem. [...] Call it '360-degree co-creation.'"* (Ramaswamy, 2010, pp.22-23).

Orange actively participates in social networks and has co-created applications such as the Orange TV guide on Facebook, which allows customers to interact with the content. Orange has developed long-term relationships with Facebookers and bloggers, *"all eager to discuss and sometimes challenge the latest products that Orange launches, [...] enabling them to interact with us when they need something, and not always when Orange needs them for something special"* (Ramaswamy, 2010, pp.23). This approach benefits everyone: bloggers can access premium information for their audiences, while Orange can count on the bloggers in a crisis, *"because they know the company well and can acknowledge its efforts to address serious issues"* (ibid).

The development of engagement platforms in a B2B context is similarly designed for maximum transparency and dialogue: Orange has opened up its R&D process to the outside world through its web-based Livebox Lab engagement programme, which provides information ranging from technical specifications to contacts and connections:

*“The Lab encourages the submission of B2B partnership ideas and product proposals. Such access to information is essential for potential external partners working on complementary products. The risk of sharing ‘home recipes’ with competitors is a key concern, [...] but the benefit of opening up access overrides it. Orange has received many ideas through Livebox Lab and has already launched several products initiated through this channel, such as LiveRadio, a wi-fi device enabling the streaming of hundreds of Web-radio channels”* (Ramaswamy, 2010, pp.24).

Orange also co-creates business networks, facilitating interactions among entrepreneurs through a variety of collaboration tools. For example, ‘La Cantine’ is a co-working environment in Paris for entrepreneurs, created in partnership with an organisation called ‘Silicon Sentier’ which aims to help French start-ups. The entrepreneurs can also attend Orange Partner Camps and workshops, which Orange follows up by connecting start-ups with venture-capital backing.

Another effective initiative, this time aimed at employees, is an ‘intrapreneurial’ engagement platform called ‘idClic’. Employees are encouraged to come up with new ideas - for example, on process improvement, facility optimization, or product revamping – to promote the idea through a blog, and earn points (and thereby gain visibility) by commenting on other employees’ ideas:

*“Of the many thousands of ideas Orange has received, over 2,300 have been implemented, generating over 400 million euros of savings and revenues. By promoting internal entrepreneurship, Orange has unleashed a flood of innovation that never surfaced in its traditional hierarchical and structural organization”* (Ramaswamy, 2010, pp.24).

Cisco’s I-Prize initiative is another example of an effective engagement platform which has opened up the organisation’s innovation management process to a variety of stakeholders: its ecosystem of business partners, its customers and also the general public. Specific innovation themes are chosen, anyone can contribute ideas, and then prizes, grants and seed capital can be awarded to the winning entries (Ramaswamy, 2010).

Cisco encourages its stakeholders to ‘think big’, to bring to life its vision of, *“inspiring innovation that changes the way we work, live, play and learn”*; for example, a recent I-Prize initiative – ‘Your Country, Your Call’ – which was run in collaboration with the Irish Government, requested ideas on how to help solve Ireland’s economic crisis. Cisco worked closely with the Government to define the areas in which the latter wanted to innovate, and to help them with the process and the technology to enable the competition to run successfully. Approximately 130,000 people took part, and roughly 9,000 new ideas were generated in response to 10-12 innovation categories. Following a lengthy evaluation process with Accenture, two winners were selected. The winning ideas which are currently in development, focus on the ways of using data centre technology to turn Ireland into the world’s best media hub (interview with Cisco spokesperson, September, 2011).

P&G’s Connect+Develop ‘infostructure’ initiative has been one of the most successful engagement platforms in recent years, although it is worth noting that this initiative was piloted and developed over a ten year period (Birkinshaw et al, 2011). It is a platform of software and services which creates and manages collaborative innovation eco-systems. A spokesperson from P&G comments:


*“This platform looks quickly and broadly at where the opportunities are, and who has the expertise. The faster we can identify a potential solution provider, and determine a fit with*



*our strategy and needs, the faster we can develop a win-win collaboration and thus deliver innovations that will touch and improve consumers' lives"* (Anonymous, 2011).

Ramaswamy comments that CEO A.G. Lafley has transformed P&G by putting the consumer at the centre of everything, tripling profits to \$10+ billion, from 2000 (when he took the reins) to 2007. Lafley:

*"implemented innovation as an integrated process of driving sustained organic growth at P&G, based on a rallying idea of, 'the consumer is boss. [...] Few [companies] actually put the customer at the center of the innovation process [...]. P&G has also opened up the fragile front-end of the innovation process to get ideas from anywhere at anytime, using communications technologies to access and take advantage of 'the best brains in the world cutting across industries, countries and age groups.' Also, P&G observers journey to different parts of the globe to make new product connections. P&G's Connect+Develop initiative enables P&G to leverage creativity globally, outside corporate walls, to co-create products, packages, and technical solutions with partners. Besides buying proven ingredients and licensing technologies from technology entrepreneurs, P&G also uses external innovation platforms such as Innocentive and NineSigma to find solutions to scientific problems, as well as to tap into the pool of retirees for their technical expertise"* (Ramaswamy, 2009, pp.32).



## Open to ideas

P&G's Connect + Develop open innovation strategy has established more than 1,000 active agreements with innovation partners. Connect + Develop enables us to share our R&D, commercialization and brand strength with partners worldwide, bringing great ideas to market—and into the lives of consumers—faster.

HOW SWIFFER DUSTERS GOT THEIR START

Figure 2: P&G's Connect+Develop – Website

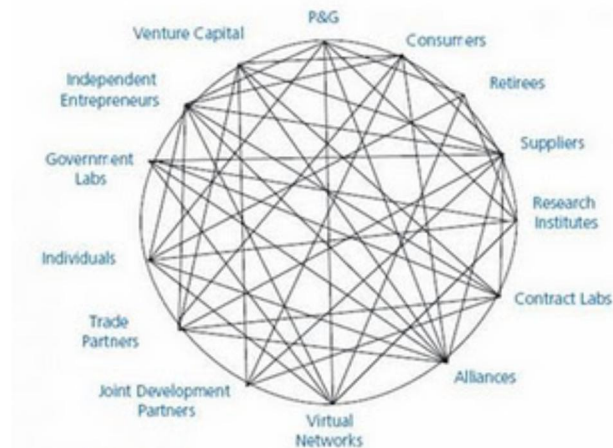


Figure 3: P&G's Connect+Develop – Stakeholder Interaction

P&G is clearly committed to engaging with a wide spectrum of stakeholders at many levels. In 2010 it expanded the Connect+Develop programme, so that today, P&G uses it to collaborate with: consumers, retirees, suppliers, research institutes, contract labs, alliances, virtual networks, joint development partners, trade partners, individuals, government labs, independent entrepreneurs, and venture capital firms. It is supported by a robust, stage-gate process to help manage ideas from generation to launch. Connect+Develop is part of a wider effort to intersect with other disciplines and gain fresh perspectives; for example, in 2008, P&G and Google swapped two dozen employees for a few weeks; P&G wanted greater exposure to online models, while Google was interested in learning about how to build brands. P&G has also brought in outside talent to address needs beyond its core capabilities; for example, it acquired expertise in franchise-based business models that it would have taken years to build organically. In 2010, P&G stated that it aims to become the partner of choice for innovation collaboration, and to triple Connect+Develop's contribution to P&G's innovation development; this would mean deriving \$3 billion dollars of the company's annual sales growth from outside innovators (Brown & Anthony, 2011).

It is worth re-emphasising that these engagement platforms can add value due to leading edge technology tools and effective processes that carry ideas through from creation to fruition. Birkinshaw et al (2011) add a word of caution regarding the use of such platforms, advising that tools and processes should be adapted depending on the nature of the problem. In their research, they discovered that, while for some organisations, engagement platforms helped to galvanise the company's innovation efforts, for others, the results were, at best, mixed. The risks of such platforms are that ideas generated are, *"off-topic, half-baked or irrelevant. [...] The notion that good ideas would be picked up by others and rise to the top rarely worked out"* (Birkinshaw et al, 2011, pp.46). They recommend a mix of online and face-to-face forums, concluding that online forums can work effectively for capturing and filtering large numbers of existing ideas; while in-person forums are more effective for generating and building on new ideas. They also advise that top-down and bottom-up innovation efforts must work in harmony, ensuring that bottom-up innovation projects get the sponsorship they need to survive (Birkinshaw et al, 2011).

In the authors' qualitative interviews, the importance of defining clear processes, within an appropriate structure and framework, emerges strongly.

The Strategic Development Manager (pharmaceuticals company) firmly believes that:



*“It’s the model that creates the value; the processes, the different elements of the programme that are delivered to the patients; it’s the way the whole package is pulled together” (O1, R1).*

The Director of Global Customer Innovation (telecommunications company) commented:

*“To make innovation work, it needs a degree of structure and process. It doesn’t have to be constraining. Unless you connect that process, it’s difficult to accelerate things, to actually have impact. [...] For me, innovation is about the commercial exploitation of new ideas. So it’s about execution. [...] You’re not going to execute unless you’ve got some kind of framework and structure that allows you to move quickly through some gates that take it from concept, to prototype, to build, to trials” (O3, R3).*

The Innovation Program Manager (technology company) echoed this sentiment:

*“In a company the size of [O4], it isn’t just going to happen automatically. You need to support it, you need a process [...] to really make it successful” (O4, R4).*

The Innovation Program Manager (technology company) emphasised the importance of having the right technology tools to support the organisation’s processes:

*“Without technology, I wouldn’t be able to collaborate effectively, with all the people across the world that I normally would come into contact with. [...] Using innovation management tools, for example, collaboration technology [tool], helps enable innovation. [...] Employees, customers and partners are connected as part of the process in Innovation Europe. The Innovation Program Manager and the technology tools help to enable the joining up, connecting the dots, breaking down the silo activity and mentality” (O4, R4).*

The Innovation Program Manager emphasised that the way they organise themselves to enable innovation is key, and he describes their 5-step process:

Find → Filter → Evaluate → Select → Develop

At the stage of filtering ideas, a clear screening process is implemented. Every idea is given a score from 1-5 against each of the following three criteria:

- Value
- Strategic alignment
- Feasibility

Ideas which gain the full 15 points will be implemented; ideas which score 8+ will be developed; while ideas that gain 3-5 points will be ‘parked’.

In this section, we have examined some best practice examples of engagement platforms, and seen how, through these platforms, organisations can innovate collaboratively with a wide spectrum of stakeholders. The key to success is putting the stakeholder and his/her experiences at the centre of the innovation process; listening and learning, and maintaining dialogue, access and transparency. At the same time, organisations must ensure that all platforms are supported by appropriate technology tools, and clearly defined, well understood processes.

## 7.2. Preparing Your People and Your Partners' People

### 7.2.1. New Organisational Skills and Capabilities

In the same way that successful collaborative innovation requires firms to develop new business models, it also requires firms to develop new skills and capabilities. Starting at the very top of the organisation, new qualities of collaborative leadership need to be present. Ibarra et al (2011) comment on what it takes to be a collaborative leader:

*“It requires connecting people and ideas outside an organisation to those inside it, leveraging diverse talent, modelling collaborative behaviour at the top, and showing a strong hand to keep teams from getting mired in debate”* (Ibarra et al, 2011).

Adler et al (2011) define the organisational capabilities required by a collaborative enterprise, stating that they must create an atmosphere of trust and must provide co-ordinating mechanisms. Specifically, they believe that collaborative firms must learn to:

- *“Define a shared purpose that guides what people at all levels of the organization are trying to achieve together;*
- *Cultivate an ethic of contribution in which the highest value is accorded to people who look beyond their specific roles and advance the common purpose;*
- *Develop scalable procedures for co-ordinating people’s efforts so that process-management activities become truly interdependent; and*
- *Create an infrastructure in which individuals’ spheres of influence overlap and collaboration is rewarded.”*

(Adler et al, 2011)

Clearly, then, collaborative enterprises need to be able to tap into the ideas of all their stakeholder groups in an organised, efficient way. Owen et al (2008) highlight the point that for a firm to embrace collaborative innovation, this may require a culture change over a period of time. The authors assert that strong leadership is required to develop and communicate the strategic direction of collaborative innovation throughout the organisation. The leadership team must establish an organisational climate that fosters collaborative innovation, and must eliminate elements that act as barriers to collaboration. The right kind of performance management and continuous learning are also crucial:

*“To be able to motivate and reward collaboration, it is vital to establish performance measurements [...] so that team and individual performance can be measured against them. Continuous learning and improvement are also critical. This includes defining and building capabilities for idea generation, relationship management and collaboration. For optimal results, knowledge gained through collaboration should be captured, shared and re-used”* (Owen et al, 2008).

Birkinshaw et al (2011) also focus on the need to embed a new culture, where everyone in the organisation has a shared sense of what the company is becoming, and where innovation is supported, for example by celebrating successes, but also by destigmatizing failure. In practical terms, employees need to be given time out from their usual activities to experiment and develop new ideas, by focusing on eliminating non value-adding activities.

Ramaswamy (2009) asserts that, if leaders recognise that true value creation lies in *“interactions among individuals everywhere in the system”*, then it makes sense for organisations to be designed to function around these interactions, *“the challenge is that organizations have been designed around their internal activities, which is where value was thought to lie”* (Ramaswamy, 2009, pp.37). Ramaswamy (2009) believes that, *“acting in real time in response to the changing needs and desires of customers and stakeholders, is the job of all managers”* (pp.37). This journey towards a culture of co-creation can happen by, *“muddling through”* by, *“evolutionary experimentation”*, by, *“rapidly learning and de-risking”* or by, *“navigating with foresight through the fog of uncertainty,”* all based on some form of *“inside-out employee co-creation that links with co-creation externally”* (Ramaswamy, 2009, pp. 35-36).

In addition, the need for stronger relational capabilities is highlighted by Ngugi et al, (2010) to enhance the opportunities for innovation and co-creation of value. MacCormack and Forbath (2008) comment on the need to reflect the importance of ‘softer skills’ in their HR processes:

*“Successful firms alter their recruitment, training, evaluation, and reward systems to focus on ‘soft’ skills such as communication, so that managers can better learn to motivate and coordinate team members who are outside the firm”* (MacCormack & Forbath, 2008, pp.24).

Comments from the authors’ qualitative interviews concur, firstly, with the view that the importance of collaborative innovation needs to be communicated and demonstrated by senior management:

*“Senior leadership is totally influential regarding how and when it happens. It starts with the leadership, then has to cascade down”* (O4, R4).

The need to give employees time, space and encouragement during their daily activities in order for innovation to happen, also emerges from the qualitative interviews; for example:

*“Everyone can do it [creativity] but I think you can train people to be better at it; you need physical, innovation workshops; you need to give people time and space”* (O4, R4).

In addition, the importance of collaboration and innovation need to be embedded in the culture of the firm:

*“Innovation [...] can easily be postponed or sidelined when there are day job priorities to deal with. It depends on the climate, the environment, and the way people are led”* (O4, R4).

Overall, then, for a firm to be a collaborative innovator, it must develop a culture that proclaims and recognises this aspiration in everything it does, and that organises itself with stakeholder interactions at the centre of its business. The importance of collaborative innovation should be demonstrated by top management, while both collaborative and innovative behaviours by employees should be recognised and rewarded.

### 7.2.2. Start with Internal Stakeholders

Frigo’s (2010) view is that companies become good at collaborating internally first, so it is important for firms to start with co-creation inside the organisation, before opening it up to external stakeholders. Frigo (2010) asks:

*“External stakeholders are ready to engage and co-create. But is the enterprise ready?”* (Frigo, 2010, pp.18).

Frigo (2010) recommends an 'inside-out' approach, first building a platform for engaging employees in a dialogue about their experiences, and on how their interactions with other stakeholders can be improved. He then recommends expanding this platform to engage employees in generating ideas. As a third step, he advises opening the platform to external stakeholders, gaining consensus with them, sharing actions, and learning about stakeholder experiences in order to redesign offerings and business processes accordingly.

Ramaswamy (2009) concurs with the view that co-creation must begin inside the organisation:

*"In reality, the co-creation journey always begins inside the organization"* (Ramaswamy, 2009, pp.32). He gives the example of HCL (Hindustan Computers Ltd) who successfully set up co-creative employee engagement initiatives:

*"In order for the organization to co-create a unique customer experience, it must co-create an empowered employee experience 'inside' the organization"* (Ramaswamy, 2009, pp.33).

Similarly, when IBM was advocating a perspective on innovation that required transparent, open collaboration and global accessibility, in 2004, it put a strong focus on innovation through collaboration with employees. The IBM leadership team aimed to demonstrate that every employee could be an innovator (Newbold & Azua, 2007):

*"Our intent was to involve all our employees in solving our most persistent IT challenges and in improving their work experience"* (Newbold & Azua, 2007, pp.635).

Starbucks provides an interesting example of how to engage internal stakeholders in the process of co-creating value with external parties. In 2008, Howard Schultz, founder of Starbucks coffee, launched MyStarbucksIdea.com to engage customers in generating new ideas of value to them, and to drive business value for the firm. Frigo (2010) believes that the platform has been successful because:

*"it has dedicated employees called 'Idea Partners' who carry and champion the reviewed and chosen ideas inside the organization, replying to and discussing suggestions, and having a continuous conversation with customers. Howard Schultz has referred to this as a 'seeing' culture – i.e. getting people inside the organization to relate to external customer experiences. And [...] they actually get to iterate on solutions while they are building them"* (Frigo, 2010, pp. 17).

Employees are, therefore, engaged and motivated as they can see that their involvement has a real impact on decision-making, and that their actions can make a real difference to customers.

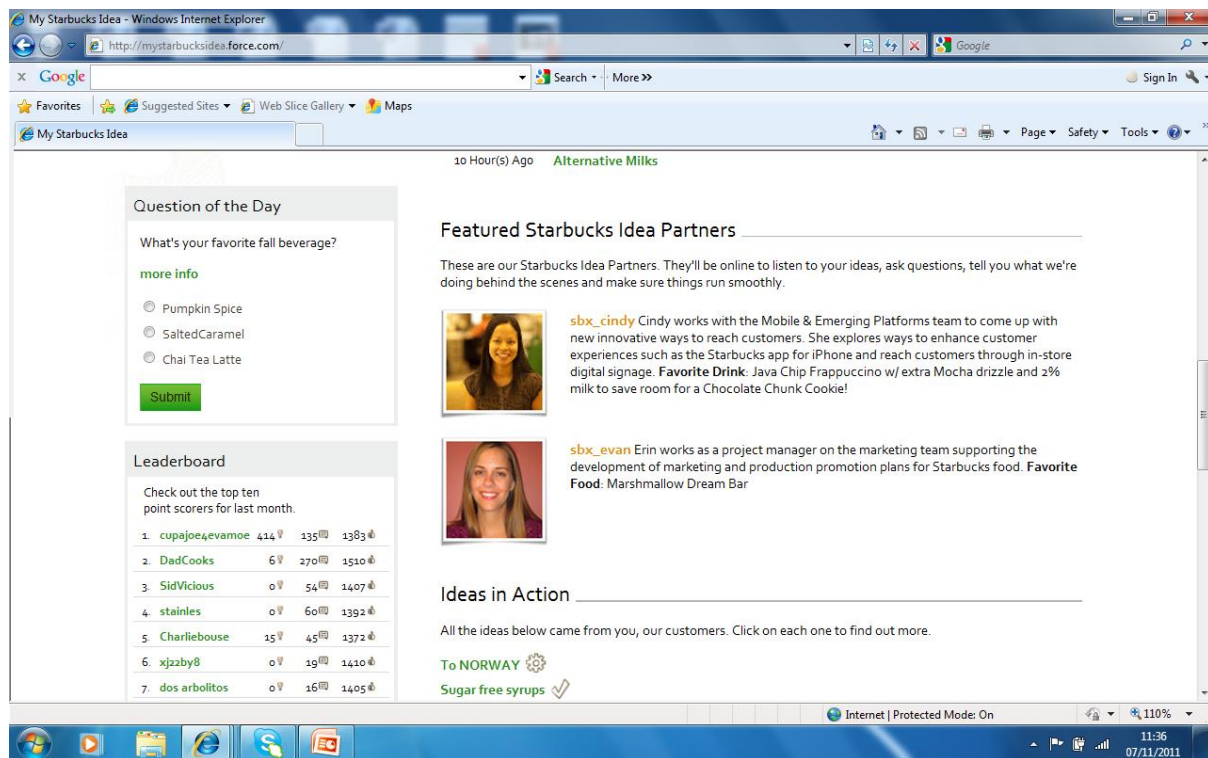


Figure 4: Starbucks Idea Partners

It is believed, then, that collaborative innovation will be most successful with external stakeholders if companies, first, recognise the value of collaborating and innovating with their internal stakeholders. This approach will serve to engage and motivate employees, while at the same time making them better equipped to relate and respond to the innovative suggestions of customers, partners, and other stakeholder groups.

### 7.2.3. Motivations, Recognition and Rewards

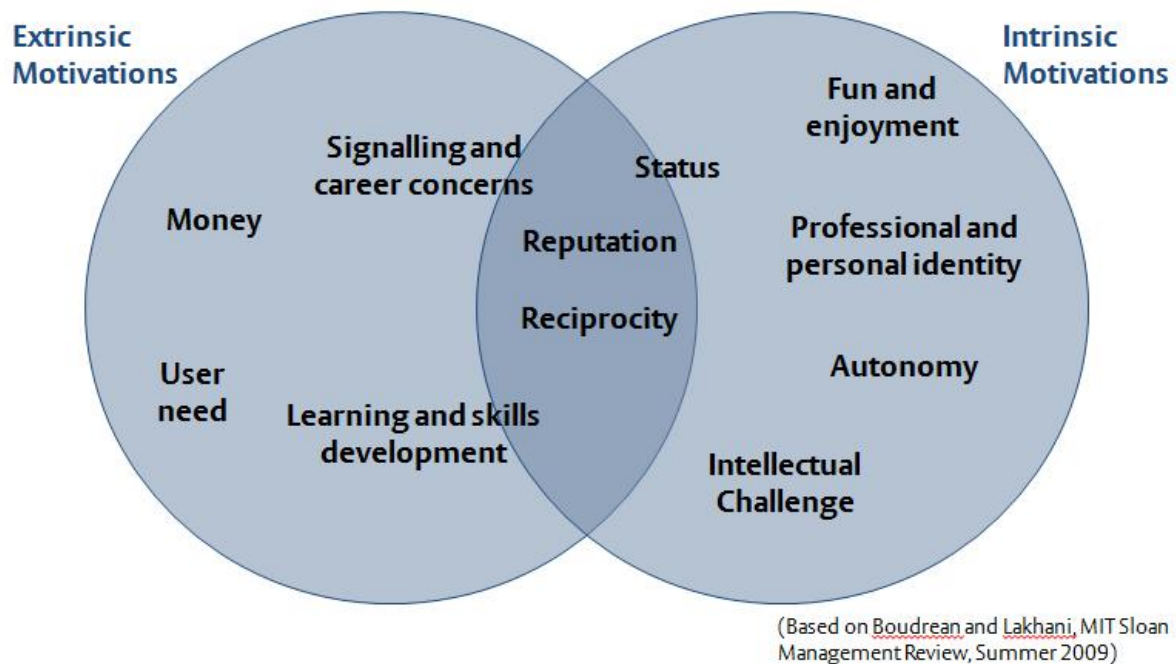
It is important for firms to understand the motivations of both internal and external stakeholders to participate in collaborative innovation. Birkinshaw et al (2011) assert that people are often motivated to participate in innovation more by personal factors (for example, pleasure) and social factors (for example, recognition and status), rather than by financial reward. Birkinshaw et al (2011) give the example of UBS bank where the innovation effort took place at grassroots level, and caused considerable upheaval at senior levels of the bank. An online innovation tool: 'UBS Idea exchange' was introduced. The executive in charge of the innovation effort commented:

*"We found that employees having an opportunity to put forward their ideas brought huge personal rewards. We learned very clearly (through our experiments) that financial rewards would not have made any difference. People reported that recognition of their ideas was a reward in itself. They wanted to be engaged and to participate. We therefore involved people in presenting their ideas to senior management"* (Birkinshaw et al, 2011, pp.48).

Smart companies should, therefore, consider the potential personal and social drivers behind collaborative innovation, rather than simply the material drivers.



Boudreau and Lakhani's (2009) research focuses on the motivations of external innovators and, here too, they find that these motivating factors can be surprisingly heterogeneous. Boudreau and Lakhani (2009) assert that these motivations can be classified into two categories – extrinsic and intrinsic. As a simple approximation, competitive markets tend to favour the former, and collaborative communities are more oriented toward the latter.



**Figure 5: What Motivates External Innovators?**

Extrinsic motivations include financial rewards; an example of this would be third party companies that develop software for the Nintendo Wii platform, as these companies may largely be driven by the potential profits of their efforts. Other extrinsic motivations include wanting to acquire certain skills by participating in the innovation process; or a person may have a desire to enhance a technology because he or she uses this technology. Participation in open innovation can also help establish one's reputation, build relationships, or signal one's talents to a wide group of innovators and potential employers, for example, SAP taps into this motivation: it has an open network through which volunteers provide solutions to customer enquiries (Boudreau & Lakhani, 2009).

Intrinsic motivations include pure enjoyment. For some contributors, participation is not perceived as work, for example, Wiki contributions. Intellectually challenging tasks can attract high participation from outsiders, especially when contributors feel they are part of a wider cause. Many will participate for free, or at a loss. Contributors can also gain a sense of status and identity through their participation (Boudreau & Lakhani, 2009).

Boudreau & Lakhani (2009) suggest that when designing platforms for collaborative innovation, companies need to choose carefully between a competitive market and a collaborative community. The choice the firm makes will, it is believed, affect the types of

external innovators who participate, and the level of effort and investment they devote to the innovation process. Boudreau and Lakhani (2009) assert that different organisational mechanisms are required, depending on whether a firm decides to engage with a collaborative community or a competitive market: communities require mechanisms that encourage knowledge exchange and interactions among members, and that embody a culture of sharing, learning, affiliation and identity.

Competitive markets require the implementation of formal and competitive mechanisms that will tend to discourage most of a community's essential qualities (for example, knowledge sharing etc). Markets require mechanisms to ensure the direct flow of income to external innovators; such mechanisms do not exist in collaborative communities (Boudreau & Lakhani, 2009). (See section 7.3.2 for more information on different approaches to collaborative innovation).

The authors' qualitative interviews also identify a range of motivations for participating in collaborative innovation. For example, the Strategic Development Manager (pharmaceuticals company) and Service Development Manager (NHS Trust partner) working on a patient-focused project, are clearly motivated by the goal of delivering better patient care. The Innovation Program Manager (technology company) summarises the range of personal, social and financial drivers that make people want to collaborate:

*“What are you going to get out of it personally? Different things motivate different people. Sometimes you might collaborate on something where the reward is around enhancing people's lives, [...] seeing people enjoying a better life through something you've done as a team. Or, producing new technology that changed the way people live. [...] Or, you might get to the end of a project and deliver it as you were instructed to, and you might get some recognition or financial reward for doing so. Getting the right incentive in place is key; [...] otherwise, I think you can struggle with getting people to collaborate, if they're not going to get anything out of it” (O4, R4).*

Clearly, then, for both internal and external stakeholders, it is essential for a firm to recognise why people are contributing their time and energy to a particular collaborative innovation initiative. The processes that underpin the initiative must be set up in such a way that they enable the participants to engage with others in the way that they wish to, as well as allowing participants to benefit from the particular personal, social and/or financial rewards that are motivating them to contribute.

## **7.3. Defining and Implementing the Right Approach**

### **7.3.1. Acknowledge Value in Learning and Experimenting**

If organisations who wish to be successful collaborative innovators can design the right business model (see section 7.1.2) and develop the right organisational skills and capabilities (see section 7.2.1), then this should lead to a recognition of the inherent value that lies in learning and experimenting. When discussing value networks (people and firms working together to co-create value), Lusch et al (2009) state that:

*“The competitive advantage of such a value network – which is held together by competencies, relationships and information that shape value propositions – is dependent on the network's ability to learn” (Lusch et al, 2009, pp.19).*



In Bonney et al's (2007) research into co-innovation opportunities between Houston's Farm and their key partners in the value chain (the seed breeder and the supermarkets), they also conclude that:

*"Critically, partners must adopt a learning attitude in whatever they do together to create an environment for co-innovation"* (Bonney et al, 2007, pp.396).

MacCormack and Forbath (2008) comment that companies that excel at using partnerships to innovate are known for doing many things well; for example, working out how collaboration can increase value for their business, and organising themselves to work effectively with partners. They go on to say, however, that:

*"What isn't widely appreciated is how much time and effort these companies put into getting better at collaborating [...] Leading firms make significant investments to develop their collaborative capabilities – for instance, by experimenting to learn what processes and practices work best [...]. Our worldwide study of collaborative innovation reveals that this willingness to invest in improving partnering capabilities is one of the factors that help successful companies develop collaboration as a new and important source of competitive advantage"* (MacCormack et al, 2008, pp.24).

This willingness to experiment and learn is, therefore, in itself a vital source of competitive advantage. In the authors' qualitative interviews, all respondents commented on the importance of being open to learning. The Strategic Development Manager (pharmaceuticals company) makes an insightful comment relating to this subject:

*"The joint-working process that we've gone through is a huge learning; to then be able to apply this to other projects; if we were just to write up the value of that... You can't put a financial value on it; it makes us better at collaborating"* (O1, R1).

The respondent emphasises the importance of capturing the lessons learned:

*"If we're serious about a working collaboration, we have to be able to go beyond the individual. Everyone needs to be able to do it. That's a challenge. You need to extract the learning you can take from the project, to generalise and use it in other situations. So much is intangible; you can't put it on a shelf and take it off, [but] you need to capture those intangibles"* (O1, R1).

The respondent suggests that, even if the collaboration with the NHS Trust doesn't lead to anything that generates revenue for the company, it may contribute to reputation and, at the very least, if lessons learned can be captured, and generalised to other situations, it can make them better at collaborating. The respondent's comments indicate a far-sighted attitude on the part of her organisation, as it appears to recognise that the value may be in the learning: the process of collaborative innovation is of interest as much as the outcome.

The Director of Global Customer Innovation (telecommunications company) also embraces the benefits of learning:

*"Innovation is all about exposing thinking, getting others to challenge it, and learning from others"* (O3, R3).

We can conclude from this that successful collaborative innovation requires, perhaps uncomfortably, a 'leap of faith'. Of course, it is reassuring if firms can present evidence and forecasts that suggest that a collaborative initiative will positively affect the bottom line, but organisations should be prepared to live with uncertainty regarding whether the collaboration

will be commercially viable, and be bold enough to experiment and learn. It is only by adopting a type of ‘who dares, wins’ attitude that companies will be able to reap the value and competitive advantage associated with learning to be good at collaborative innovation.

### 7.3.2. Different Approaches for Different Firms

The literature provides practitioners with some useful advice on how to approach this complex subject of collaborative innovation. Birkinshaw et al (2011), for example, stress the importance of diversity:

*“Innovation requires a degree of friction. Bringing in outsiders – new hires, experts, suppliers or customers – and mixing people across business units, functions and geographies helps spark new ideas”* (Birkinshaw et al, 2011, pp.43).

Fine (2010) suggests that different approaches may be required depending on the firm’s industry, and the industry’s stage in its life cycle:

*“To get innovation early in the life cycle, it’s survival of the fittest, fast-rate competition. You need suppliers who are all about speed and flexibility. To get innovation later in an industry’s life cycle, you need long-term, trust-based relationships with suppliers, where we’re all in this together, we’re going to work with you, we’re going to work together and we’re going to benefit collectively”* (Fine, 2010, pp.23).

Swink (2006) offers advice on the benefits of taking a structured versus unstructured approach to collaboration:

*“Unstructured collaboration promotes creativity, while structured collaboration promotes efficiency. [...] Unstructured collaboration is required early in new product and process design. Efficient, structured collaboration occurs as more design elements are defined”* (Swink, 2006, pp.40).

These are all relevant areas for firms to bear in mind when defining their approach to collaborative innovation. In addition, when a firm develops open innovation platforms (see section 7.1.2 for a discussion of open innovation), it is important to decide on the type of contributor with whom it is most appropriate for the firm to collaborate; for example, whether it is most appropriate for the firm’s contributors to be part of a competitive market, or part of a collaborative community (Boudreau & Lakhani, 2009). In section 7.2.3, we saw the types of motivating factors that drive people involved in competitive markets compared to those involved in collaborative communities. The table below summarises the key elements involved in collaboration with each of these models:

COMPETITIVE MARKETS	COLLABORATIVE COMMUNITIES
External innovators supply variants of mix and match, substitutable components.	External innovators' contributions range from mix and match offerings to co-production.
Formal governance – arm's length, rule-based, contractual orientation.	Informal governance with orientation toward socially-embedded, norm-based interactions.
External innovators primarily have competitive relationships with one another.	External innovators primarily have co-operative relationships – technology sharing etc.
Profit motive is central to driving innovation.	A range of extrinsic and intrinsic motivations may drive activities.
Value capture by platform owner is through direct contracting and licensing with external innovators.	Value capture by platform owner might occur through enhanced demand for platform driven by external innovation.

**Table 1: Collaboration with Competitive Markets versus Collaborative Communities: Key Elements (Source: Based on Boudreau & Lakhani, 2009)**

Boudreau & Lakhani (2009) assert that the dynamics of markets and communities are inherently different. Markets, for instance, tend to be governed by arm's length, contractually-oriented relationships, whereas communities typically consist of more informal interactions. The authors propose the following advice on whether a firm should take a 'competitive market' based approach or a 'collaborative communities' based approach to collaborative innovation: If the innovation problem involves cumulative knowledge, continually building on past advances, communities have inherent advantages, as they have knowledge-sharing and dissemination mechanisms designed into them. If a firm is seeking knowledge that needs to be aggregated by collaborative efforts, harnessing communities will be more appropriate (Boudreau & Lakhani, 2009).

If, on the other hand, the innovation problem is best solved by broad experimentation across a set of technical approaches or customer groups, then competitive markets have natural advantages, as they tap into a diversity of approaches from people competing against each other (Boudreau & Lakhani, 2009).

Boudreau and Lakhani (2009) propose three different collaborative innovation business models from which a firm can select the one that is most appropriate for its purposes. Each

model can be designed with either competitive markets or collaborative communities in mind:

**Integrator platform model:** this is where the company incorporates outside innovations and sells the final products to its customers. InnoCentive provides an example of a competitive market approach to this model, while Threadless.com provides an example of a collaborative community approach.

**Product platform model:** this is where external innovators build 'on top' of the platform, and they sell the resulting products to customers, e.g. competitive markets: cloud computing initiatives (Amazon and Google); collaborative communities: Linux.

**Two-sided platform model:** external innovators and customers are free to transact directly with one another as long as they also affiliate with the platform's owner, e.g. competitive markets: eBay; collaborative communities: SAP (developer network).

(Boudreau & Lakhani, 2009)

Lazzarotti et al's (2010) extensive study of open innovation models in Italy, presents four different models which are adopted in practice. The authors use two variables representing the degree of openness to distinguish these models:

- Partner variety: the number and type of partners with whom the company collaborates;
- Innovation phase variety: the number and type of phases of the innovation process open to external collaborators.

The four models identified are:

- Open innovators
- Closed innovators
- Integrated collaborators
- Specialised collaborators

Lazzarotti et al (2010) comment:

*"Specialized and integrated collaborators can be really considered as 'intermediate' models. [...] [They] are thus viable options for companies that do not have a highly aggressive approach to innovation and that do not want to invest too much for opening up the innovation process. As a consequence, these companies have limited expectations in terms of benefits from open innovation, but do not want to completely abandon the opportunity to access external sources of knowledge"* (Lazzarotti et al, 2010, pp.20).

It is suggested, therefore, that the more open the approach, the greater the potential benefits, but, nonetheless, firms may have perfectly valid reasons (for example, investment limitations) that prevent them from adopting a very open approach.

In Tapscott and Williams' (2005) research into innovation webs (I-webs), they also identify four different models of collaboration, as shown in the chart below:

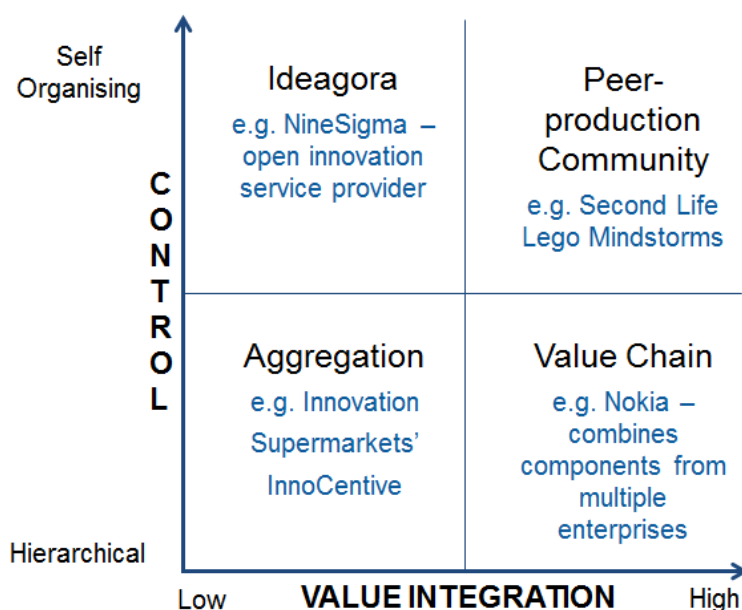


Figure 6: Innovation Webs: Four Models of Collaboration

(Source: Based on Tapscott & Williams, 2005)

The variables used by Tapscott and Williams (2005) in their analysis are the degree of value integration, and the degree of control exercised by the platform provider. The following provides a summary of each of the four types of collaboration:

**Ideagoras:** these are self-organising, open markets for innovation, where there is low value integration for the platform provider; they are innovation webs where companies trade in technology components and intellectual property (IP) rights. Companies with no competitive advantage in innovation can access leading edge technologies for much less than it would cost to develop them in-house. Any company that can't successfully market all the good ideas it creates can license them through this kind of innovation web. One industry's technologies can create unanticipated efficiencies in another industry. The licensor gains a virtually free revenue stream, and the licensee gains a welcome efficiency (Tapscott & Williams, 2005). NineSigma is an example of a company that uses this model. Their website defines them as, "*the most experienced open innovation service provider in the world. We engage companies across all industry sectors with the global innovation community and enable their organisations to leverage our open innovation network of external resources to solve challenges, integrate new knowledge and capabilities into their organisations*" (NineSigma website, September, 2011)

**Aggregation:** these are 'innovation supermarkets' where the platform provider has a high degree of control, but where the value integration (of the innovations) for their own business is low. A central aggregator collects ideas, innovations, human capital, patents, and other relevant resources, then offers them for sale with or without a fee. Innocentive provides a good example of this, as it aggregates human capital and makes it accessible to innovation-hungry companies:

*"The visionary match-making system links experts to unsolved R&D problems, allowing companies to tap the talents of a global, scientific community without having to employ*

*everybody full time. Firms anonymously post R&D problems (seekers), and successful problem solvers receive a cash prize” (Tapscott & Williams, 2005, pp.60).*

**Value chains:** this involves strong hierarchical control and high value integration by the platform provider. The context provider structures and directs an innovation web to produce a highly integrated value proposition, and the output meets a customer order or market opportunity:

*“The value chain I-web resembles the old vertically integrated model of innovation in its command-and-control orientation, except that a mix of open and proprietary collaboration is replacing the earlier emphasis on ownership and integration. In the current, complex marketplace, everything from a Nokia phone to an Airbus A380 combines components from multiple enterprises. Developing and bringing innovations to market now means working with a business web of companies with complementary skills and capabilities. Even ardent competitors can collaborate on certain areas of research, especially where results are hard to keep proprietary or where certain objectives are widely shared” (Tapscott & Williams, 2005, pp.62)*

The barriers to this type of I-web are that:

- Potential problems relating to ownership and exploitation of IP can make proprietary research consortia and joint ventures difficult.
- Participants may find it difficult to define clearly the boundaries of their intellectual contribution.

(Tapscott & Williams, 2005)

**Peer-production communities:** these are innovation webs that self-organise to create tightly integrated value propositions.

*“They strive for high value integration with limited or no hierarchical control. Participants design goods or services, create knowledge, or simply produce dynamic, shared experiences. Customers or users often play a prominent role in value creation, as contributors or product designers. E.g. Second Life – Linden Lab, the firm behind the concept, produces almost none of the game content (less than 1%). Instead, it makes powerful content-creation tools available for users to create characters, environments and actions. The company estimates it gets up to 6,000 hours of ‘free’ development effort from its users every day, roughly equivalent to the work of 100 engineers. Participants own all the IP in their creations and can buy and sell game assets to earn real money. This collaborative approach makes a big impact with fewer resources. It scales in ways that centrally designed systems cannot. It benefits from positive feedback loops that are difficult for competitors to reverse. It innovates more rapidly, and engages stakeholders in loyal communities because the players create the rules of the game, own their IP, and even volunteer to provide customer support. Linden Lab makes money by taxing the virtual real estate owned by game ‘residents’ and selling ‘newly issued land’ to new residents as the community of users grows” (Tapscott & Williams, 2005, pp.62).*

Lego Mindstorms is another excellent example of a peer-production community: within three weeks of their release, user groups had sprung up, and ‘tinkerers’ had reverse-engineered and reprogrammed the sensors, motors, and controller devices at the heart of the Mindstorms robotic systems – and sent their suggestions to Lego. Lego eventually created a website where customers can co-create products (Tapscott & Williams, 2005).



All of these different models give us a fascinating insight into the wide spectrum of collaborative innovation approaches available to companies. In reality, companies can blend the features of several different models to suit their purposes. In addition, different approaches will be appropriate for the same firm at different times, depending on the innovation challenge. Industry conditions and strategic business factors can also drive companies to adopt one model or another in different circumstances. In summary, a portfolio of approaches is often required.

The idea of losing control is often a factor that concerns organisations who are considering opening up their innovation process. However, there are many arguments in the literature designed to allay these fears:

*“Embracing openness and collaboration doesn’t mean companies must abandon control of their destiny. What it does mean is having well-developed and well-understood internal goals to guide external engagement strategies. Companies will need unique capabilities to work in collaborative environments: capabilities to develop relationships, sense important developments, add value, and turn nascent knowledge into compelling customer value propositions”* (Tapscott & Williams, 2005, pp.68).

*“Opening up’ the innovation process is necessarily about carefully designing a set of mechanisms to govern, shape, direct and even constrain external innovators; it is not about blindly giving up control and hoping for the best”* (Boudreau & Lakhani, 2009, pp.75).

Managing open innovation will, therefore, require and promote the development of a whole new set of skills and competencies which should then lead to value co-creation with external innovators.

Munsch (2009) adds a word of caution to a predominantly positive literature regarding the benefits of open innovation:

*“It is important to recognise that open models are not a panacea. Companies need to carefully evaluate the culture of their prospective partners to ensure that they can work together effectively over time. They need to be prepared to invest the time to ensure that any contractual agreements are well considered and that they are fair to all parties. Finally, they need to consider potential competitive implications and how likely it is that today’s partner will be tomorrow’s hated adversary”* (Munsch, 2009, pp.52).

In this section, we have seen a variety of suggestions and models demonstrating different approaches to collaborative innovation. We have also considered the different ‘markets’ - whether collaborative communities or competitive markets – that firms can tap into in order to engage with their stakeholders in the most effective way possible. The models presented represent differing degrees of openness, of control and of value integration on the part of the platform provider. It is clear that the right approach for any organisation will depend upon their particular needs and circumstances. Often, different approaches may be suitable at different times, and having a portfolio of approaches is usually advisable. Overall, it is wise for firms to demonstrate an openness to experiment with different approaches, and to re-evaluate the approaches selected on a regular basis. This is, of course, very much in keeping with the spirit of learning discussed in section 7.3.1.



### 7.3.3. What Does the Future Hold for Collaborative Innovation?

Looking to the future, Chesbrough (2011) has some predictions on potential developments in collaborative innovation. He believes that the management of innovation will become increasingly collaborative, and that the quality of the communities that surround a firm's activities will play a major part in determining that firm's success:

*“Opening up the innovation process will not stop with the accessing of external ideas and the sharing of internal ideas. Rather it will evolve into a more iterative, interactive process across the boundaries of companies, as communities of interested participants work together to create new innovations. [...] Companies will increasingly compete on the breadth, depth, and quality of their communities that surround their activities”* (Chesbrough, 2011, pp.2).

Chesbrough (2011) also believes that a firm's ability to carry out business model innovation will be key to its success. In fact, he believes that this will be every bit as important as technological innovation:

*“The business model is the predominant way a business creates value for its customers and captures some piece of that value for itself. It is generally accepted that a better business model can often beat a better technology. Yet companies that spend many millions of dollars on R&D seldom invest much money or time in exploring alternative business models to commercialize these discoveries”* (Chesbrough, 2011, pp.2).

Chesbrough (2011) also makes the point that, as companies increasingly search for growth in emerging markets, their existing business models will not be appropriate in these markets. This means that companies will need to learn to manage many, potentially conflicting business models at the same time, in different geographic areas.

In addition, much of the literature on managing innovation comes from the study of products and technologies, and yet the world's forty most advanced economies derive most of their GDP from services. Given the increasing importance of services, as opposed to tangible products, firms will need to become much better at understanding how collaborative innovation can work in services. Chesbrough (2011) believes that:

*“The winning formula for managing innovation in the next decade will be an open-services innovation approach”* (Chesbrough, 2011, pp.2).

In the authors' qualitative interviews, all respondents concurred that collaborative innovation was likely to increase in future, and that it would become more embedded in the very fabric of the way firms operate. The Innovation Program Manager interviewed (technology company) commented:

*“My vision is that open innovation will be sustainable... sustained; and it isn't just a contest that starts one month, lasts for three months and then finishes.[...] Open innovation should become an on-going continuous process, not simply a series of 'stop-start' contests. We should use technology to really engage with customers, partners and other stakeholders, and continually assess what we're seeing, responding in a creative way, doing things differently...”* (O4, R4).

The need to embed collaborative innovation in day-to-day processes is clear, while firms should be able to operate with flexible, dynamic business models that can be adapted as required.

## 8. Conclusion

In this study, we have examined the subject of collaborative innovation and how this can deliver value for stakeholders. The findings from the authors' literature review and qualitative interviews suggest that firms should address a variety of areas and follow a variety of steps to maximise the potential for value co-creation among stakeholders. These steps involve preparing your organisation; preparing your people and your partners' people; and defining and implementing the right approach. These suggested areas to address have been examined throughout section 7 of this report, and are summarised in the arrow diagram below:

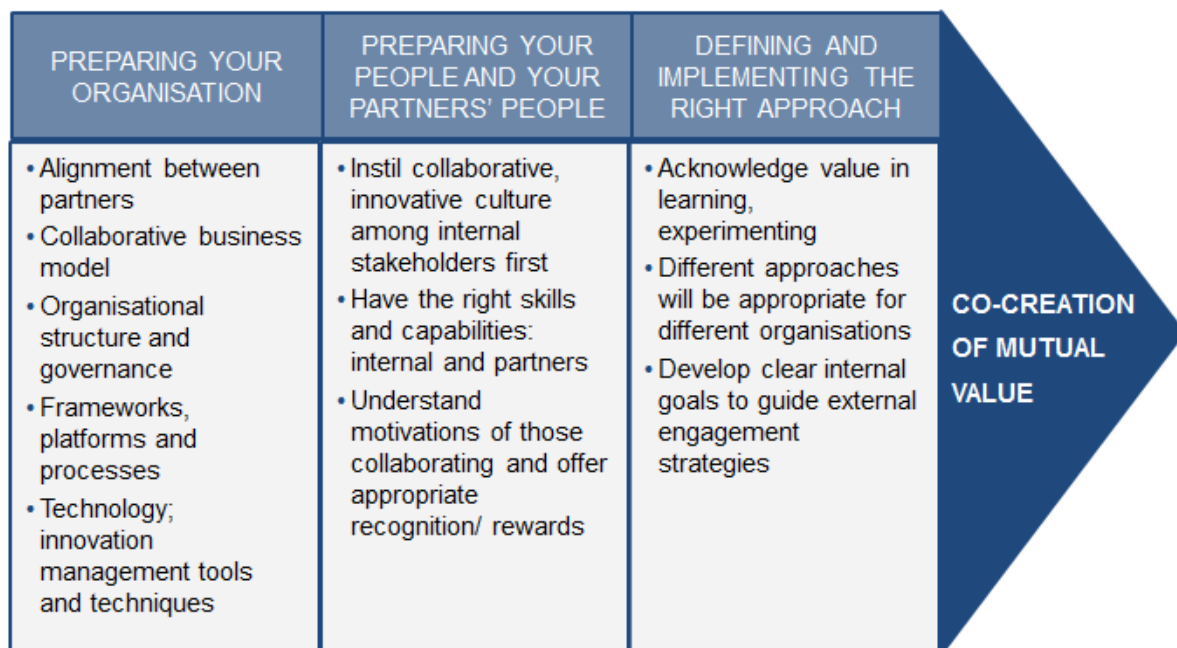


Figure 7: Collaborative Innovation: How to Create Value for Stakeholders?

This study suggests that innovating by collaborating with a variety of internal and external stakeholders is not a 'fad', but rather a process that will become increasingly ingrained in the ever-evolving business models of successful firms. The most successful firms will be those with the highest quality contributors and communities behind their innovation management processes. The authors propose that by following the steps outlined and giving due consideration to the issues raised above, firms will be equipped with a better understanding of how collaborative innovation and co-creation can deliver value for all stakeholders.

## 9. Opportunities for Further Research

This study has given a broad view of how collaborative innovation and co-creation can deliver value for stakeholders, identifying and examining all the relevant issues to be addressed. It would now be useful to 'deep dive' into some of the particular areas highlighted, to present a richer, more detailed exploration of selected areas.

It would also be interesting to carry out a detailed study of collaborative innovation from the perspective of a specific stakeholder group or groups.

Given the increasing importance of services businesses in many advanced economies, together with the fact that most research into collaborative innovation has been carried out with reference to the study of products and technologies, it would be useful to explore the subject of collaborative innovation specifically from a services perspective. It would be valuable to identify particular differences in the way collaborative innovation works for services, compared to tangible products.

## Appendix 1

### **Discussion Guide: Collaborative Innovation Research**

**Approximately 90 minutes**

#### **1. Purpose of research project**

To explore how collaborative innovation and co-creation with stakeholders can create value for all parties. To understand how organisations manage collaborations or flexible networks across internal and external boundaries, to stimulate innovation and create value for all parties.

#### **2. How much focus does your organisation place on innovation, and why?**

Do your collaborations with stakeholders tend to focus on technology/product innovations or service innovations, or both?

#### **3. Is collaboration with internal and external stakeholders important to your organisation, and if so, why?**

#### **4. Can you give me an example of collaborative innovation (with internal and external stakeholders) that has been particularly valuable for your organisation, and for your external stakeholders?**

- a. Why was this collaboration set up? What was the purpose of the collaboration? How and when was it established? Which stakeholders are involved?
- b. Describe the value that has been gained from this collaboration, especially in terms of innovation
- c. *How* do you believe this value has been created?
- d. Describe some of the challenges or barriers to collaborative innovation that you have come across on this project
- e. How do you believe collaborative innovation with stakeholders can be used to create even more mutual value in the future?
- f. In your opinion, what are the three things that are most important to ensure that collaborative innovation with stakeholders delivers mutual value?

Thank you for your time

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