

# THE UNFUZZY FRONT END

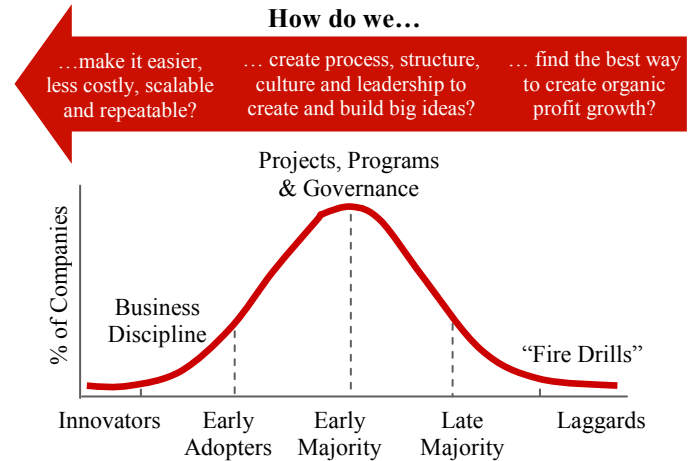
## LESSONS FROM THE EARLY ADOPTER FRONTIER

**I**nnovation can be messy. By definition, it has more risk and more uncertainty than an existing business. A few years ago, the primary hurdle for the front end of innovation was simply organizing, funding and launching the process. Over the past year, however, many organizations have begun to experience challenges with the innovation process itself.

Overcoming these challenges will become increasingly important for innovation, as a business discipline, to generate profit growth. There is certainly no single answer — every company’s experiences and approach to resolve these obstacles will vary. Few companies have been able to solve all of these challenges well.

As a business discipline, innovation is following a classic adoption curve - with Early Adopters, Early Majority, Late Majority and Laggards. Each of these groups is struggling with different aspects of institutionalizing innovation (Exhibit 1). The focus of this paper is to examine the challenges of the Early Majority and match them with the best-practice solutions of the Early Adopters, who are making front end unfuzzy. The five challenges and corresponding best practices described in this paper have evolved from our work with and study of innovation leaders such as Procter & Gamble, General Mills, PepsiCo, Bank of America, Johnson & Johnson, GE, Cardinal Health, UPS, IHG<sup>+</sup>, and Georgia-Pacific among others.

Exhibit 1:



activities. An organizational structure that properly supports both ventures can help relieve this tension and ensure that both endeavors can be successful.

McNeil, a division of Johnson & Johnson, addressed this challenge between *exploration* and *fortification* by adopting a principle of “separateness.” Separating the organizational structures, processes and budgets allowed McNeil to balance the allocation of resources across *exploration* and *fortification* more effectively. In fact, a variety of innovation-focused organizational structures exist. The three most common are skunk works, cross-functional teams and ambidextrous organizations.

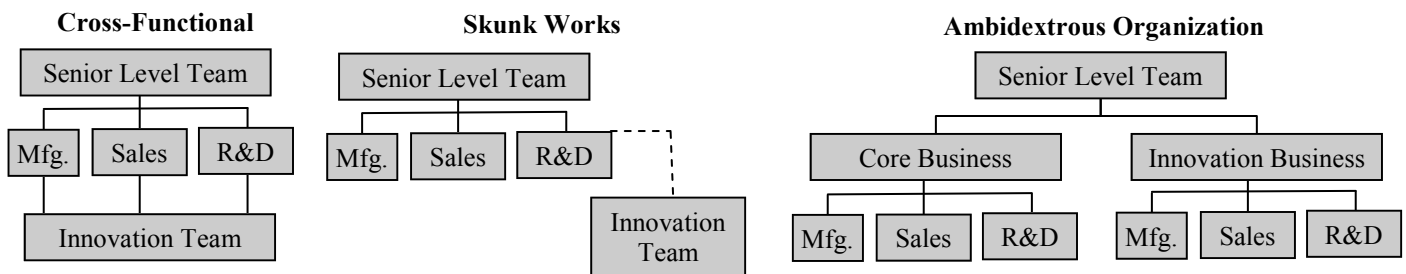
Traditionally, a cross-functional structure divides resources between the core business and the innovation business in order to leverage the expertise of all business functions (Exhibit 2). Harley Davidson found success with cross-functional teams, combining expert input on innovative ideas from various functions in the organization.<sup>1</sup> However for other organizations, 10 people at 10 percent each do not add up to one person at 100 percent. To solve this problem, a skunk works team is carved out of an existing function (e.g., Research and Development) and the new team operates with complete autonomy, outside the regular organizational structure (Exhibit 2). Georgia-Pacific, a company with a strong manufacturing, consumer brand and

### Obstacle #1

**“We see unhealthy tension between core fortification and new opportunity exploration. We need to balance these efforts.”**

Almost every company engaging in innovation faces this classic struggle. How do you invest resources to preserve your current market position while trying to investigate new opportunities at the same time? The first step toward a formal innovation process for most organizations is to dedicate a portion of an existing team to innovation. This is usually a temporary solution at best. It often creates a tension between focusing on the demands of the core business to the exclusion of innovation

Exhibit 2:



<sup>1</sup> Brunelli, Mark, “How Harley-Davidson Uses Cross-Functional Teams,” Purchasing.com 11 November 1999.

<sup>+</sup> Note: IHG, the owners of the Holiday Inn, Hotel InterContinental and Crowne Plaza brands, changed its name from the InterContinental Hotels Group in 2007.

R&D focus, found that a separate skunk works structure helps to balance the competing demands across these three areas of focus.

While these structures can be effective, research shows that an ambidextrous organization creates the greatest success across various industries. Ambidextrous organizations function by completely separating the “old business” from the “new business.” However, both of these units are managed by a single senior team at a level high enough in the organization to have profit and loss responsibility for both sides of the business (Exhibit 2). This allows the *exploration* side of the business to develop the culture, structure and processes that are most efficient for producing world-class innovation while preserving investment in the core business. This structure also guarantees that there are dedicated resources pursuing innovation. In a study published by the Harvard Business Review more than 90 percent of ambidextrous companies achieved their goals for breakthrough innovations.<sup>2</sup>

Innovative companies, such as UPS, have succeeded by following the ambidextrous approach. UPS created a group dedicated to conceptualizing, building and commercializing new businesses. One of the hallmarks of its ambidextrous approach is a team comprised of full-time marketing, finance, sales, operations and IT people that spend a multi-year rotation in the conceiving, build or commercialization functions. These teams are cross-functional due to their role in the company, but fully dedicated to the innovation process during their defined rotations. The UPS innovation group reports to the Executive Committee – ensuring profit and loss visibility between *fortification* and *exploration*. This structure led to the creation of UPS’s Service Parts Logistics unit, an innovative service that manages and stores inventory for their clients’ customer service departments, thereby reducing steps in their customers’ supply chains. UPS’s Service Parts Logistics has become a leader in the emerging \$3.2 trillion market for outsourced logistics management.<sup>3</sup>



### Obstacle #2

**“We have the seeds for plenty of ideas. What we need are the tools and techniques to create bigger, bolder ideas that lead to real change.”**

Most innovation leaders agree that ideas are easy to generate but big ideas – true breakthroughs that lead to sustainable profit growth – are rare. To overcome this hurdle, Early Adopters have developed a variety of tools to bring new and exciting ideas to the table and, importantly, to create bigger ideas from initial observations and insights. Here are seven specific methods innovative companies have developed to nurture and grow bigger, bolder ideas:

#### Employee Testing

Gillette’s employees come to work unshaven and use products in the company’s on-site Shaving Test Lab. The new product development staff then probes these employees’ reactions and

feedback via one-on-one interviews to draw out specific attributes, shortcomings and advantages of each product concept.<sup>4</sup>

#### Immersive Research

In order to better understand how consumers handle their finances, the Bank of America innovation team spent time immersed with customers balancing their checkbooks. They noticed that many customers would round up expenses so the account balance would never be overestimated. This observation led to the Keep the Change® program which has created over \$1 billion in additional deposits in a little over two years.

#### Cross-Industry Insights

For many years, Frito-Lay’s single-serve business had experienced very little growth. This led Frito-Lay to examine another convenience store category. Candy companies competed for the same shelf space and some purchase occasions but were experiencing growth at double to triple the rate of Frito-Lay’s single serve business. A closer look into the candy category revealed “King” size packaging of popular candy brands as the source of growth. This insight led Frito-Lay to introduce the “BIG GRAB” line that accelerated Frito-Lay’s convenience store business to double digit growth.

#### External Experts

In 2004, when most hospitality innovation was focused on bedding, IHG engaged an expert to more fully explore the more fundamental issue of sleep. The expert, a sleep psychologist, helped the innovation team to develop Sleep Advantage™ – a set of service commitments and in-room amenities designed to improve the overall sleep experience. The program was widely publicized in national media such as the Wall Street Journal and NBC’s Today Show. More importantly, it helped to transform Crowne Plaza from a staid brand in the minds of both franchisees and consumers into a growth engine for IHG.

#### Real Time Solution Building

Rather than ideating after completing a long course of research, General Mills runs the opportunity-building process in parallel with both research and immersion activities. As soon as a new platform or insight emerges, they begin building solutions around the observations while they are still front-of-mind. These solutions evolve and strengthen during subsequent immersions and opportunity-building workshops. This real-time idea building/generation not only helps combat innovation fatigue but it also helps to evolve ideas over time based on new findings.

#### Global Product Search

Global product review is another technique for finding big ideas. Globalization means that consumer needs are flattening out. As needs level out, products created to fulfill local demand often fulfill demand far beyond the local market as well. Chances are that if a company identifies a customer need, someone has already thought of a solution for it somewhere in the global marketplace. Birds Eye Foods discovered the packaging for the Steamfresh™ brand on a store shelf in Japan. In its first year the

<sup>2</sup> George S. Day, Charles O’Reilly III and Michael Tushman, “The Ambidextrous Organization,” Harvard Business Review April 2004.

<sup>3</sup> Donald L. Laurie, Yves L. Doz, and Claude P. Sheer, “Creating New Growth Platforms,” Harvard Business Review, May 2006.

<sup>4</sup> Khan, Kenneth B., PDMA Handbook and New Product Development (Hoboken, NJ: John Wiley & Sons, Inc., 2005).

Steamfresh™ brand exceeded \$100 million in revenue in the United States.

Insight Reverse Engineering

Some innovation leaders have found success in using “reverse engineering” to develop winning innovative products. This technique examines a successful new product in the market to uncover the key consumer or customer insight driving its success. This insight is then used to spark the development of a new product based on the same insight. It is important that this insight is used to develop a *new* offering rather than simply a *better* version of the original product. General Mills effectively used this technique when Kraft introduced 100-calorie packs. General Mills uncovered two consumer insights driving the success of this concept: (i) consumers need help limiting calories between meals, when they are more likely to give in to temptations and (ii) as consumers seek ways to control their portions, packaging can play an important role in portion control. Using these insights in combination with other research, General Mills successfully developed an innovative 150 calorie single-serve dessert line by Betty Crocker called Warm Delights™ Minis. With Warm Delights™ Minis, General Mills was able to create a growth opportunity in the baking mix category, a category that had previously been in a steady decline.

Innovation leaders use creative approaches to make the front end experiential and immersive. Innovation from the cubicle, idea generation from “behind the glass,” and consumer interaction from the bench top are anathema for these innovation leaders.

**Obstacle #3**  
“We generate plenty of ideas. What we need is a process that leads to significant new profit pools.”

In order to get the most out of a consumer or market insight some innovation leaders like Cardinal Health have a process that deliberately stretches initial insights to identify new profit pools.<sup>5</sup> Cardinal Health recognized that hospitals were experiencing pressure to control costs, a staff shortage and outdated knowledge management systems. When these observations were “stretched,” Cardinal identified specific areas of high costs and poor management.

One of these areas was the internal distribution system for medicines. It was complex and full of opportunities to make

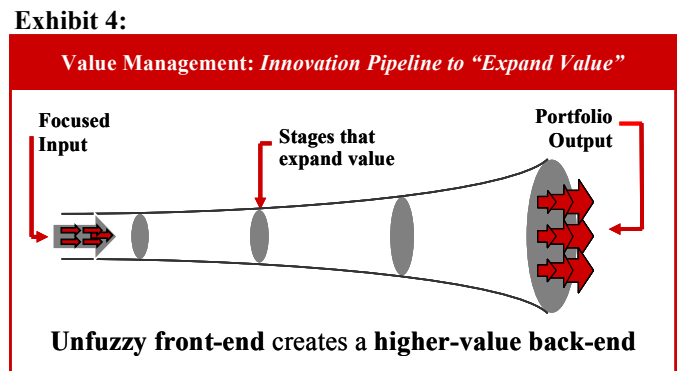
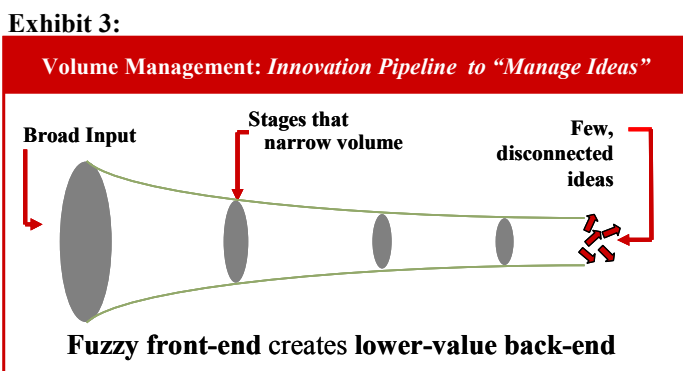
costly mistakes such as administering the wrong medicine. Cardinal Health is a leader in handling, managing and tracking drugs. Based on these capabilities, Cardinal developed complete management systems for hospital pharmacies that relieved the hospital’s cost pressures associated with managing their own pharmacies. Cardinal Health continued to stretch the insights into other highly successful offerings such as an automated drug dispensing machine. Today, Cardinal Health serves 90 percent of hospitals using such machines.<sup>6</sup>

Another way to approach this challenge is through *abductive thinking*<sup>+</sup>. A.G. Lafley, Chief Executive Officer of Procter & Gamble, recommends using an *abductive* process to ensure the ideas that make it to the end of the front end pipeline provide the greatest value to the company. According to Lafley, *abductive* thinking requires that the number of ideas in the pipeline should not be narrowed until the end of the innovation process. This provides time for the discoveries made throughout the process to add value to the ideas.

However, applying *abductive* reasoning to innovation is not an easy concept. Some of the most advanced innovation leaders have shifted their mindset from using the pipeline to reduce the *number* of initiatives to increasing the *value* of the portfolio of initiatives. This pushes companies to move away from thinking of the innovation pipeline as traditional *volume management* (Exhibit 3) and toward next-generation *value management* (Exhibit 4). When innovation processes were first being established and companies were focused purely on idea-generation it made sense to manage the process for numbers; however, today’s focus on profit growth requires disciplined value management.

To employ *abductive* thinking, design the pipeline to assess both the number of ideas and the economic value<sup>++</sup> each idea will create. The strength of the pipeline is evaluated by a simple equation: number of ideas times the value of these ideas. The number of ideas may decrease but their individual value should increase at each stage, collectively summing to a greater value.

Whether it is a shift in thinking about key consumer insights or the idea pipeline, these modifications to the front end innovation process can help produce ideas with significant value and break the inertia of incremental innovation.



<sup>5</sup> Cardinal Health Presentation, Frost and Sullivan Conference, June 2008

<sup>6</sup> Adrian Slywotzky, et al., How to Grow When Markets Don’t (New York, NY: Warner Business Books, 2003) 18-40.

+ Abductive thinking is a method of reasoning where the chosen hypothesis explains what “may be”, opposed to explaining what “is” or “must be.” The hypothesis may not necessarily be true.

++ Note: It is important that economic value is measured by contribution to profit (e.g., NPV or EVA) rather than revenue.

TO DO:

**Obstacle #4**

**“We have a front end process that generates big, bold ideas and leads to new profit pools. We need a way to prioritize what to build.”**

Some companies may find it relatively easy to come up with lots of valuable opportunities, but find it difficult to prioritize the right opportunities to drive profit growth. Time and money are not infinite resources, and therefore it is critical to focus resources on the innovations that will produce the most value (i.e., long-term profit growth).

Early Adopters like Procter & Gamble, UPS, IHG, and Georgia-Pacific focus their innovation efforts around strategic platforms likely to lead to big ideas in new profit pools. These Early Adopters have employed robust processes for assessing business opportunities. The emerging best-in-class approach is based on identifying and prioritizing strategic platforms based on deep, rigorous market research. These platforms start with an insight, address a specific need and provide a clear benefit for a specific target segment.

Platforms allow the organization to focus their unique assets and capabilities on areas of demand that have the highest potential to drive profit growth. These platforms are the result of deliberate research into consumer, competitive, company, value-chain and industry inputs. The platforms are evaluated and prioritized by first assessing the depth of demand – both the number and relevance of potential new opportunities. Next, these platforms are evaluated based on Future Market Economics and Ability To Win.

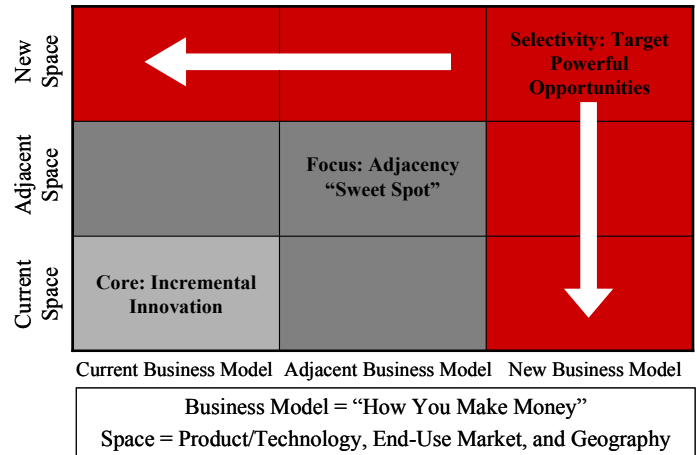
- Future Market Economics is a combination of expected growth and profitability of likely business opportunities.
- Ability To Win is an assessment of how the organization’s assets and capabilities align with what will be needed to build incremental, adjacent or new offerings for the platform.

With this approach, these Early Adopters implicitly focus idea development on strategic platforms known to have significant demand, attractive future economics and characteristics that leverage existing assets and capabilities.

General Electric is another example of an innovative company that actively prioritizes business opportunities. Jeff Immelt, GE’s chairman and CEO, has set a target of 8 percent annual organic growth for the company, which represents more than \$12 billion in organic growth every year. Without the ability to meet this goal with mergers and acquisitions or cost-reduction initiatives, GE’s strategy team quickly realized that merely incremental innovation initiatives would not be enough to deliver \$12B of growth.

As part of its innovation strategy, GE has chosen to focus innovation efforts on new opportunities called Imagination Breakthroughs, while the existing core business drives incremental

Exhibit 5:



innovation. To implement this strategy, GE uses an evaluation matrix that assesses both the business model and market space of potential initiatives. GE’s innovation team focuses only on selected opportunities that are in either adjacent or new business models or space (Exhibit 5). Through this process, GE has been able to prioritize and focus resources on breakthrough innovations such as the Very Light Jet Engine to serve the emerging air taxi market and the Evolution™ series locomotive - the most technologically-advanced, fuel-efficient diesel locomotive.<sup>7</sup>



**Obstacle #5**

**“We are proficient at identifying and developing ideas. We struggle, however, with transitioning opportunities from the front end into build and launch stages.”**

The point at which ideas move from the front end of innovation to the build stage is critical, as leadership must decide how to commit resources to bring selected business opportunities to life. This can be a challenge when an organization is more focused on fortifying the core rather than exploring new territory. Often times, a heavy focus on close-in innovation leaves a shortage of available build resources when it comes time to push larger, transformational innovation projects into the build stage.

An innovator at Johnson & Johnson observed that, “The best Fortune 100 companies see innovation as an ongoing capability, not a one-time event. These companies work hard to build muscle around this capability so they can deploy it when they need it, where they need it, tackling their hardest problems.”<sup>8</sup> Many organizations focus on growth into new business models or new market space but lack the “muscle” or dedicated resources to build the new business. Early Adopters have developed two different approaches to address this challenge:

Existing Owner

General Mills successfully drives innovation projects through to implementation by identifying a clear owner for new innovation initiatives from within existing business units. General Mills has found more success with this method than allowing a centralized

<sup>7</sup> Patia McGrath, “Aligning Your Innovation Portfolio with Global Trends”, Conference Presentation, General Electric, 9 June 2008.

<sup>8</sup> Drew Boyd, Director, Marketing Mastery for Johnson & Johnson, Ethicon Endo-Surgery division, “Innovation Muscle”, Innovation in Practice, The Fortune 100 Perspective, 18 May 2008, June 2008

group to identify new opportunities and then pushing these ideas to the business units for build and launch. By linking the opportunity identification and implementation processes, General Mills ensures ownership of the idea as it is transitioned from the front end into the build and launch stages.

#### Formal Dedicated Team

UPS maintains a separate, dedicated team to build new businesses. This team owns profit and loss responsibility for new products for up to two years before successful businesses are then transitioned back into a core business team.

Another common solution - prototyping and piloting - can help to validate a business opportunity in a low risk, test-and-learn environment and consequently support the case for more funding. Bank of America develops proof points for a concept through testing. In 2007, the company developed a pioneering cash-handling solution — a secure waist-high device that is located at the customer's operations. Bills are inserted into the machine, which sorts, counts and secures the cash. The device connects directly to Bank of America's network and credits the customer's account before the cash even leaves the premises. In order to prove its success, Bank of America initially piloted the concept with select Chick-fil-A stores (a growing fast food chain that has 1,300 restaurants in 37 states) to gauge performance and response. Results and feedback from the pilot informed improvements to the concept as well as provided needed internal support and ownership critical to the success of a larger-scale launch.

IHG uses a "Concept Car" approach to building new opportunities. A Concept Car is a prototype made to showcase a concept, new styling or technology. This approach, borrowed from the auto industry, is used to gauge customer reaction to new and radical designs which may or may not have a chance of being produced commercially. By definition, Concept Cars are continuously evolving products that serve to rapidly adopt, test and commercialize components of a potential new product.

Both the structural solutions of General Mills and UPS and the process solutions of Bank of America and IHG ensure that new business opportunities developed in the front end have the organizational support to be effectively transitioned to the build and launch stages.

#### **Summary**

The technology adoption curve, with its widely used lexicon of Innovators, Early Adopters, Early Majority, Late Majority and Laggards, can be applied to the adoption of best practices in

innovation. Several years ago the Early Majority were struggling to understand if disciplined innovation was the right process for encouraging and fostering organic growth.

Today, all but the most stalwart Laggards accept innovation processes as successful drivers of organic growth. The Early Majority is now focused on refining their processes to move beyond incremental innovation to create bigger opportunities. Early Adopters are continuing to push the frontier by creating processes and structures that are repeatable, scalable and systemic. Together, both groups are working to make the front end unfuzzy.

Albert Einstein said, "We can't solve problems by using the same kind of thinking we used when we created them." We could not have said it any better. The thinking required to solve the challenges of innovation is often found somewhere else on the adoption curve. For the Early Majority and the Late Majority, it is thinking about the solutions pioneered by Early Adopters. For Early Adopters it is thinking both externally and comprehensively about all five challenges. We believe that companies who implement solutions across all five of these challenges will achieve significant profit growth and shareholder return.

### **LESSONS FROM THE EARLY ADOPTER FRONTIER**

#### **Exploration vs. Fortification**

- Adopt a principle of separateness
- Evolve toward an ambidextrous structure

#### **Growing Bigger, Bolder Ideas**

- Create immersive experiences to find deep insights
- Study other industries and categories for insights
- Include external experts
- Search for global products that match consumer needs
- Employ insight reverse engineering

#### **Turning Innovation into Profit Growth**

- Stretch insights and use abductive thinking
- Shift innovation pipeline to value-management

#### **Prioritizing Innovation Ideas**

- Identify and prioritize strategic platforms
- Pick your "sweet spot" along the business model and market space continuums

#### **Moving into the Build Stage**

- Implement and communicate clear ownership process
- Prototype and pilot potential ideas and consider a Concept Car approach

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(r)evolution is an innovation and marketing strategy firm that collaborates with large organizations to connect primary demand to profit growth. For more information, visit [www.revcompany.com](http://www.revcompany.com).

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