



What's happening in innovation

What to expect in 2007

**OVO Innovation**

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## State of Innovation

The state of innovation at the end of 2006 presents a very mixed picture. While CEOs continue to talk about innovation and emphasize the importance of innovation, many firms are still very focused on quality, Six Sigma and outsourcing. Some firms have embarked on a long term strategy to bring innovation to all corners of their organization, and are finding great success. Bank of America won the OCI award from the Product Management and Development Association (PDMA) and Cargill has dramatically changed some of its businesses and products through its innovation initiative. Yet for every Cargill and Bank of America there many more firms that are just beginning to understand the importance of innovation.

As noted above, one of the challenges for innovation is the extreme focus on quarterly results and cost containment. Over the last decade, these two factors have become a driving force for corporate management teams. Wall Street awards firms that achieve consistently quarterly results and that work to contain costs, so most firms have right-sized, down-sized and outsourced everything that was not “core” to the business. Now that many firms are stripped to the core, the challenge is not cost containment, but top line growth and differentiation. Innovation can create organic growth, but it must be applied as a sustained business process, not in fits and starts.

Another challenge for innovation is separating the marketing hype from what’s really happening at the operation and process level. Many well known firms such as Yokohama, Sony, GE, IBM, Ford and Siemens have the word “innovation” in their tagline or prominent in their marketing. Often, this is where innovation begins and ends in these organizations. Executive teams understand that consumers and Wall Street will reward innovators and are beginning to position themselves as innovators, but peeling back layers of culture, process and tools indicates that many firms are only paying lip service to innovation and are gradually falling behind the firms that are actively embracing innovation.

Additionally, there’s a lot of complexity associated with innovation. Innovation comes in many shapes and sizes. Choosing the best approach for innovation – incremental or disruptive, open or closed, driven by corporate or driven by the business unit – can be very difficult and threaten the corporate culture. These and many other factors introduce a significant amount of uncertainty and make it even harder for firms to begin an innovation initiative, since one or two wrong moves may put their organization even further behind the competition.

Another challenge is that while we have good models for product innovation, there’s little definition and few models about services innovation at a time when our economy has shifted to a predominately services focus. Most organizations understand product innovation – that is, bringing a new physical product to market, but services innovation is lacking in product-centric firms, and even within services-oriented firms. Some early work is just being completed by Peer Insight, a firm focused on definitions, models and education about services innovation. Most

innovation has been focused on the consumer, so there is a significant amount of research and examples in the product and consumer space, but very little innovation is occurring in the B2B space. To date many firms in the B2B value chain have felt that they had little chance to innovate since they are often locked into a specific value chain or tied to a larger corporate organization which dictates products, pricing and services.

Innovation is a hot topic in the US, but increasingly outside the US as well. The EU is currently chaired by Finland, and has marked 2007 as a year of focus for innovation within the EU countries. Several governments in Europe are making significant investments in education and links to businesses to further innovation. China and India loom large as both of those economies seek to disrupt existing economies and value chains through innovative products and services.

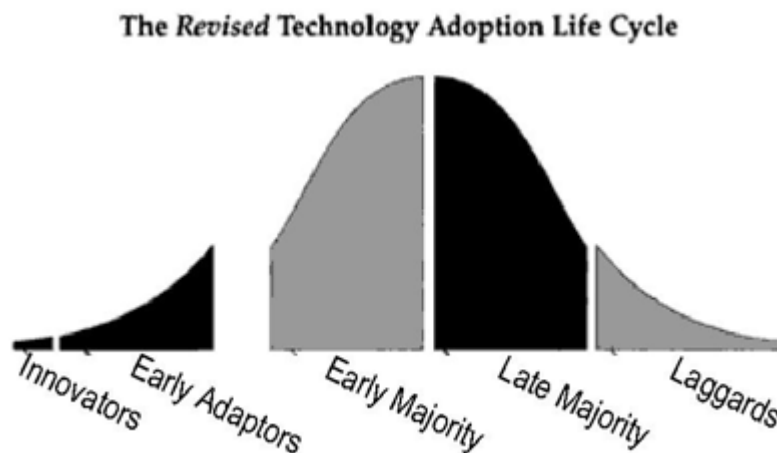
This paper provides a quick overview of the state of innovation at the end of 2006, and takes a look at the possibilities and opportunities for innovation in 2007. In this paper we look at a number of factors about innovation that are changing and will create even more change in 2007, including:

- The movement from focus on B2C to B2B
- The movement from product focused innovation to services innovation
- Increasing focus on “open” innovation
- Growth in processes, tools and methodologies for innovation.

## Crossing the Chasm as a metaphor for innovation adoption

Geoffrey Moore wrote *Crossing the Chasm* over 20 years ago, and used the “chasm” as a metaphor for the problems associated with introducing new technologies or products to the market. The Chasm was the divide between the early adopters and the early majority, which represent a significant portion of the potential customer base. Moore argued that over time, adoption of a technology reflected a bell curve, and any technology could be plotted as to its position on that curve.

We can use the adoption curve metaphor to evaluate the adoption of innovation as a business concept across industries and businesses.



Outside of Consumer Packaged Goods, most firms are still in the early adoption stage for innovation, and most of that work is not corporate wide but implementations of various philosophies in business units or product teams. Even industry leaders like Bank of America, Proctor&Gamble and Cargill have deployed their innovation initiatives in some, but by no means all, of their business units. To date the adoption of innovation is “deep” – present and active in some business units, but not “wide” – that is, organized as a corporate initiative and consistently implemented across the business.

Moore’s philosophy about the “chasm” or the reason technology firms failed to move from selling to early adopters to the majority dealt with “whole product” issues. In other words, the early and late majority buy solutions that are larger than the product or service. Majority buyers want examples, case studies, documentation, trained experts and are less willing to move ahead without these features in place. Given that the state of innovation and even its definitions are so

fractured, the majority adopters in many businesses are acting just like consumers for technology products – they are waiting for the “whole product” to emerge.

As you’d expect, there are very few “whole products” on the market for innovation. Most of the consultants and authors specialize around certain attributes or features of innovation, but don’t provide a complete solution. Clayton Christensen, probably the most noted author, deals primarily with strategy and alignment, but not with process or tools. Robert Cooper, who developed the STAGE-GATE® new product development methodology, does not focus on software tools. Many innovation consultants understand ideation but not product design or Ethnography and Voice of the Customer but not product launch. In short, there is no “whole product” solution for innovation yet, and won’t be for quite some time. A strategy to wait for that solution is very risky, as in this instance it is probably better to get started without the entire solution than to wait for one to emerge.

In 2007 we expect to see innovation “cross the chasm” as a business initiative, which will occur as whole product solutions for innovation – including consulting, training and software applications become available.

## **Still at the starting line**

While innovation is an interesting topic of conversation in the board room, in reality few firms are walking the innovation talk. There’s a distinction to be made between the management discussion about the importance of innovation and the actual innovation work being done within the company. Many Fortune 500 firms are just beginning to organize their innovation efforts, so it’s important to distinguish action from organization. Many firms are talking about innovation and taking some disjointed actions, but few are truly organized to innovate.

What gets in the way for these firms that are still at the starting line? Organizational culture, the nature and ferocity of competition, and strategic clarity. Culture, Competition and Clarity – let’s examine these three hurdles in more detail.

Probably the best rule of thumb to determine whether or not a firm is committing resources for innovation is to examine its competitive environment. Generally speaking, the more competitive and commoditized the market, the more likely you are to find innovation. In highly competitive and commoditized markets like packaging and agricultural products, there is a significant amount of innovation, while in less competitive markets there is significantly less innovation. In fact, innovation seems to have the most focus in the least likely places. While Apple is held up as an innovator for the iPod, there’s been exceptionally little innovation in the world of personal computers for quite some time, even as Dell is held up as an innovation leader. Firms that own a significant market share or don’t face aggressive competition are much less likely to innovate, seeking instead to milk the existing marketing dominance. Just as IBM missed the mini-computer market and DEC missed the PC market, many market leaders are ripe for disruption,

and are too inwardly focused. Competition drives the need for innovation. The lack of competition slows and inhibits innovation.

Some firms are still on the starting line because their culture does not welcome new ideas or the change necessary to become more innovative. Too often existing culture and bureaucracy get in the way. We're aware of firms that have studied the concept of innovation and attempted small projects for well over 18 months. The number of approvals and signoffs necessary to begin an innovation initiative has left some firms far behind their competitors. Fear of change and resistance to change create a significant barrier as well. Innovation can often require a change to an existing process which will impact someone's power structure. Bureaucracy, fear of change and fear of the "new" inhibit innovation, as they inhibit any new initiative.

Finally, strategic clarity is a stumbling block to many innovation teams. In many firms the management team has not set clear objectives and investment strategies about innovation, and sends mixed messages. People are encouraged to innovate, but there's no linkage between the innovation and the strategic direction of the company. Compensation models are still too closely tied to operational metrics and quarterly results, so little time or effort is expended in innovation. For innovation to succeed, the management team of the organization must be clearly behind the effort and help the operational teams align their innovation goals to strategic corporate goals.

## **Business to Business Innovation**

Much of the work that's highlighted in the media about innovation has been for products that are sold to end consumers. Commentators use the same products as examples for innovation – Swiffer, iPod, Tide detergent. Almost to a fault these examples are physical products delivered to end consumers.

Firms in the business to consumer (B2C) sector have distinct advantages in some forms of innovation, since they 1) govern the end product or service 2) actually deliver it to the customer and receive feedback from the customer and 3) own the brand. Firms that manufacture and sell products or deliver services directly to consumers have a much closer relationship with the customer, should have a better understanding of the customers' wants and needs and are structured to create solutions to solve those problems. Thus, consumer packaged goods firms are constantly innovating, since there is a high expectation from the consumer for product extensions and completely new products, and a lot of competition in the space. Products like detergents are often held up as examples of incremental innovation since they are constantly updated with new ingredients or offerings.

What's striking after several years of focus on innovation is the lack of focus on innovation in the business to business (B2B) community and in the services sector of the economy. Firms in the Business to Business sector seem to have a much more constrained innovation opportunity than those in the B2C sector, for at least three important reasons. First, most B2B companies

don't interact with the end consumer directly; they sell to a larger firm or are part of the supply chain or distribution network. This means they rarely receive direct customer feedback about their products or components. Second, most B2B firms work with a larger, demanding customer which values cost control and quality, not innovation, so there's less room and opportunity for innovation where their primary customer is concerned. Third, most B2B companies have no control over the final product. Many smaller firms that build components for larger firms often feel they have no ability to innovate around the products that they offer, since so much of the definition of the product is driven by their customer, the aggregator or assembler who sells to the end consumer.

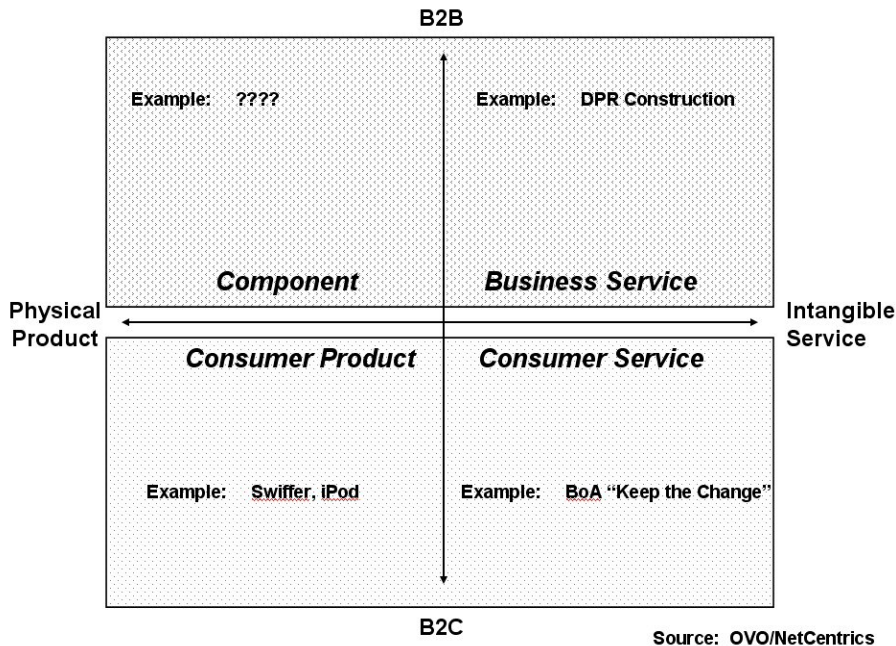
There's a risk in becoming complacent as a participant in a B2B supply chain, however. Companies upstream and downstream will constantly squeeze the firms in the middle for more quality and more cost improvement, all the while seeking alternative solutions and substitutes. If B2B firms do not innovate, their position in the market will be upended by new entrants who offer similar solutions at different price points or products that dramatically change the supply chain.

Most research on innovation has focused on the sectors of the market that sell directly to consumers, so firms like the consumer packaged goods companies (P&G), consumer electronics (Apple) and others have garnered more research and attention. There is a significant lack of research into B2B innovation. Most often, innovation in a B2B space takes one of several forms:

- Leveraging an existing skill set for other customers or industries. Many firms in the supply chain develop deep competencies solving problems for their immediate customer downstream. Often these firms can innovate around their competency and develop new products or services and offer those to firms in other industries. A good example is a small firm in Italy which created a method to write in edible ink on cakes, and sold the technology to Proctor&Gamble so they could write messages on Pringles.
- Innovate around a "whole product". Rather than simply build a product or deliver a service, many B2B firms can provide a "solution" to a problem that their downstream customer has.
- Convert a "product" to a "service". A good example of this approach is York, an HVAC company. York discovered that many firms found the purchase and maintenance of HVAC equipment difficult, confusing and expensive. What the clients really wanted was chilled air. York created a service which packaged its equipment, maintenance and service and offered the customer units of chilled air, rather than selling equipment, services and maintenance.

Innovation in the B2B space is ripe for advancement, since there's been very little change and many firms in the supply chain have been hampered and constrained by the continual demands for cost cutting. There is a significant amount of knowledge capital in any B2B supply chain or distribution chain that has been untapped, and companies that leverage their supply chain for more ideas and innovation will find ready and willing participants who seek to expand beyond their existing roles and markets.





Traditionally we've thought about product innovation or service innovation. However, most of the focus and discussion has been on products and services that are delivered direct to consumers. Looking at the product/service and B2B/B2C spectrums we can see a lot of "white space" in the upper quadrants where there's been little focus on B2B innovation.

We'll examine services innovation in the next section.

## Innovation beyond the product

Another interesting phenomenon in innovation today is the predominant thinking that innovation is a new product. While our economy has shifted to a services based economy, much of our innovation focus is still on product innovation. Almost every example used when experts and consultants talk about innovation is a physical product example, yet the majority of the business we conduct is based on services. There is a tremendous opportunity for firms to innovate around their service offerings. Innovation around business models is clearly another possibility.

To date, there has been very little research or investigation of service innovation or business model innovation. Dell is usually held up as an example of a firm changed an industry by changing a business model. Their key insight was to reconfigure the value chain and distribution of computers, moving from a push inventory model to a pull demand model. NetFlix is probably a good example of service innovation. NetFlix is not dramatically different in many aspects from the local movie rental business, except that NetFlix delivers the movie to your home and you can send it back through the mail. NetFlix recognized that the service people wanted was “movie delivery” and made that service available.

To date only Peer Insight, a consulting and research firm in Alexandria, Virginia has done much research into service model innovation. Peer Insight has been studying service model innovation for about 3 years and is sharing its findings with its consortia partners. However there is still a tremendous amount of work to be done in this sector of innovation, and many firms in the healthcare, hospitality, banking, retail and other service oriented establishments are just becoming aware of the need for innovation. Unlike the product arena, where new product development approaches and processes are documented and reasonably well-understood, new service innovations and service development models are just beginning to be defined. There is a significant amount of “white space” in services innovation, and still a lot of definition required.

There are some similarities and some key differences between product and service innovation. From the perspective of idea generation and evaluation, ideas which represent new products and ideas which represent new services look very similar. The divergence happens as a firm begins to prototype its new ideas. It is often fairly simple to prototype a physical product, but much more difficult to prototype or simulate a new service. Using a physical prototype, a consumer can interact with the representation of a new product and provide feedback. In a services business, it is much harder to create a prototype. Often the best that a services manager can hope for is to create a vignette or a simulation of the concept, to allow the consumer to “experience” the potential service.

Another factor distinguishing service innovation from product innovation is that a service has a significantly different customer experience than a product, in terms of purchasing experience and usage experience. Look at several different phases of the customer experience. When a customer purchases a physical product, that purchase is a transaction that results in the customer

carrying away an item that he or she uses infrequently. When a customer acquires a service, no physical product is provided and the service may be delivered by one or more people over an extended period of time. This means that there are many points of contact for a service with the customer, and all of those points of contact can delight or anger the customer. Defining and packaging an innovative service is difficult but can provide extraordinary returns, as we've seen from Disney, Ritz Carlton and other firms that have focused on differentiated services.

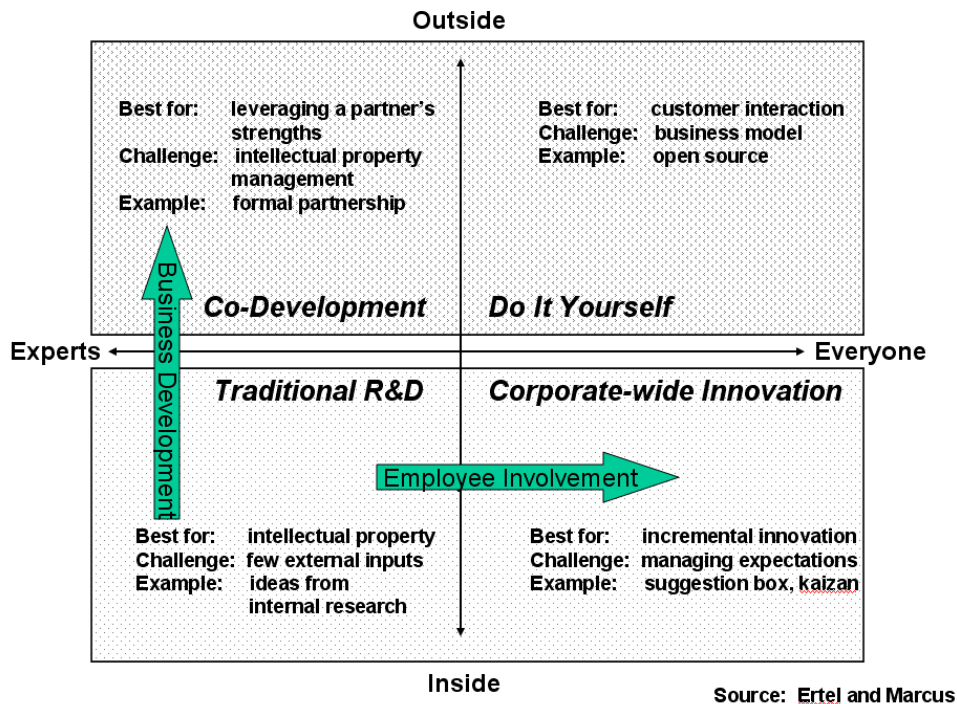
In 2007 we expect to see a dramatic increase in the focus on service innovation, in product centric companies as well as firms that are predominately services oriented. There are good models and methods defined for product innovation, and while there's room for improvement in product innovation, the field is wide open for improved service innovation.

## **“Open” innovation**

There has been a significant discussion around the importance of “open” innovation since the publication of Henry Chesbrough's book on the subject. Traditional innovation meant creating ideas and fostering the ideas internally, and creating those products internally as well. More and more, firms are recognizing that while they may possess great minds, there are simply more ideas outside the organization that must be evaluated. Thus the idea of “open” innovation has become a significant topic for discussion. P&G has established a metric that 50% of its revenue will come from products that were suggested by individuals or companies outside of P&G.

The problem with most “open innovation” is not the identification of ideas but the establishment of the intellectual property. P&G for example has hundreds of ideas submitted to its website every week, but the challenge is not in collecting the ideas and evaluating them, but in establishing prior art and ownership. While P&G wants to collect ideas, it does not want to violate existing intellectual property, so the legal review of ideas submitted becomes a major bottleneck.

A recent addition to the concept of Open Innovation is the 4 quadrant model proposed by Chris Ertel from Global Business Network and Matt Marcus at Gucci. This model takes the Open Innovation concept further by considering several different approaches to “Open” versus “Closed” innovation. Here's a chart of their approach.



Note that OVO has modified this chart from Ertel and Marcus's original. We have added the arrows and changed some of the names and text.

The X-axis is a spectrum which represents where ideas come from – experts on the left, everyone on the planet on the right. The Y-axis is a spectrum that represents where the ideas are worked – outside the firm at the top, inside the firm at the bottom. The four quadrants represent, from the bottom left (using terminology created by Ertel and Marcus):

- “Star Chamber” – traditional R&D drives idea generation. Ideas are generated, managed and worked internally.
- “Network Innovation” – working with close external partners who are experts to innovative new products or services. A traditional partner/alliance model.
- “Do It Yourself” – innovation by a user group or community influenced but not directed by the organization. You Tube or open source are two examples.
- “Thousand Flowers” – innovation driven by idea submission by anyone within the company. A traditional kaizen approach, involving the entire staff of the business in innovation.

Today the vast majority of innovation is taking place on the left hand side, but we expect that in the future much more innovation will take place on the right hand side as techniques and communities form. The real challenge will be to determine how to make money in the DIY sector, and how to pick the best ideas from the Thousand Flowers sector.

Over time we also expect to see a shift in the emphasis and importance of these four quadrants. Increasingly firms will seek to manage and control ideas that are spawned in the DIY sector, and will provide more resources to the Thousand Flowers and Networked approaches as internal innovation becomes an equal partner to these other approaches.

## Processes, methodologies and tools

Innovation has traditionally been the responsibility of a small group of people within the firm, located in R&D or business development. Once this team had a new idea, it shaped and formed the idea until it was ready to be handed over to the product or service development teams. Processes and methodologies were less important because 1) there weren't many ideas 2) most ideas were of the same "type" and 3) only a few people were involved.

As innovation opens up to the entire organization and to participants outside the organization, more ideas are generated and they represent different types – product innovations, service innovations, new business models and so forth. As the number and type of ideas increase, so does the number of participants in the innovation effort. What's lacking today in many businesses is a defined process or methodology for converting all those ideas into new products or services. The old model of a single idea champion moving an idea through the organization is just outdated.

Compare and contrast the idea process with a purchasing process. No firm would expect that one manager would write a purchase order, walk it through the approval process, mail it to the vendor, double check the receiving documents and accept or reject the invoice. While those steps may define the purchasing process, other people and other systems support and enable the process. Why would we expect anything less from an important innovation process?

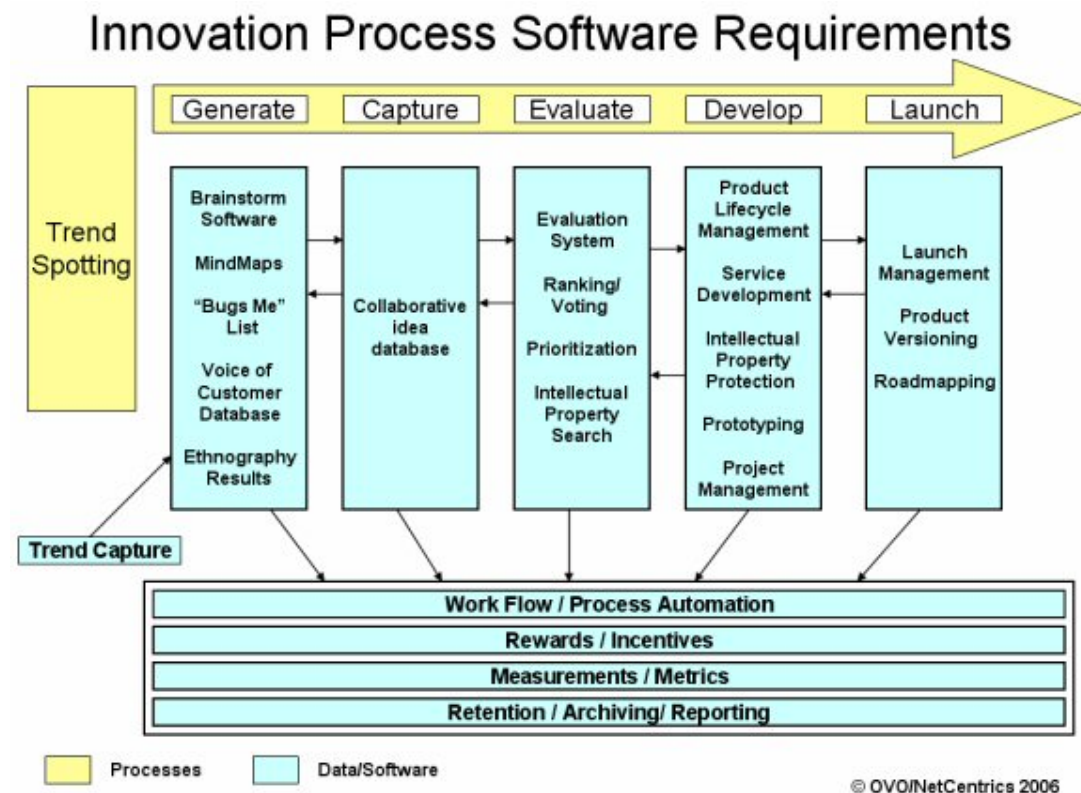
Many firms have begun to evaluate innovation processes, only to find that few exist. Most of the well-documented processes being applied to innovation come from the world of product development. Probably the best known is STAGE-GATE®, which was proposed as a new product development process over a decade ago. STAGE-GATE does have a number of factors that make it attractive – most important: it exists, it is documented and there are people who understand it. However, STAGE-GATE is not a perfect match for innovation, in that it is fairly complex, hard to implement and meant primarily for product innovation, not service or business model innovation. We expect new methodologies and process definition work will continue to increase in the coming years.

Likewise, there are few software applications to manage the increasing volume of data created by ideation and idea management. Traditional suggestion boxes have given way to small idea databases scattered throughout the organization, with little visibility or collaboration. There are an increasing number of software applications available on the market, but to date most of them are "point" solutions – capable of solving one challenge within the innovation process –



generating ideas or capturing ideas. Over time we'll see the emergence of an integrated application suite which can support an idea management process just as purchasing has an entire purchasing process or sales teams have a CRM application.

OVO has defined a “framework” to support a sustainable innovation process. This process and data/systems requirements define the information necessary to support a team that is generating, managing and launching new ideas as products or services. The graphic below represents that framework, and is a work in process. We believe over the next year or two more organizations will seek integrated software applications that will support an end to end innovation process. The process definition is important if organizations are to be successful moving ideas through the business from initial concept to final product. The software, data and databases are necessary as the number and type of ideas increase and more people participate in the process.





## Looking ahead

Predicting the future is never easy, but here's a quick look at what's likely to happen in innovation over the next 12 months, given key leading indicators and the state of the market today.

### **Management:**

1. The financial markets will continue to put a premium value on firms that can innovate and successfully introduce new products.
2. The financial markets will continue to demand increased organic growth now that most firms have outsourced and downsized their operations

**Conclusion:** Senior executives will be rewarded for successful innovation and try to demonstrate that their organization is becoming more innovative.

**Risk:** Too much talk and not enough action. At some point the employees will begin to suspect that the talk about innovation is merely for Wall Street, and innovation will be considered a passing management fad.

**Likely Outcome:** Mid-level managers refuse to wait for corporate initiatives and begin to identify processes and tools and implement innovation initiatives in specific product lines and within a line of business. Successful managers are identified and promoted and innovation takes on a more enterprise-wide focus by the end of 2007.

### **Regions/Countries:**

1. European countries, especially Scandinavian countries like Sweden and Finland, continue to pour a significant amount of money into innovation
2. China pours a tremendous amount of investment directed at making the country an innovation powerhouse.
3. India focuses on services innovation and continues to outsource information worker jobs from the US
4. Local and national initiatives in the US begin to sponsor innovation initiatives aimed at spurring innovation as a key competitive advantage and differentiator.

**Conclusion:** Federal, state and local governments identify innovation as a key initiative and incorporate innovation as driver for economic growth. Beyond local sponsorship and tighter integration across organizations, it is difficult for firms in the US to gain as much as their overseas counterparts from government interaction.



Risk: Innovation becomes over-hyped – too much talk and not enough results.

Likely Outcome: China, India and Europe are already investing in innovation. Within the US, Rhode Island and several other states have created innovation initiatives. The greater Chicago metropolitan area has launched an initiative to define Chicago as a leader in innovation. Governments, non-profits and other organizations identify the importance of innovation in business, education and government. China increasingly positions itself as an end to end provider of innovative products, while India positions itself to innovate and disrupt the knowledge workers in the US and Western Europe.

### **“Inside Out vs. Outside In”**

1. Innovators recognize the vast number of creative minds outside their business units and seek to increase idea generation externally.
2. Increasingly, firms move from the “Star Chamber” innovation approach to the “DIY” innovation approach and attempt to determine the revenue generation and business model.
3. Laggards skip past early innovation models and establish state of the art innovation processes and partnerships to compete with long-standing industry leaders.

Conclusion: Business development and strategic alliances become more important to innovation than research and development. Legal teams and intellectual property lawyers must find new, more effective ways to evaluate ideas and define intellectual property.

Risk: Partnering processes impact timelines for implementing new ideas, extending the new product development and introduction lifecycle. Business models are not defined to incorporate broader involvement in idea generation and new product creation by outside entities.

Likely outcome: More experiments and pilots around externally-focused innovation. “Innovation Communities” spring up in regions with a combination of large companies, entrepreneurs and universities.

### **Software/Processes**

1. As the number of participants grows, and the number of ideas grows, collaborative databases become much more important to organize and share innovative ideas.
2. Sustainable innovation requires defined innovation processes, so corporate teams begin to define innovation processes and cross-functional participation.

Conclusion: Defined processes and software become more important to the “front” end of innovation, and provide a more seamless link to the “back end” – product development and market launch.

Risk: Firms implement “idea management” systems but do not create end to end processes to support innovation.

Likely outcome: Early adopters of software struggle to get value from systems until they implement innovation processes and change employee involvement.

**Service innovation focus**

1. Product oriented firms recognize the benefits of improving their services around the products and begin a service innovation focus.
2. Services oriented firms recognize the importance of innovating and constantly improving their services and begin a more formal innovation process.

Conclusion: While product innovation remains a key focus, much more attention turns to services innovation in 2007. Services account for over 70% of the GDP of the United States, so clearly there are more opportunities for services innovation than product innovation, yet services innovation lags product innovation in terms of investment and focus.

Risk: Too much emphasis is placed on improving services with too little input from customers.

Likely outcome: A number of successes and failures as services firms start to innovate. A migration of talent from noted service innovators (Ritz Carlton, Walt Disney) to product-centric firms.



## **About OVO**

OVO is an innovation consulting and software development firm. We work with our clients to define and implement an “end to end” business process for innovation. Additionally we help our clients generate, capture and manage ideas more effectively and collaboratively to fuel organic revenue growth and profits.

OVO provides consulting services related to:

- ideation,
- idea process definition,
- implementation,
- cultural change,
- innovation measures and metrics

and builds software to support innovation processes. For more information on OVO, see our website at [www.ovoinnovation.com](http://www.ovoinnovation.com).

## **About Jeffrey Phillips**

Jeffrey Phillips is a Vice President of Marketing at OVO and works with OVO clients to improve innovation processes and define software applications to improve innovation. Jeffrey is a thought leader on innovation and publishes the Innovate on Purpose weblog (<http://innovateonpurpose.blogspot.com>) and, with Dean Hering, wrote the Innovate on Purpose™ article recently published in the Harvard Management Update.