



Building a Cross-Functional Innovation Department

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1. Introduction	- 2 -
2. Major Participants in Cross-Functional Innovation.....	- 4 -
R&D	- 4 -
Marketing	- 5 -
Business Development.....	- 5 -
3. Innovation’s Roots in Collaborative Ideation.....	- 7 -
4. Metamorphosis into a Cross-Functional Innovation Department.....	- 8 -
“CEO ex machina”	- 8 -
Organic development	- 10 -
5. Concluding Thoughts	- 11 -

Building a Cross-Functional Innovation Department

1. Introduction

In 2001, I-Nova Software was founded to provide “innovation management” solutions – both software and services – to large companies. Over the years, we have observed an interesting pattern emerging among our clients: The migration of “innovation” from a metric within specific departments, to the creation of a dedicated Innovation function at the corporate level.

During our first few years of existence, we discovered that “innovation” was still a very fuzzy concept within the corporate world. It had a mythical status – a buzzword without clear process definitions. In fact, each department had its own definition for “innovation” – engineers saw it as “invention”; marketers saw it as “customer needs detection”; production managers saw it as “continuous improvement”; and business managers saw it as “collaboration”. All of these beliefs, of course, were correct – but also incomplete. Innovation certainly includes all of these threads, but it is bigger than any of them alone. It is their sum that produces true Innovation Management.

Today, we are seeing the early indication that the most advanced companies have begun to pull these threads together into a dedicated, cross-functional Innovation Department which exists at the corporate level. This department is led by an Innovation Director who generally reports to senior executives ranging from senior business-unit managers to C-level executives including the COO and CEO. The Innovation Director manages a function which coordinates innovation activity across the company. It assists with the “invention” aspect of innovation from R&D; with “customer-needs detection” from Marketing and Sales; and with continuous improvement, cost-cutting, and collaboration across the entire enterprise. Often, it also assists with corporate strategic planning, venturing/incubation/joint ventures, and M&A due diligence.

In this way, the Innovation Department is now coordinating and leveraging intellectual capital analogous to how the Finance department has long coordinated and leveraged financial capital. There is an accounting of the company’s innovation potential, and also a strategic planning of how to use those resources. Innovation resources then come into play in every aspect of the business – just like money. Today’s most advanced Innovation Departments coordinate the planning and allocation of innovation resources, and synergize this planning with long-term strategic planning for new business models and the

future of the industry. Thus, every department within the company has its own unique innovation agenda – just like every department has its own budget coordinated by the Finance department.

In these activities, the “common currency” of the Innovation Department is ideas – the building blocks of future innovations. Before an innovation becomes reality, it starts as an idea in the mind of the people building it. Over time, these innovators will develop their ideas into a unified concept, and eventually – if successful – they will realize the concept design in the real world as a bona fide innovation. Thus, very importantly, innovation is the product of a collaborative effort – whereby people must work together across disciplines and organizational boundaries to combine and re-form their ideas until the result is greater than the individual starting points.

2. Major Participants in Cross-Functional Innovation

Several organizations within the enterprise already build and/or treat ideas for their own purposes – and thus form the roots from which the cross-functional Innovation Department will emerge.

R&D

In many ways, ideas form the cornerstone of the work in R&D. Research in itself is about developing ideas from theory; development is about engineering those ideas into workable technologies. Yet nonetheless, R&D in the past has been constrained by strict industrial processes that have often limited its ability to turn ideas into anything more than point inventions – rather than game-changing innovations. Fortunately, recent cross-cutting capabilities for sharing and collectively harvesting ideas have begun to expand R&D's capacity for producing native innovations.

First, researchers are now able to use web software to build common knowledge bases which cut across scientific disciplines and specific fields. By tracking research plans and lab notes in a common repository, researchers have begun to gain a comprehensive look at the activities and expertise of their colleagues. As they do, the ability to arrive at the moment of serendipity from which innovation stems becomes greatly enhanced.

In addition, Web software has given different groups of researchers and engineers the ability to have a richer dialogue together. Historically, teams of “pure” researchers were often very disconnected from both platform engineers and product engineers. They had very different output goals, and often used markedly different languages and processes to accomplish their work. Yet in recent years, large research organizations have begun to learn that many of the skills and underlying knowledge of these R&D groups are similar – and can be shared and collaborated on productively. Thus, a technique developed by an engineer who develops and maintains the platform environment for manufacturing a farm tractor may be able to inspire a researcher who is working on the future applications of fluid dynamics (and vice-versa).

Marketing

There was a time when Marketing was confined primarily to “push” mode – trying to find creative ways to convince people to buy a product or service. These days are now behind us; today’s cutting-edge Marketers are just as concerned with learning what it is they should be pushing in the future. Thus, Marketing has become a two-way conversation in which the marketer tries to listen to the so-called “Voice of Customer” as much as they broadcast to consumers.

There are now many ways in which Marketing assembles raw data that can later be turned into ideas for future products and services. For a number of years, the “Voice of Customer” trend has spearheaded an effort to collect survey data from groups of users that gives feedback about a planned product design – which then can be used by engineering to improve the design before the final product launch. More recently, Marketing’s activity has only grown further. It is now common practice to go beyond focus groups and customer surveys and into the field more deeply – even to the point of broad ethnographic studies conducted by teams of anthropologists. Marketing can then use these studies to chart the entire spectrum of customer needs that need a new or better product or service.

The most advanced companies can leverage these findings to their utmost by creating a comprehensive customer-needs research database that contains all the ideas developed about what the customer needs and wants from future products and services. If shared with R&D in the correct way, this can lead to productive cross-fertilization of efforts across Marketing and R&D. The engineers can use Marketing’s insights to decide which types of research plans and technologies to develop; and the Marketers can learn better which customers they should study in the future – for their next round of market-facing ideas.

Business Development

In some companies, Business Development is a dedicated function; in others, it is more of a composite of specific individuals and units across multiple business groups. In any case, Business Development has gained currency in recent years as a major contributor to commercial success of an enterprise. In a different way from R&D and Marketing – but no less in importance – the Business Development group needs ideas in order to thrive.

The Business Development group is involved in a number of activities in the commercial ecosystem – ranging from sales development to partnership development to M&A. Each of these activities involve the coordination of a broad set of ideas about the company’s business interests. For instance, in assessing potential partnerships, business

development professionals must apply the ideas developed in both Marketing and R&D. A partner or acquisition target may raise initial interest primarily because it can provide a piece of technology that is not well-developed in-house. But the addition of the technology must be able to contribute to the assembly of products that can serve underserved or latent customer needs – and therefore Marketing’s ideas are also important.

In recent years, business development professionals have also shown markedly increased activity of in- and out-licensing. These licensing activities are more focused and transactional than more committed activities such as partnering and M&A. For out-licensing, the company takes a piece of technology developed in-house and sells it to another player in the value chain – a company which is better positioned to commercialize the technology as a product or service for the end customer. For in-licensing, the company seeks to fill specific gaps in its development capabilities by licensing particular technologies or knowledge sets from external companies which choose not to commercialize the technology on their own. In both cases, Business Development must assess licensing potential starting with a firm understanding of the ideas and expertises which exist within both R&D and Marketing.

3. Innovation's Roots in Collaborative Ideation

As each of these groups increases its activity in creating, sharing, and tracking ideas over time, their need to connect with the other groups increases, and productive synergies arise. I-Nova's business is to provide the cross-functional ideation and collaboration spaces that allow R&D, Marketing, and Business Development to share their ideas; develop them collaboratively; and benefit from the insights and cross-fertilization which ensues.

The first type of ideas that can be shared in an ideation system are simple and broad. For example, a front-line sales employee might have had a number of discussions with clients in which he/she sees a constant problem with one part of the standard corporate sales pitch. He/she submits the idea into the company's ideation system, and the ensuing discussion reveals that there is a problem in the way that the company goes to market. After a brief discussion at the management board meeting, the problem is rectified and the sales pipeline improves markedly in the next quarter.

The second type of ideas are fully-fleshed and relatively sophisticated. These exist at the level of project proposal or business model idea. For instance, perhaps an engineer has been working on a certain type of electrical technology to be applied in switching stations for nuclear power plants. However, after a brief discussion with a colleague, he/she realizes that the technology has a much even better, more direct, application in the design of an efficient power-distribution system for wind farms. Together, the two engineers propose a new project to develop this electrical system applied to wind technology. Business and R&D managers review the idea, and decide to proceed by funding the project – incubating an idea which could lead to profitable new market development.

The third type of ideas are complex and inherently cross-disciplinary. These are ideas about how markets and technologies are fundamentally changing – strategic ideas that lead to new industry paradigms, new business models, etc. Normally these are not submitted by individuals or arrived at by simple serendipity. They are simply too broad for any one person to “know it all.” Instead, the best practice involves task forces and advanced “futurist” committees which build scenarios of the future. This work happens in iterative research projects punctuated by collective brainstorming sessions. The members of the project committee are generally handpicked from across the company for their fit in this “committee of futurists.”

4. Metamorphosis into a Cross-Functional Innovation Department

The major consequence of a successful implementation of an ideation system is the emergence of a true corporate-level Innovation Department which manages and coordinates the ideation activity. Each of the examples above involves coordination across multiple departments: Sales and Marketing in the first case; different groups within engineering and then Marketing and Business Development in the second case; and people from all across the company in the third case. This degree of interoperation defies typical business process organized by vertical functions, and requires a horizontal and cross-functional process structure supported by a standard web-based information system.

Regardless of where it starts, there is a critical point at which burgeoning ideation efforts must cross over from their origins and become a cross-functional corporate unit – i.e., the Innovation Department. Importantly, the exact ways in which the cross-over can happen are multiple and varied. The actual migration path depends highly on a given company's leadership culture, organizational structure, and business timing. Usually the cross-over involves some sort of crucial precipitation event. In any case, the cross-over into a cross-functional coordination group is critical to sustain the benefits of the ideation described in the examples in the previous section.

“CEO ex machina”

Perhaps the most common precipitation event is a directive issued from the top ranks of the company, most typically the CEO him/herself. The story has been repeated countless times already over the past decade: A forward-thinking CEO has read the latest business books, and liaised with leading business academics. He or she realizes that building a cross-functional Innovation Department will be crucial to his/her company's ability to sustain growth in the long term. As a result, he or she decides to mandate the creation of this department from the top-down.

When this happens, the CEO generally appoints a trusted lieutenant as the new Innovation Director. Sometimes this person is given a small staff and modest budget; sometimes not. Regardless, to be successful in the role, this Innovation Director must be a seasoned veteran of the mid- to upper-level management ranks of the company. The work in building the Innovation Department from scratch involves a significant degree of promotion, cross-coordination, and politicking.

From inception, it generally takes about 12-18 months before the Innovation Department assembles a permanent and stable collection of innovation processes under its stewardship. In these early months, the Innovation Director is consumed primarily with exploring, testing, and probing for the best “angles” from which to catalyze cross-functional innovation processes. Very often, the fledging Innovation Department consorts heavily with experts, consultants, and academics – trying to understand existing best practices and next practices. Also in this early “inception” phase, the Innovation Director will begin launching various pilot projects as tests of how to architect durable cross-functional innovation process across the company. Those pilots that “stick” eventually sediment themselves into the company’s collective consciousness.

Somewhere in the range of 1 to 2 years after inception, the Innovation Department will progress into “building” phase. In this stage of development, standard toolsets and software platforms are procured for use across the enterprise. Frequently, these tools and platforms have already been used in the various pilot programs conducted in the “inception” phase of development. Now, in the “building” phase, the Innovation Director winnows the list of standard tools and platforms to those handful that have proven repeatably successful in different scenarios and with different groups. Thus, the Innovation Director will “double down” with a handful of providers out of the longer list of experiments and pilot projects.

Alongside the standardization of tools and platforms, the Innovation Department will begin to assemble best practice guidelines for the cross-functional innovation processes it supports. For example, many of today’s Innovation Departments maintain a company-wide intranet portal for ideation and collaboration. In conjunction with providing the availability of this platform, the Innovation Department will establish documentation, handbooks, how-to guides, and other aids for neophyte innovators and new hires. Over time, the Innovation Department will also begin to curate company policy on how – and when – various groups and employees should become involved in the company-wide innovation process. The Innovation Department will also usually build a battery of promotional materials to champion the cause of innovation across the company. This can range from email messages informing people of new initiatives; to advertisements and promotions aired on company-internal TV channels and all-hands meetings and events; to incentives which reward the “top innovators.”

Organic development

In many other cases, the drive to create a cross-functional Innovation Department does not originate with top management. Instead, it is an emergent property developed within specific business units such as R&D, Marketing, and Business Development.

In such cases, the imperative comes as a result of a local Innovation team which has begun to grow beyond its original charter. For instance, Product Marketing may develop a dedicated innovation facility for assembling and interpreting the data it collects from ethnographic field studies; Voice of Customer surveys; showroom dream sessions with lead users; etc. Once this group has mastered the ability to collect and synthesize customer-needs data from the external world, it will become increasingly heavily involved in product planning and strategic portfolio optimization.

However, these activities require input from other groups as well. For instance, R&D's input will be crucial if any of these ideas is to exist in reality as a finished product. If Marketing puts product visions into place without prior consultation, the projects often languish unfinished – postponed by unconvinced engineers who are (perhaps unconsciously) dragging their feet. Therefore, the best practice is for the Innovation group within Marketing to find the appropriate channels to involve R&D directly in its own product-planning exercises. When such cross-functional efforts develop sustainably, the seeds for a dedicated cross-functional corporate Innovation Department have been sown. Similar stories can be told where the starting point is within R&D or Business Development.

As the Innovation Department emerges in this bottom-up fashion, the critical moment is when it gets dedicated support and resources at a higher level. At some point, a senior executive must realize the strategic importance of this implicit institution-building, and be willing to champion its cause. Otherwise, the fledgling Innovation Department will waver in a state of purgatory, equipped with potential to break out of the vertical silo where it was born, but unable to find a home with a more centralized reporting structure.

Assuming that the bottom-up Innovation Department does achieve this watershed cross-over, it will begin to struggle with some of the problems of the top-down Innovation Department. It must gain support from other operating units, and work to consolidate a cross-functional set of process tools, practice guides, and promotional efforts. Fortunately, by the time it breaks out of its native silo, the bottom-up Innovation Department will have already made some headway on these early goals. Therefore it can often progress to the “building” stage very quickly after inception, bypassing most of the 12-18 months otherwise spent in the “inception” phase.

5. Concluding Thoughts

Above all, it's important to remember that the emergence of cross-functional Innovation Departments is a recent phenomenon, confined mostly to the past 5 to 10 years. Therefore, even the most advanced Innovation Departments are still exploring and experimenting with new policies, practices, and approaches to supporting innovation for their company.

Further, many other companies are only just now launching a true Innovation Department. They may have already put the pieces together within R&D, but not yet within Marketing (for example). Or, they may have a CEO who has placed a strong "innovation directive" near the top of the company's strategic priority list, but the on-the-ground Innovation Department is still struggling to create a reasonable and workable framework of policy and process. Beyond these companies, the vast majority of firms in the world today are still wondering how innovation really works in a systematic way for their company. They have only just begun to think about embarking on this major voyage.

At I-Nova Software, we believe that the worldwide development of the Innovation Department merits further attention in the years to come. Currently, we are witnessing only the very early beginning of a corporate trend that will only deepen and mature over in the coming years.