

**Instructor Resources
for Teaching With**

*The Other Side of Innovation
Solving the Execution Challenge*

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Harvard Business School Press: 2010

Book Overview

Genius is one percent inspiration, ninety-nine percent perspiration. Thomas Edison said it over a century ago. No one listened.

When companies launch innovation initiatives, they typically allot almost all of their time and energy on that initial one percent — the thrilling hunt for the breakthrough idea. But the much ballyhooed burst of inspiration ... is merely a starting point. The real innovation challenge lies beyond the idea. It lies in a long, hard journey — from imagination to impact. That journey is the *other side* of innovation.

For ten years, Vijay Govindarajan and Chris Trimble have studied one critical question, one that vexes even the best managed corporations: *What are the best practices for **executing** an innovation initiative?*

Regardless of the type of innovation, the crux of the challenge is always the same. Business organizations are not designed for innovation, they are designed for ongoing operations. And there are deep and fundamental conflicts between the two.

Drawing on examples from innovators as diverse as Allstate, BMW, Harley Davidson, IBM, Nucor, and Timberland, *The Other Side of Innovation* shows how to avoid the most common poisonous myths about innovation, how to build the right team for any initiative, and how to ensure that you learn quickly from experience as the initiative moves on.

What's Included in this Resource Pack

The Other Side of Innovation can be the basis for a semester-long MBA course. It can also support modules in several courses, including strategy, strategy implementation, general management, organizational design, change management, innovation, and technology.

As the possibilities for teaching with *The Other Side of Innovation* are wide and varied, we have included the following:

- A recommended sequence for teaching the central concepts in *The Other Side of Innovation*.
- Lists of selected case studies, readings, and exercises by central concept. All of the case studies are available either on the book's website, theothersideofinnovation.com, or in the Harvard Business Publishing case library, hbsp.harvard.edu. (For additional readings, refer to the Scholarly Foundations appendix in *The Other Side of Innovation*.)
- A sample syllabus. Chris Trimble used this syllabus in 2011 in an 18-session course he taught at the Tuck School of Business at Dartmouth.
- Suggested classroom discussion questions for each case study.

Conceptual Sequence

Concept #1: Three Models for Innovation

The introduction to *The Other Side of Innovation* outlines three models for executing innovation initiatives. Briefly the three models are:

- **Model 1: Innovation = Ideas + Motivation.** The basic idea here is that if you stimulate creativity and add to it both empowerment and motivation, innovation will just naturally happen. When companies speak of having a culture of innovation, this is generally what they are referring to.
- **Model 2: Innovation = Ideas + Process.** Innovation is just like any other business process. You script the process as specifically as possible, give people highly specified roles, measure performance, and improve.
- **Model 3: Innovation = Ideas + Leaders + Team + Plan.** To get beyond the limitations of the first two models, you need the obvious – a good idea and someone to lead the way forward. But you also need a *special kind of team* and a *special kind of plan*. The bulk of *The Other Side of Innovation* addresses these two critical topics: *team* and *plan*.

All three models are important and powerful. All three can exist simultaneously within a single company.

The first two models are reasonably straightforward. It is not hard to find companies that are very good at them. If time is tight, it is reasonable to briefly describe these first two models and then move on quickly to tackling the more challenging third model.

That said, students that develop a deep and intuitive understanding of these first two models *and their limitations* will more deeply understand the logic and rationale for the third model. As such, there is strong value in spending as many as four class sessions focused on these first two models.

We recommend the following case studies for exploring the first model, **Innovation = Ideas + Motivation**:

- Continuous Process Improvement at Deere & Company (website)
- Toyota: Decoding the DNA of the Toyota Production System (*Harvard Business Review* Article that teaches well as a case study.)
- Infosys: Maintaining an Edge (website)
- Improving Productivity at Infosys (website)
- E-Business Innovation at Cisco (website)

For the second model, **Innovation = Ideas + Process** we recommend:

- The John Deere 8030 Tractor (website)

Concept #2: Overview of a Special Team and a Special Plan

To show the need for the third model, it is important to demonstrate to students that organizations are built primarily for maximizing performance in ongoing operations. They are designed to be “Performance Engines,” as described in *The Other Side of Innovation*.

There are fundamental incompatibilities between innovation and ongoing operations. Specifically, the Performance Engine strives for repeatability and predictability in every activity, while innovation is, by nature, non-routine and uncertain. These incompatibilities lead directly to the need for a special kind of team and a special kind of plan.

Unfortunately, these needs are generally overlooked. All too often, innovation leaders approach their task with a “fight the system” / “break all of the rules” mindset. This is rarely effective. Innovation leaders *need* the Performance Engine. Indeed, it is rare for established organizations to launch innovation initiatives that fail to build on what already exists — a brand, a manufacturing capability, an area of scientific expertise, relationships with customers, etc. There must be mutual respect between innovation leaders and Performance Engine leaders.

Beyond the limits of the first two models, innovation initiatives must be organized as *internal partnerships* between a Dedicated Team and a Shared Staff. The *partnership* is the “special kind of team.” The Dedicated Team is a small group of people fully dedicated to a single innovation project. The Shared Staff, which remains part of the Performance Engine, supports the innovation initiative while simultaneously sustaining excellence in ongoing operations. Key success factors include: 1) Assigning only *more* work, not *different* work to the Shared Staff. 2) Building the Dedicated Team as though you are building a new company from scratch. 3) Carefully managing the partnership. It is delicate, because of the many inherent conflicts between innovation and ongoing operations.

Innovation initiatives should be managed as *disciplined experiments*. The machinery of planning within Performance Engines is incompatible with this objective because it is grounded in the basic assumption that the business is an ongoing concern — that is, that this year will look a lot like last year. Thus, a special kind of plan, and a special planning process, is needed. Key success factors include: writing a custom plan from a blank page, focusing on learning quickly by

systematically resolving unknowns, and evaluating the innovation leader based primarily on how well he or she executed a disciplined experiment.

We recommend the following materials for introducing the concepts of a special kind of team and a special kind of plan, and for further exploring the limits of the first two models.

- *How Stella Saved the Farm: A Wild and Woolly Yarn about Making Innovation Happen* (a parable, to be published by St. Martin's Press in 2012 or 2013. Prior to that, advance copies available at www.howstellasavedthefarm.com.)
- Joline Godfrey and the Polaroid Corporation (Harvard case library)
- Dow Jones: Innovation in Print and Online (website)
- Hospital Equipment Corporation (Harvard case library)
- Corning Microarrays Technology (website)

Concept #3: Building the Special Kind of Team

Rule #1 when setting up this partnership is to *do no harm* to ongoing operations. As such, the Shared Staff has little flexibility. It's organizational model cannot change. Individual roles and responsibilities cannot change. Indeed, the only thing that *can* change is that the Shared Staff can get bigger as it takes on more work. This should be no problem. Performance Engines are quite practiced at scaling up. That said, the need to add resources to the Shared Staff is frequently overlooked. Because innovation leaders do not directly control the Shared Staff's budget, they may find themselves begging for volunteer contributions for longer than such an approach is realistic.

The Dedicated Team, by contrast, has unlimited flexibility. Indeed, the right way to approach the construction of the Dedicated Team is to adopt the mindset that you are building a new organization from scratch. You don't get breakthrough innovation without substantial organizational change. That said, in this model, *only* the Dedicated Team sees dramatic change. The Performance Engine is left essentially untouched. (*Innovation* efforts are very different from *change* efforts, which explicitly aim to alter the Performance Engine.) Internal organizational norms should not serve as precedents. Recruits from inside and outside the company should be considered on equal footing. Roles and responsibilities should be defined from scratch. Work processes should be defined from scratch. Quite often, an intensely uncomfortable part of the process is creating an unfamiliar hierarchy within the Dedicated Team. For example, a manufacturing company launching a new IT-centric service might need a Dedicated Team dominated by software engineers even though the company as a whole is dominated by manufacturing experts.

The partnership between the Dedicated Team and the Shared Staff is delicate and difficult. There are natural conflicts between innovation and ongoing operations, especially conflicts over resources and priorities. Generally, the innovation leader has less power, or even far less power, than Performance Engine leaders. Thus it is critical for a senior executive to take on the role of active adjudicator, and to be ready to intervene in operational issues that are typically below the C-Suite radar screen. Several additional techniques can help create a more healthy partnership, especially ensuring that the Shared Staff has sufficient resources to do both of its jobs, and that the extra resources are charged to the innovation leaders P&L, not the Performance Engine leader's P&L, through an internal accounting transfer.

Case studies that are particularly well-suited for digging deeper into the mechanics of building a healthy special-kind-of-team include:

- New York Times Digital (website)
- Infosys Consulting (website)
- Universitas 21 Global (website)
- Dartmouth-Hitchcock Medical Center: Spine Care (Harvard case library)
- Analog Devices, Inc: Maintaining an Edge (website)

Also, all of the case studies listed in the next section can be used to further reinforce techniques for building a special kind of team.

Concept #4: Building the Special Kind of Plan

Rule #1 when approaching the special kind of plan is “learning first, results second.” Performance Engine leaders, particularly in companies with strong cultures of accountability to plan, will have an instinctively negative reaction to putting results second to anything. However, for innovation initiatives, when you put learning first, you get better results.

We are not talking about “feel good” learning here (“hey boss, I know the project failed, but I really learned a *lot!*”). We are talking about a very specific form of learning — learning to make better predictions. Learning is a process of taking the wild guesses that are part of any innovation plan and systematically turning them into more informed estimates, and, eventually, reliable forecasts. Better predictions lead to better decisions. Better decisions lead to better results.

An overemphasis on results gets in the way. It leads to defensiveness that undermines learning and honest communication, and it leads to over-commitments to original plans.

To learn quickly, innovation leaders must focus on running a disciplined experiment. That means adhering to the basic tenets of the scientific method. Unfortunately, planning systems in

established companies weren't designed with formal experimentation in mind, they were designed for efficient ongoing operations.

Chapter 4 in *The Other Side of Innovation* lays out the basic mechanics of creating plans for running disciplined experiments. Chapter 5 offers tools and techniques for clearly communicating and rigorously updating a single hypothesis of record. Chapter 6 addresses biases that might affect the learning process, particularly the poisonous defensiveness that arises when innovation leaders are evaluated based strictly on results.

Case studies particularly well suited for digging deeper into the mechanics of building a healthy special kind of plan (or, frankly, for showing what goes wrong in the absence of a special kind of plan) include:

- Thomson in the Legal Publishing Market: Expanding the Value Proposition (website)
- Hasbro Interactive (website)
- Analog Devices, Inc.: Microelectromechanical Systems (MEMS) (website)
- OnStar: Not Your Father's General Motors (Harvard case library)
- Hewlett Packard: The Flight of the Kitty Hawk (Harvard case library)

Sample Syllabus

How to Execute an Innovation Initiative

Professor Chris Trimble, Winter 2011

Tuck School of Business at Dartmouth

Overview

To stay ahead of the game, corporations must innovate. They must improve their processes, launch new products and services, move into adjacent markets, and even launch breakthrough new businesses.

There is just one problem. Organizations are not built for innovation. They are built for ongoing operations. Furthermore, innovation and ongoing operations are always and inevitably in conflict. So, how can corporations achieve simultaneous excellence in both?

This course is based on ten years of research conducted here at the Tuck School by my co-author, Vijay Govindarajan, and me. We have published findings from this research through several channels, including three books, *The Other Side of Innovation – Solving the Execution Challenge*, *Ten Rules for Strategic Innovators – from Idea to Execution*, and *How Stella Saved the Farm: A Wild and Woolly Yarn about Making Innovation Happen*. We have also published in the *Harvard Business Review*, the *MIT Sloan Management Review*, and the *California Management Review*.

Audience

This is an interdisciplinary general management course. It is related to courses in the areas of strategy, management control, innovation and technology, and organizational behavior.

What This Course IS...and IS NOT...About

Imagine for a moment that you are a consultant and you have been asked to develop a strategy for a major innovation initiative for a large and successful company. Based on your research, you devise a business plan, and present it to the CEO. The CEO likes it, and decides to invest on the basis of your recommendation.

This course is about *what happens next*. We will focus on the challenges faced by the leaders of innovation initiatives, as well as how CEOs and other senior executives can either help or get in the way.

Thus, this course focuses on strategy *implementation*, not strategy *formulation*. That is, we are much more interested in the HOW than the WHAT.

This Course is NOT About Strategy Formulation

In the past, I have found that it is very easy for students to get caught up in, and invest a lot of energy in, analyzing issues of strategy *formulation*. Is the innovation initiative advisable or not? However, strategy formulation is generally not the best use of time in this course. The cases we'll study were not written from this perspective, and there is not enough information in the cases to support this type of discussion. Therefore, it will usually be best to avoid the following points of debate during this course:

1. Whether or not you think that the target customer will buy the innovative new product or service / whether the value proposition is compelling.
2. Whether or not you think the case company can beat the competition.
3. Whether or not you think the case company has a cost advantage.

These “Three Cs” – customer, competitor, costs – are the key issues of strategy *formulation*. I want you to assume that the case protagonists have invested a great deal of energy in developing a strategy, and that they are smart people.

This Course IS About Execution

“Execution” is a broad space. Let's narrow in a bit. We are going to focus on a subset of generic execution challenges that most any innovation initiative faces. These challenges fall into three categories:

1. Resources: Where do the resources for innovation initiatives come from?
2. Organization: How should innovation initiatives be organized?
3. Planning: How should plans for innovation initiatives be written and through what kind of process should they be revised?

While we will avoid discussing strategy formulation, it IS important to observe, the *process* by which the case company *alters* the strategy of an innovation initiative over time. This is the third of the three topics above, *planning*. Does the innovation leader gather timely information on whether the existing plan is on a trajectory to success? Is he or she open to changes in direction when new information suggests that such a change is wise? How do such changes come about?

Learning Objectives

My foundational goal in this course is to deliver a clear *prescription* for executing an innovation initiative. Indeed, you'll find that our book, *The Other Side of Innovation*, is chock full of specific advice and recommendations. The prescription includes guidelines for:

Building the Right Team

1. Assessing which portions of an innovation initiative can be executed by employees who are simultaneously responsible for ongoing operations.
2. Selecting the best people for an innovation initiative.
3. Shaping reporting structure, titles, roles, and responsibilities.
4. Managing the inevitable conflicts and tensions between teams dedicated to innovation initiatives and the rest of the organization.

Executing a Disciplined Experiment

1. Avoiding the standard planning practices that *actually get in the way* of running a disciplined experiment.
2. Evaluating an innovation leader's performance.
3. Creating a scorecard for assessing the progress of an innovation initiative.
4. Avoiding the common biases that get in the way of detached judgments of the progress of an innovation initiative.
5. Articulating a clear hypothesis about how an innovation initiative is expected to succeed.

However, understanding the prescription is only a starting point. In fact, if all you learn to do is parrot the prescription, you will have only gained a fraction of the potential value of this course. You should also be able to:

1. Understand the underlying logic of the prescription.
2. Predict the potential consequences of deviating from the prescription.
3. Understand the many pressures that make it tempting for practitioners to deviate from the prescription.
4. Empathize with the perspectives of many different players that are involved in the innovation challenge – senior executives, innovation leaders, innovation team members, leaders of day-to-day operations, leaders of support functions, and front line employees who are asked to support innovation initiatives.
5. Apply the prescription to a variety of specific real-world situations.
6. Exercise good judgment about special cases and exceptions.
7. Exercise good judgment at the next level of detail *beyond* the specific advice in the prescription.

Sessions 1-4

In the first three sessions, we will illustrate two approaches to innovation that work well but have sharp limits. Session 4 shows what happens when a company tries to exceed these limits. This establishes the need for a third model – which is the core prescription in the course.

Session 5

Here, we will use a special kind of case study – a fictional one. *How Stella Saved the Farm: A Wild and Woolly Yarn about Making Innovation Happen* is a parable about a farm in trouble, and how it innovates to get out of trouble. By reading and discussing the story, we will introduce the

prescription and also take our first crack at some of the more challenging learning objectives – numbers 2, 3, and 4 in the list above.

Sessions 6-8 and 13-18

After *Stella* we will start tackling more challenging cases. Only through deep examination of rich case studies can we achieve all of our learning objectives above. As we progress through these cases I will continue to introduce more and more of the specifics of the prescription.

Sessions 10-12

In these special sessions, we will run a computer simulation loosely based on the experience of New York Times Digital (Session 8). The simulation will give you the chance to practice using some simple and practical planning tools for uncertain environments.

Preparation Guidelines

When you prepare for class, I'd like you to spend 80% of your study time focused on the cases themselves. You should read each case at least twice.

You'll see that I do assign other readings.

- The *Fast Company* columns are brief and easy reads intended as extra reinforcements of the most foundational concepts in the class.
- The readings from academic journals are intended to give you exposure to the formal intellectual underpinnings of the key ideas and frameworks delivered in the course, and to show how the central ideas in this course are tied to broader themes. I suggest you spend about 15 minutes with each academic article. Focus on the introductions and conclusions, and skim the middle to gain a sense for the type of study that the article presents.
- The best use of the book *The Other Side of Innovation — Solving the Execution Challenge* is as review and preparation for the final exam.

I recognize that you have limited preparation time, and I want you to spend as much of that time as possible *doing the work that really matters – studying and interpreting each case*.

The great majority of the cases you study during your MBA are *decision* cases. To tackle a decision case, you often apply a known framework or method. You draw information from the case study that is relevant (and in many cases eliminate even more information that is not relevant), make a choice, and prepare evidence to back up your choice.

The cases in this course are different. They do not end with a single, specific choice that you are supposed to analyze. Your task is different. It is not to *decide*, it is to *diagnose*. In a diagnostic case, almost all information is relevant. Your job is to come up with your own explanations of what is happening and why. The case studies in this class fall into two categories:

Exemplars. When we study success stories, your job is to figure out how they did it. What could another company learn from their example? Even more important, ask

yourself *what are the limits to the case company's approach?* That is, are there some kinds of innovation initiatives that the case company's approach would *not* work for?

Stories to Learn From. Many of the case studies in this course focus in-depth on a single innovation initiative. These cases will invite you to *put yourself in the shoes of the innovation leader*. Some are failure stories. Others illustrate early struggles followed by successful corrective actions.

We will approach these cases much like you study history. Your job is to understand the story in detail, and try to unravel the reasons that the story plays out the way it does. A common questioning approach I use in class is very simple. I will highlight a series of case facts, and ask why each is relevant to the story. How did it have an impact on the flow of events? Be prepared for this type of questioning.

By the way, there are no stupid people in these cases. If you disagree with a decision made by one of the people in the case, your job is not simply to conclude that you would have done something different, but to ask yourself *why a smart person would make the decision that they made*. Is it connected to their background / experience? Particular pressures that they are under?

In these case studies, pay particular attention to the *timeline*. Ask yourself why things happened *at the time that they happened*. *Read between the lines*. Constantly ask yourself for explanations of what is happening in the case and why.

The more you ask yourself WHY, the sharper your intuition will be if you find yourself leading an innovation initiative or advising a leader of one. Many, if not most, leaders of major innovation initiatives have *never* led one before. This class offers you several opportunities to get “virtual” experience. Make the most of them. After you get your degree, you play for keeps. Leading an innovation initiative can accelerate your career — or end it.

Schedule of Case Studies and Readings

This table shows the case studies I happened to use in 2011, and I offer it simply as one possible sequence. I mix up the selections quite a bit from year to year, and routinely use the other case studies in this resource pack that do not show up on the table below.

Session	Case Study	Readings
1	Continuous Process Improvement at Deere & Company (Tuck Case)	<ul style="list-style-type: none"> • Read Full Syllabus Carefully. • Fast Company: “Our Wish for 2005” • Fast Company: “Strategy, Execution, and Innovation”

2	Infosys: Maintaining an Edge, and Improving Productivity at Infosys (Tuck Cases)	<ul style="list-style-type: none"> • Toyota: Decoding the DNA of the Toyota Production System (<i>Harvard Business Review</i> Article) • Mary Benner and Michael L. Tushman, “Exploitation, Exploration, and Process Management: The Productivity Dilemma Revisited,” <i>Academy of Management Review</i> 28 (2003): 238–256
3	Deere 8030 (Tuck Case)	<ul style="list-style-type: none"> • Dorothy Leonard-Barton, “Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development,” <i>Strategic Management Journal</i> (Special Issue, Summer 1992): 111–12
4	Joline Godfrey at Polaroid (HBS Case 492037)	<ul style="list-style-type: none"> • Fast Company: “Ideas are Not Enough” • Hubert Gatignon, Michael L. Tushman, Wendy Smith, and Philip Anderson, “A Structural Approach to Assessing Innovation: Construct Development of Innovation Locus, Type, and Characteristics,” <i>Management Science</i> 48, Issue 9 (2002): 1103–1122
5	<i>How Stella Saved the Farm – A Wild and Woolly Yarn About Making Innovation Happen</i>	
6	Hospital Equipment Corporation (HBS Case 697086)	<ul style="list-style-type: none"> • Fast Company: “Amnesia by Design” • Rebecca M. Henderson and Kim B. Clark, “Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms,” <i>Administrative Science Quarterly</i> 35 (1990): 9–30
7	Corning Microarray Technologies (Tuck Case)	<ul style="list-style-type: none"> • Fast Company: “Reliable Unpredictability” • Fast Company - “By the Numbers: You Can’t Quantify Learning” • Jay Galbraith, <i>Designing Organizations</i> (San Francisco: Jossey-Bass, 2002), Chapter 2
8	New York Times Digital (Tuck Case)	<ul style="list-style-type: none"> • Fast Company: “Innovation and the Inevitable Break the Rules Backlash.” • Fast Company: “Borrow, In Moderation.” • Smith, W.K. & Tushman, M.L. (2005). “Managing strategic contradictions: A top management model for managing innovation streams.” <i>Organization Science</i>, Vol. 16, No. 5, 522-536
9	Case TBA – Will Be Distributed at End of Session 8	MID TERM EXAM IN CLASS, CLOSED BOOK
10-12	Simulation: The Island Post Online (Developed at Tuck)	

13	Hasbro Interactive (Tuck Case)	<ul style="list-style-type: none"> • Fast Company: “Shooting for the Moon” • Fast Company: “Experimentation is Easy, Learning is Not” • Amy Edmondson, “Psychological Safety and Learning Behavior in Work Teams,” <i>Administrative Science Quarterly</i> 44 (1999): 350–383
14	Dartmouth-Hitchcock Medical Center: Spine Care	<ul style="list-style-type: none"> • James N. Weinstein et al, “Designing an Ambulatory Clinical Practice for Outcomes Improvement,” <i>Quality Management in Health Care</i>, 2000, 8(2), 1-20. • James G. March, Lee S. Sproull, and Michal Tamuz, “Learning from Samples of One or Fewer,” <i>Organization Science</i> 2, no. 1 (February 1991): 1–13
15	ADI: Microelectromechanical Systems (Tuck Case)	<ul style="list-style-type: none"> • <i>The Other Side of Innovation</i>, Introduction and Chapter 1 • Fast Company: “Planning Not to Learn,” • Barnaby Feder, “A Digital World with Analog as its Workhorse,” <i>New York Times</i>, Aug 9, 2004. • Deborah Dougherty and Cynthia Hardy, “Sustained Product Innovation in Large, Mature Organizations: Overcoming Innovation-to-Organization Problems,” <i>Academy of Management Journal</i> 39 (1996): 1120–1153
16	Maintaining an Edge at Analog Devices, Inc (Tuck Case)	<ul style="list-style-type: none"> • <i>The Other Side of Innovation</i>, Chapters 2 and 3 • Fast Company: “Innovation Networks” • Dougherty, D. (2001). “Reimagining the differentiation and integration of work for sustained product innovation.” <i>Organization Science</i>, Vol. 12, No. 5, 612-631.
17	Dow Jones & Company: Innovation in Print and Online (Tuck Case)	<ul style="list-style-type: none"> • <i>The Other Side</i>, Chapters 4 and 5 • Kathleen M. Eisenhardt and Jeffrey A. Martin, “Dynamic Capabilities: What Are They?” <i>Strategic Management Journal</i> 21 (2000): 1105–1121
18	Thomson Corporation in the Legal Publishing Market (Tuck Case)	<ul style="list-style-type: none"> • <i>The Other Side</i>, Chapters 6 and 7 • Fast Company, “What’s so Good About Business?” • Vijay Govindarajan and Chris Trimble, “Stop the Innovation Wars,” <i>Harvard Business Review</i>, July 2010.
Final Exam (In-Class, Closed Book)		

Case Discussion Questions

Continuous Process Improvement at Deere & Company

Deere's management team and union representatives partnered to build a system for continuous process improvement from scratch. The case illustrates specific techniques that worked for Deere to generate ideas for improvement and to motivate front line workers to act. The case provides an ideal backdrop for discussing the Innovation = Ideas + Motivation model and its limitations.

1. Does finding a speedier way to pull a protective sleeve over a rubber hose really "count" as innovation?
2. What roles did the CI GROW team take on? Given that the whole idea is to push innovation to the front lines, is the CI GROW team a sensible part of Deere's approach?
3. What roles did the JD GROW team take on? Given that the whole idea is to push innovation to the front lines, is the JD GROW team a sensible part of Deere's approach? What does the role of the JD GROW team tell us about the limitations of the straightforward "Ideas + Motivation" approach?
4. How did Deere motivate its front line workers to pursue continuous improvement projects? What were the specific carrots and sticks? Could Deere's approach be implemented in other companies?
5. According to the case "Any completed project is considered a success" regardless of whether or not it reached a successful outcome. What do you think of this?
6. Deere tried to set goals so that at least half of the teams hit at least three of their four goals each quarter. What do you think of this? Would this kind of success rate be acceptable in ongoing operations?
7. Deere actively downplayed competition between factories. Why?
8. Deere required that every natural work group complete at least four CI projects per quarter. What is the message? What do you think? Is the standard that everyone must "exert minimum effort" in ongoing operations?
9. What have you seen in your own company that is similar / different to what Deere did? What works?
10. Does this case illustrate any conflict between innovation and ongoing operations? How?
11. Why did Deere have to adjust its expectations for continuous improvement during busy seasons?
12. How can managers determine whether they have created the ideal amount of "slack time" in their companies?

13. Google has gained a lot of recognition for allowing its engineers to spend up to 20% of their time each quarter working on projects of their own design, and on their own initiative. Imagine that your boss is contemplating adopting the same policy, and has asked for your advice. Outline the costs, benefits, and limitations of this approach as you see it.

Case Discussion Questions

Toyota: Decoding the DNA of the Toyota Production System

This article can be treated much like a case, and follows the “Continuous Process Improvement at Deere & Company” case very nicely. It shows a similar approach, augmented in a critical way. Toyota has created an environment in which it is possible even for front-line workers to run disciplined experiments to improve operations.

1. How does Toyota motivate its front-line employees to innovate?
2. What seemed remarkable about Toyota, as it relates to innovation? What do they do that Deere did not?
3. Toyota goes to great lengths to script every step in its production processes. How can this be consistent with innovation?
4. How is Toyota’s effort to create a “community of scientists” tied to innovation?
5. How did Toyota create an environment that favored disciplined experimentation?
6. What is the supervisor’s role when a front-line employee suggests an improvement?
7. Explain the logic of creating small cells and multiple parallel production lines, given that larger cells would lead to more efficient inventory management?
8. Why does Toyota work so hard to create clear pathways between internal customers and internal suppliers?

Case Discussion Questions

Infosys: Maintaining an Edge

Usually, strong case studies for teaching students about innovation focus on a single innovation initiative. This one, however, is a very solid case for discussing how higher-level organizational design choices can either contribute to or hinder innovation. Question 7-10 are opportunities to start hinting at the needs for special kinds of teams and special kinds of plans, though later cases are better for formally introducing these ideas.

1. One of Infosys's core values is *humility*. How can *humility* be good for innovation? Wouldn't it be better to encourage brash, bold, out-of-the-box thinking?
2. What are Infosys's other core values? How is each conducive to or not conducive to innovation? (Discuss: openness, meritocracy, learning, imagination, execution, speed.)
3. What values are NOT here that show up typically as core values in other companies?
4. People and organization. A) hire the best, b) put the best of the best on new services, c) organize in small autonomous teams (as much the nature of the industry than anything, but conducive to innovation.)
5. What incentives has Infosys created that support innovation? Which do you think matter most? (Consider: Awards, recognition, project level bonuses.)
6. Would you characterize Infosys as ambitious? Connection to innovation?
7. Discuss Infosys's planning process. How does it encourage or discourage innovation? Be sure to discuss: client councils, voices of youth, 5 year plan that questions all of the assumptions, closed "learning loops," PSPD, distinct metrics for new services.
8. What role can a group like SETLabs or the "solutions groups" / Centers of Excellence in each business unit take on with respect to innovation? What do you think of the ways these are set up? What do you think of their charters?
9. Why did Infosys need to create ECUs? How can an ECU contribute to innovation? Should ECUs be able to take their innovation directly to clients? Why create interlocking sales targets? Why double count revenues?
10. In general, what can you do with a Dedicated Team for innovation that you can't do within the existing organization?

Case Discussion Questions Improving Productivity at Infosys

The early pages in this case provide an additional opportunity to reinforce the lessons from the earlier Deere and Toyota cases, this time in a services environment. Then, there are two short stories about specific innovation initiatives. The RDT story does a nice job of illustrating the outer limits of the Innovation = Ideas + Motivation model. The InFlux story is a good one for surfacing the difference between *innovation* and *change*. (Our definition: An innovation initiative is an *experiment* that affects a small subset of an organization. A change effort seeks widespread adoption within an organization of something new but clearly beneficial.)

1. Describe Infosys's method for seeking productivity improvements. Be sure to cover: well-defined formal work processes, encouragement to depart from those processes in a controlled fashion, stretch goals, individual empowerment, rapid approvals.
2. How is this approach similar to Toyota's?
3. Factory floor experiments at Toyota might start generating results within minutes. At Infosys, however, the experiment is a project that might last months. What are the implications for learning from disciplined experiments?
4. Why does Infosys employ a staff that focuses only on analyzing results from improvement efforts?
5. Why does Infosys resist the habit of quickly specifying processes for new services?
6. Describe Infosys's knowledge management systems. What is their purpose?
7. **RDT:** What resources were required to get the RDT project to completion? What dedicated resources were available?
8. **RDT:** What was the nature of the personal risk involved for the innovation leader? Would you have taken the same risk? How many Infosys leaders would take the risk?
9. **RDT:** Do you think the quality control team at Infosys was fully aware of what the innovation leader was up to?

10. **RDT:** What lessons should Infosys draw from the RDT success story? How could the company generate more such success stories?
11. When does it make sense to create a dedicated team for an innovation effort?
12. **InFlux:** What resources were required to get this project to completion? Where did they come from?
13. **InFlux:** Relatively early in this story, InFlux proves itself to the satisfaction of Infosys's senior leaders. Yet, the story is hardly over at that point. Why?
14. **InFlux:** What forms of resistance did InFlux encounter?
15. **InFlux:** Infosys never mandated the use of InFlux. Why? Do you agree?

Case Discussion Questions

E-Business at Cisco

The setting of this case — one of the hottest internet companies during the heart of the dot-com boom — is interesting in and of itself. Cisco was a leading edge “e-business” at the time. The company tried to shift as many of its business processes online as it could — long before you could buy software from Oracle or PeopleSoft or SAP to do it for you. This case looks at the organizational principles that guided Cisco in this effort.

1. Do you think Cisco would have been a fun place to work in the late 1990s? Why or why not?
2. How did Cisco get to and remain on the cutting edge of e-business innovation?
3. What universal principles did Cisco establish as it pursued its e-business strategy? Did these constraints help or hinder their innovation efforts?
4. Who was empowered to fund e-business innovation efforts? What does “client funded model” mean?
5. How did Cisco ensure that the best e-business ideas spread throughout the company?
6. Who did the head of IT report to? How did this shape Cisco’s e-business efforts?
7. What metrics did Cisco emphasize? Why?
8. Describe Cisco’s culture? What elements of it were consistent with innovation? Contrary to it?
9. Can other companies replicate Cisco’s success? Why or why not? Could other companies assemble the same technical expertise for e-business innovation? The same emphasis on customer satisfaction? The ability to build its business systems from the ground up? Its degree of power and influence in the value chain?
10. What other forms of innovation, besides e-business innovation, are important to Cisco? How is or how should the company pursue these other forms of innovation?

Case Discussion Questions

The John Deere 8030 Tractor

This is the case that I use to introduce Model 2: Innovation = Ideas + Process. The basic notion of this model is that you can treat innovation like any other business process. You can script it, allow people to specialize, make the process specific, routine, and efficient. In other words, you can create an “innovation factory” and just churn out the innovations one after the other.

Deere takes a Model 2 approach to designing its top-of-the-line tractors for large scale agriculture. The company is very proud of its approach, and even has a full-time staff dedicated to nothing more than measuring and improving the process.

The case discussion should focus on the strengths of this approach, and, more critically, its limitations. It is generally helpful to point out, right away, that there are multiple distinct innovation stories within this case: the 8030 tractor, the 8030 engine, the 8000 tractor, the TDP, and the long-term evolution of the PDP.

1. What are the most notable features of Deere’s product development process (PDP)?
2. How does Deere inject customer insight into the early stages of the PDP? Do you see any limitations to their approach?
3. How does Deere control the risks that it takes in the PDP? Do you agree with the approach?
4. What is the one area in which Deere really pushed the outer limits of their technology, and the outer limits in the PDP, when designing the 8030? What was the result? How else might it have turned out? Was the risk advisable?
5. How does Deere’s brand attributes shape its innovation efforts?
6. The PDP is guided by extensive documentation – “over one month’s reading.” Is this advisable? Why or why not?
7. Engineers are expected to be on plan, on budget, and on schedule, and feel the heat of accountability if they are not. How do you imagine that this affects innovation?
8. The 8030 effort was led by executives with deep industry experience. Advantages? Disadvantages?
9. The engineers that worked on the 8030 have narrow specialties. Advantages? Disadvantages?
10. Do you think that the engineers that built the 8030 also could have built a locomotive? A lawnmower? A sportscar? A grandfather clock? To what extent would they have to be (re)organized to do so? Would the PDP be an asset or a liability?

11. What was different about the effort to build the 8000 tractor, both organizationally and in terms of the tractor itself?
12. Why does Deere also have a technology development process (TDP)? How is it different from the PDP?
13. How has the PDP evolved since 1990?
14. Do you view the PDP as an asset to Deere & Company or a liability? What are its limitations?

Case Discussion Questions

Joline Godfrey at Polaroid

Companies tend to struggle beyond the limits of Model 1 and Model 2. Unfortunately, the dominant model for making innovation happen beyond these limits is to put the entire effort on the shoulders of one person — an “innovation hero” — who is willing to do whatever it takes to make innovation happen. This may include breaking the rules, working underground, building conspiracies, etc.

It’s a silly, bankrupt notion for making innovation happen, yet, it persists. I use this case to show exactly why “one person against the system” is such a long-odds bet. There *must* be a better model.

This case study, which can be found in the Harvard Case Library, was written for an entirely different purpose: to illustrate power dynamics in large organizations. Nonetheless, its use as an innovation case study is obvious. The details in the case study are unusually vivid and concrete.

1. Did Ms. Godfrey deserve her ultimate fate?
2. What kind of example does Dr. Land set for making innovation happen?
3. What is Polaroid good at? Why do they have a history of success for so long?
4. What do you make of Polaroid as an environment for innovating? What kinds of innovation is the company good at?
5. What changed after the downsizing? What happened to the availability of slack resources and free time?
6. Why do the words “rebel” and “conspiracy” keep coming up? Is this healthy?
7. Is Polaroid a hierarchical environment? Political? Is there truly room to play in the sand?
8. What early career experiences shaped Godfrey?
9. How did her relationship with Rebelsky change her?
10. How did her relationship with Sudbey change her?
11. What do you think Godfrey learned from the SPECTRA project?
12. What do you think of Sudbey’s choice to fund Godfrey for 6 months?
13. Why does Sudbey want to get O’Neal involved? A good move?
14. Why does O’Neal insist that Godfrey continue to report to Sudbey?
15. How does O’Neal’s involvement affect the project?

16. Were significant resources committed to developing the idea?
17. How does Godfrey build the team to pursue her venture? Do you think this is a good approach?
18. What were the “10 people who worked day and night” doing? Why?
19. How did the team know if they were making progress?
20. How would you evaluate Godfrey’s use of resources to this point? If you had to put a dollar value on the resources she had consumed by the Drumlin Farms event, what would it be? What expectations are reasonable for this expenditure?
21. What was the significance of the Drumlin Farms event?
22. How do O’Neal and other senior execs think about whether they want to support the project? Are they wrong to refuse to lend support to an idea that doesn’t directly support their core business mission?
23. Why does Godfrey take such a strong stand against O’Neal? What do you think of the way she responded?
24. Why was Joline resistant to the involvement of others?
25. What do you make of the fact that Godfrey views going to the top to get further support as a “last resort?”
26. In giving Godfrey more time to develop her idea, did the CEO make a good choice?
27. Evaluate Booth (president) and McCune (CEO) and their involvement in the venture. What were their driving ambitions? Motivations? Why did they give Godfrey 1 year of support? What was their vision for Polaroid’s future?
28. How do you evaluate the sudden change in target market from vacationers to corporations?
29. How do you evaluate the decision to hire Jane Lytle to bring more financial expertise into the team?
30. If you were the CEO and you were absolutely committed to giving Godfrey’s idea the best possible chance at success, how would you proceed? What role would you give Godfrey?

Case Discussion Questions How Stella Saved the Farm

This “case” is actually a parable. *How Stella Saved the Farm* will be published by St. Martin’s Press no later than Spring 2013. Until then, advance copies are available at www.howstellasavedthefarm.com.

Stella is a simple story about a farm in trouble, and how it innovates to get out of trouble. It is a quick and engaging read that introduces Model 3: Innovation = Ideas + Leaders + Team + Plan.

One of *Stella*’s strengths is its ability to help readers identify and empathize with several different perspectives on the Model 3 innovation challenge within large organizations.

The parable practically teaches itself. I use the exercise outlined below to facilitate the process of students teaching each other. Each student “owns” one character, and retells the story from that person’s perspective.

Preparation:

1. Read “How Stella Saved the Farm” once for enjoyment.
2. “Adopt” a character or characters in the story. See your assigned character(s) below.
3. Read “How Stella Saved the Farm” a second time. This time, focus in particular on your character’s experience.

Group	Character(s)
1	Deirdre
2	Bull
3	Mav
4	Stella, the Sheep, and the Alpaca
5	Maisie and Andrea
6	Rambo and Einstein

Small Group Meetings:

Be prepared to:

1. Briefly re-tell the story from your character’s perspective. In which scenes did your character appear? What was happening in the story?
2. What did your character do well? Not so well?
3. What were your character’s attitudes, pressures, and emotions as the story progressed? Your retelling should help your classmates empathize with your character(s).
4. By the end of the story, what had your character(s) learned about innovation?
5. Make the best argument you can that your character(s) is the one who saved the farm.

2nd Small Group Meetings

For the second small group meetings, we mix up the groups such that every group includes at least one expert on every character. Each person takes 5 minutes to re-tell the story from their character's perspective. Other students are expected to listen, ask questions, and focus on understanding the story from each perspective. The overall goal is both to intellectually understand each person's role in moving an innovation initiative and to empathize with the pressures on each.

Full Classroom Discussion

A subsequent full group meeting might discuss any of the discussion questions in the back of the book. Not to be missed:

1. Is Windsor farms an innovative company? What has happened to it over the years?
2. How did the animals react to the Big Idea Hunt?
3. Describe the pros and cons of taking the job from Mav's perspective.
4. In the Chapter 9, why can't Rambo help Mav?
5. Is Mav getting special treatment? Unfair treatment?
6. Why is it possible to combine animal care but not yarn making?
7. What does Andrea accomplish? How do Max, Matt, and Maisie feel about Andrea?
8. Why do the sheep and alpaca get in fights?
9. If Rambo and Mav were better leaders, could they navigate the conflicts between sheep and alpaca and between innovation and ongoing operations without help from the top?
10. Can real companies find someone like Einstein?
11. What is the logic behind "Learning first, profits second?"
12. Who saved the farm?

Case Discussion Questions

Dow Jones: Innovation in Print and Online

This case is deceptively complex. To analyze it sensibly, it is critical to disentangle *change* versus *innovation*. A *change initiative* is undertaken with an endpoint in mind that is clearly desirable and achievable. Its intent is to bring about change in ongoing operations. That is, the explicit and deliberate purpose is to *improve* the Performance Engine. An *innovation initiative* is an *experiment* with an uncertain outcome. It is undertaken in a way that is intended to *minimize* its impact on the Performance Engine. A successful innovation initiative might quite logically lead to a change initiative. “We tried it. It works. Now we want to implement it throughout the company.”

Rich Zannino is leading a major change initiative — bringing print and online operations closer together. Part of his rationale for doing so is that it will lead naturally to innovation initiatives. It leads to several, including the two described in the B and C cases. The innovation in the B case, which focuses on subscription marketing, is a quick victory that leads directly into a change initiative — fully integrating print and online marketing. The C case, DJIS, is a multi-year innovation initiative that requires a special kind of team and a special kind of plan. Note that even a process innovation (joint sales) can require a Model 3 approach.

Students will want to know that this case study was written just prior News Corp’s acquisition of Dow Jones.

1. What are Zannino’s goals in transforming the company? What is the impact on journalists? What are their fears?
2. Why are so many print-online conflicts bubbling up to the top?
3. What specific major organizational changes does Zannino make? Do these seem like good changes? How aggressive are they?
4. What do you see as the specific benefits of Zannino’s change in the organizational structure?
5. How would you characterize Zannino’s people changes? Who are Zannino’s “diamonds in the rough?”
6. How does Zannino change the company’s metrics? Performance expectations?
7. When in the cases (A, B, C) does it read like a *change* story, and when does it read more like an *innovation* story?
8. What is the innovation agenda? What are the experiments? How would you describe these projects? How big are they? How transformative? How are they going to get done? How are they being prioritized?

9. Does the decentralized approach to innovation make sense? How far down into an organization can you push innovation? Will there be enough resources at the functional level to fund every innovation initiative? How might Model 1, 2, and 3 play into this effort?

Subscription Marketing (B-case)?

1. At what point in this case were the protagonists convinced that integrated marketing was a good idea? What came next?
2. Did you agree with DJ analysis that the initial joint subscription offer was an unqualified success?
3. How would you characterize the degree of difficulty of the experiment / the innovation initiative?
4. How would you characterize the degree of difficulty of the change initiative that followed? What was most difficult about it?

DJIS

10. How far could DJIS get on a “grass roots” / Model 1 basis?
11. Could the performance engine execute the DJIS project? Why / why not?
12. Why does this *process innovation* require a Dedicated Team? Doesn't it seem like an overly heavy-duty organizational approach?
13. How did Goldberg go about building the dedicated team? To what extent does it resemble an advertising agency?
14. How well did Goldberg do managing the relationship with the WSJ sales force? Was he right to pay such close attention to it? Did he do the right things? Which of his actions do you suspect were most important?
15. What is the end game for DJIS?
16. How was the print-online council different from DJIS? Did it require a Dedicated Team? Why or why not?

Case Discussion Questions Hospital Equipment Corporation

This case, written by Clay Christensen, is supported by an excellent teaching note which makes it easy to extend the scope of the case. For purposes of teaching with *The Other Side of Innovation*, this is a terrific case for sharpening the potential gray areas between Model 2 and Model 3 innovation.

1. What is HEC good at? Why do you say so?
2. To what extent do you see Model 1 in this case? Model 2? Model 3? Lone heroes fighting the system (see Polaroid case, above)?
3. What are the salient features of HEC's approach to developing products?
4. How scripted is HEC's process for new product development? How narrowly do its engineers specialize?
5. Steele and Gorman, at the end, seem to be in disagreement about whether the degree of informality in the innovation process is an asset or a liability. What do you think?
6. What happens in a group of people that do something over and over again, even in the absence of a set of formally designed processes?
7. What will happen to the NPD team as it grows?
8. The team managed to get the headboard designed, but not the table. Why? Was the table was just too complex for them?
9. There are "3 major projects" and "15 or so minor projects" in process at any one time. How does the HEC team figure out the capacity of their product development team? What happens when they are pushed beyond capacity? Which are the most likely products to be prioritized and why? Which are the least?

Case Discussion Questions Corning Microarray Technologies

Corning has a loose Model 2 framework for developing new products, but its innovation in microarray technologies does not really fit the framework. The opportunity also carries far greater uncertainties than most of Corning's product development efforts. The story shows struggles, corrective actions, and an unexpected ending. It is a terrific case for discussing why a special kind of team and a special kind of plan are so important.

1. How did you react when you learned that the Corning Microarray Technologies (CMT) venture was discontinued? Did Mr. Ford's explanation for his decision seem reasonable?
2. What business is Corning Technologies in? How is CMT different? Is microarrays a reasonable growth opportunity for Corning? How well does it fit the "Corning Business Model?"
3. Things are definitely NOT going well by the middle of 1999. Leaders are fighting with each other. Most everyone involved is unhappy. What happened?
4. Why do you think Corning is so dedicated to high quality standards – to levels that the molecular biologists find unnecessary, even bizarre? Who do you think is right? Who seems to prevail? Why?
5. The team seemed to struggle with troubleshooting problems with DNA supply and difficulties with the manufacturing process. How do you interpret this?
6. How can Corning bring about a shift in power from materials scientists to molecular biologists? Who will resist this shift and why? Should Corning effect this shift in power throughout the company?
7. Why do you suppose Fraser (research), Hamel (development) and Woodbury (business unit) are the leaders selected to run this business?
8. What is the relevance of the five-stage innovation model in this story? How does Corning's 5-stage innovation model compare with Deere's process for building the 8030 tractor?
9. What do you think of the structure of three different heads of this business reporting to three different people (research, development, business unit)? Does it make sense for this venture?
10. How did the management team seem to react to missed milestones? Why?
11. How do you interpret the company's struggle to integrate the sales forces?
12. How does the microarrays team mirror the rest of Corning Technologies?

13. Why does Corning have such high expectations for Corning Microarray Technologies? What are the specific forces that drive expectations up? Which are related directly to the microarray market and which are not?
14. What sort of analysis accompanied the choice of number of scientists to hire when initially building the CMT team? If forecasts for revenues can be off by 10x, how far off will budget estimates be?
15. What observation would you make about the quote from Scott Lewis: “It’s hard to look retrospectively when planning new products ... you have to have a short memory because you know you are going to fail a lot?”
16. What do you make of Mr. Allen’s distinction between a project manager and a program manager? Does it make sense?
17. Was Greg Brown a good choice for GM?
18. What is the significance of resetting expectations?
19. What is the significance of changing the reporting structure?
20. What is the significance of hiring William Hall? (and others)
21. Why was it important to Brown to move as much of the team as possible into one location – Corning, NY? What do you imagine were the benefits?
22. What were the critical unknowns that this venture faced? Which had been resolved by the end of the case?
23. How does the Corning’s telecom business affect CMT?
24. Is there anything that Greg Brown could have done that would have made it less likely that CMT would be shut down when the telecom business collapsed?
25. Do you think Mr. Brown deserved a second chance?

Case Discussion Questions New York Times Digital

This three-phase story is quite instructive for reinforcing the logic of the design of a special kind of team — a *partnership* between a Dedicated Team and a Shared Staff. It is a three phase story. In the first phase, NYTD's Dedicated Team is built too much like the newspaper organization. It operates like a "Little Performance Engine." In the second phase, the Dedicated Team is much more effective, but the partnership is strained. In the final phase, in the midst of these strains and a severe budget crunch, the company has to decide whether to reintegrate New York Times Digital with the newspaper. Epilog: The company does *not* integrate. Instead, it creates several corporate level task forces which are charged with getting directly involved to create a healthier partnership between the two entities. It works, and NYTD reaches profitability in 2002.

1. As of September 2001, do you believe that NYTD should be reintegrated with core newspaper operations? If not, what changes would you advocate for?
2. How is NYTD performing as of Sept 2001? The stated reason for reintegration is cost reduction. Is that an appropriate goal at this time in the life of NYTD?
3. For a while, NYTD was part of the newspaper, and then for a while it was a separate entity. Which do you think worked better?
4. What frustrations was the NYTD team feeling in the early years? What opportunities did the company miss?
5. What were the positive and negative results of the changes that were made in 1999?
6. By 2000, most of New York Times Digital's staff had come from outside the company. What were the differences between NYTD's staff and the newspaper staff? Do you think this is appropriate?
7. How did Martin Nisenholtz reshape NYTD in 1999 and 2000? Along what specific dimensions? How would you characterize the overall magnitude of change? Did he go too far?
8. Which function do you imagine was dominant within the New York Times organization in 1995? (That is, which group of people had the most power?) Which function *should* have the most power within NYTD? Why do you think so? How can such a power shift come about?
9. What are the specific sources of tension between the newspaper and NYTD? What are some possible techniques that the company could use to overcome these tensions?
10. Do you think NYTD took a disciplined approach to testing new features in 1999 and 2000? Why or why not?

11. Can all of the initial problems and the results of the changes be tied to the reporting structure? Reintroduce organization framework.
12. In what ways do NYTD and the newspaper need to collaborate?
13. Where NYTD and the newspaper interact, which side should have more power?
14. At each point of interaction, what can go right? What can go wrong?
15. How is NYTD performing as of the September 2011 meeting?

Case Discussion Questions

Infosys Consulting

This is a straightforward case study that shows a company taking exactly the steps they *should* take when establishing a new venture with a special kind of team. I sometimes use this case study for a mid-term exam, and regard it a diagnostic to identify students that are falling dangerously behind. Most students have little trouble seeing that this case matches up very well with the principles outlined in Part I of *The Other Side of Innovation*.

1. What problems did Steve Pratt run into when he was with Deloitte?
2. Why did the senior management team at Infosys turn to outsiders to build Infosys Consulting?
3. Why does the senior management team give so much latitude to Steve Pratt?
4. In what ways does Infosys Consulting benefit from being a part of Infosys? Is this a powerful enough reason for Pratt to want to be a part of Infosys or would he be better served starting a new company from scratch?
5. What are the fundamental differences between Infosys and Infosys Consulting?
6. Is the Global Delivery Model relevant to Infosys Consulting? How much of Infosys Consulting's work can be shifted to India?
7. What is Infosys Consulting's hiring strategy? Should Infosys Consulting have taken greater advantage of the ability to hire existing Infosys employees into its new unit? It certainly would have been more expedient to do so. And, both Infosys and Infosys Consulting are professional services businesses.
8. How are project teams at Infosys Consulting staffed? How does this differ from Infosys norms?
9. Where are there tensions between Infosys and Infosys Consulting? Why do they exist? What is Steve Pratt's approach to dealing with these tensions?
10. Why does Infosys double count revenues from Infosys Consulting, crediting both an Infosys business unit and Infosys Consulting on internal reports?
11. How clear are the respective roles of Infosys and Infosys Consulting? Does each know what to expect from the other?
12. How far should Pratt go in creating a distinct cultural identity for Infosys Consulting? What would be the consequences of going too far?
13. What pressures does Steve Pratt feel when he has to report operating results alongside other Infosys business unit heads?

14. How does Infosys apply distinct metrics and standards of performance to Infosys Consulting?
15. What is the governance model for Infosys Consulting? Does it make sense for such a small unit to take up so much senior management attention?

Case Discussion Questions

Universitas 21 Global

This case study presents a high-risk, high-growth-potential venture very early in its life. As there are no outcomes to discuss yet, it is difficult to have data-based arguments about the quality of decision making. That said, this is a company that has followed the model for a special kind of team, and it can be used to reinforce the basic model. Note that this particular innovation initiative is a joint venture. When two organizations combine forces to form a special team, it is much more likely to develop a custom organizational model that is well suited to its specific business challenge, rather than falling into the “Little Performance Engine” trap highlighted in Chapter 2 of *The Other Side of Innovation*.

1. What surprised you about the way that Thomson Learning and Universitas 21 built Universitas 21 Global? What would you would have done differently? Why?
2. Critique U21G’s staffing approach.
3. Did the board make a good choice in hiring Mukesh Aghi? Don Babcock? Did they establish sensible hiring criteria?
4. How would you describe the culture that Mr. Aghi has created at U21G? Is it differentiated from that of the parent organizations in appropriate ways?
5. How will U21G’s decision to outsource as much as possible affect them?
6. What skills, assets, or capabilities will U21G be able to borrow from its parent companies? What challenges will the company face in making this borrowing effective?
7. Is the senior management team in position to facilitate borrowing?
8. The Universities seemed to value the financial discipline that Thomson Learning could bring to the venture. What sort of financial discipline is Thomson likely to impose?
9. What critical unknowns does this venture face?
10. Evaluate the Thomson approach to evaluating U21G’s performance.
11. How might their approach to hiring faculty affect their ability to learn as this business experiment moves forward?

Case Discussion Questions Dartmouth Hitchcock Spine Center

Health care is an industry with plenty of potential for innovation in the way services are delivered. One possibility is organizing doctors, nurses, and other health care professionals by *medical condition* rather than by *medical specialty*. This makes much more sense from the patient's perspective. Before moving onto the specifics of this case, it makes sense to discuss the potential pros and cons of such an approach. (Questions 1-14 below.)

The Spine Center at Dartmouth Hitchcock Medical Center is one initiative that illustrates the general idea. Special teams focused on a specific medical condition are also a natural application for Model 3 innovation.

1. Health care in the United States has traditionally been organized by medical specialty (orthopedics, neurosurgery, etc). As such, who are a doctor's primary colleagues?
2. What changes when health care is organized by medical condition instead (back pain, diabetes, etc)? Who are a doctor's primary colleagues?
3. What are the advantages of organizing by medical condition?
4. How does organizing by medical condition improve coordination of care?
5. How might it improve diagnosis? Treatment decisions?
6. How might it improve the ability to evaluate outcomes for different treatment options?
7. How might it be more convenient for patients? How might it improve scheduling?
8. How does it change incentives for health care providers?
9. How does it change the likelihood of patients getting over-treated?
10. How does it change a doctor's sense of self?
11. How does it change how a doctor perceives what he or she is accountable for?
12. What reimbursement model makes most sense, where healthcare is organized by medical condition?
13. How would you evaluate whether a certain medical condition is suitable this organizational form? (The most suitable have a distinct and easy to define medical condition that often appears alone or can be treated separately from other conditions. Treatment often involves multiple experts.)
14. What would happen to patients with multiple medical conditions?

15. How is the Spine Center at DHMC staffed? Who is fully dedicated? Who is part time (and therefore on the shared staff, as defined in *The Other Side of Innovation*.)
16. Would you recommend any changes?
17. How would the behavior of doctors change if you made them full-time employees of the Spine Center?
18. Do you imagine that most neurologists or orthopedic spine surgeons would *want* to work full time for the Spine Center? Why or why not?
19. After Dr. Abdu, which employees / categories of employees have the most influence *within* the Spine Center? Does this make sense to you?
20. What efforts have been made to *grow* the Spine Center's business? Could they be more aggressive? What might they look like?
21. Why not have a professional manager, as opposed to a professional doctor, running the spine center, with a primary focus on growth?
22. How does the Spine Center benefit from being a part of DHMC? (Reputation? Referral Stream? IT Systems and Electronic Health Records? Direct connection to latest academic research? Ability to treat other conditions?)
23. What are the potential conflicts of interest between the goals of the Spine Center and those of DHMC?
24. Has the Spine Center proven itself? Medically? Financially?
25. What is the right way to measure the financial performance of the spine center?
26. Could the Spine Center negotiate a different kind of reimbursement model with insurers? One that didn't pay by procedure?
27. Can every small community with its own hospital afford a special unit dedicated to spine care?

Case Discussion Questions

Analog Devices, Inc: Maintaining an Edge

This is a complex case. It is best to start by ensuring that the class understands the ADI's legacy business model and organizational model. (Questions 1-9.)

Then, tackle its diversification efforts, which started in the 1990s. This case is ideal for discussing two diversification efforts in particular: ADI's move into digital signal processing, and the challenge of going from selling "chips" to selling "systems of chips."

The Model 3 special-kind-of-team framework is very applicable to both efforts.

1. What is ADI's foundational business model?
2. How is ADI structured?
3. Which is the most powerful function within ADI?
4. How does ADI recruit?
5. What are the common metrics that ADI applies to all business units and products?
6. How does ADI determine how rapidly it should grow its sales budget and its R&D budget?
7. What are the central values in ADI's culture?
8. What is the nature of the ADI's sales process?
9. What is the average size of a product development effort? How many does ADI tackle each year?
10. How did the DSP business challenge ADI organizationally?
11. Why was it hard for the company to hire DSP experts?
12. How does the DSP sales process differ from that of ADI's traditional business?
13. How do customer expectations differ?
14. How is the risk-reward profile of a DSP product development effort compare to that of a traditional ADI product development effort?
15. Why might a sales person want to shift time and energy to selling DSPs?
16. How predictable is revenue from a DSP offering?

17. Why is it organizationally challenging for ADI to pursue a system design effort?
18. How might engineers who are accustomed to a great deal of independence react to the need for greater teamwork?
19. Why are some business units trying to hire into positions that “look like sales but are called something else?”
20. How is the process of selling systems different from selling chips?
21. Evaluate the way ADI has built its cellphone organization. Do you see possible improvements?
22. How do the priorities of ADI’s cellphone customers differ from the priorities of ADI’s traditional customers?
23. As the emphasis on systems solutions rises, should ADI broadly reorganize around customer segments (instead of product categories)? Should the company shift power from engineers to sales people?
24. Would you say ADI had a “culture of innovation” in 1990? How about in 2005?

Case Discussion Questions

Hasbro Interactive

This is a terrific case study for introducing the necessity of using a special kind of plan to support learning through disciplined experimentation. The case shows numerous forces within real organizations that *get in the way* of learning.

Questions 1-4 should be discussed quickly. They are good review questions; they relate to **team** not **plan**.

1. Was Tom Dusenberry a good selection to lead Hasbro Interactive? If no, where would you have looked to find a better candidate?
2. What are the similarities and differences between the Hasbro business model and the Hasbro Interactive business model?
3. What do you think of Hasbro Interactive's organizational model? Does it make sense to report to the board? Was Mr. Dusenberry given too much authority?
4. Should Hasbro have had more authority over how Hasbro Interactive used Hasbro brands?
5. Hasbro Interactive felt that they were succeeding at the end of 1997. What do you think? What had they proven?
6. Did Hasbro try to expand too aggressively in 1998 and 1999?
7. What conclusions did Hasbro Interactive draw from the strong results at the end of 1998? What conclusions *should* have been drawn? What kind of analysis might have been most helpful?
8. Should Hasbro have been touting the potential of Hasbro Interactive to Wall Street analysts?
9. What conclusions could be drawn from Hasbro Interactive's \$74M loss in 1999?
10. There was a sharply negative perception of Hasbro Interactive's performance by the end of 1999. What was it based upon? Was it justified?
11. How did Mr. Baum change the way Hasbro was managed? How did it affect Hasbro Interactive?
12. What do you think it was like for Mr. Dusenberry to sit in business performance review meetings with the other business unit heads, reporting performance on common "value drivers?"

13. What is the significance of the \$1B aspiration? Just talk? How did it affect behavior?
14. How did (and how should have) Hasbro respond to the slew of bad news about Hasbro Interactive in 1999? Consider: high product returns, missed product development deadlines, unexpected costs, falling prices, and poor financial information.
15. Why does Mr. Dusenberry want to capitalize his product development expenses? Is it a reasonable argument? How might, and how should, the accounting change affect decision making?
16. What do you think of Mr. Verrecchia's decision to jettison Hasbro Interactive?
17. Was expansion to interactive games a wise growth strategy for Hasbro? If not, what would be a better one? How should Hasbro assess the threat of electronic gaming to its core business?
18. Is the licensing approach the best possible option for Hasbro's continued activities in electronic games?
19. Did Tom Dusenberry deserve his fate?
20. What do you make of the Games.com episode in this story?
21. The case study ends with several perspectives on the key lessons learned from the Hasbro Interactive experience. Which do you think are valuable lessons learned and which do you think are not?

Case Discussion Questions

Analog Devices, Inc: Microelectromechanical Systems

This case is a multi-faceted 15-year saga about a new semiconductor technology and the efforts of Analog Devices, Inc (ADI) to bring it to market. The story can be broken into several phases marked by leadership changes, and the case discussion can tackle one phase at a time.

At key decision points in the story, ADI must assess the progress of the initiative. These are worth dedicating substantially class time to. What are the forces, both rational and irrational, that are affecting how well the company thinks the venture is coming along?

The case also show the critical roles that senior leaders must play in nurturing innovation initiatives.

ADI in General

1. What do you think of the overall environment for innovation at ADI?
2. What do you think of the mindset of shifting power from business leaders to engineers? What did you think of the Fellows program?

Early Idea Development

3. Where did the MEMS idea come from?
4. How far could the project get with a Model 1 approach?

MEMS Under Suttler

5. What opportunities did MEMS have to leverage ADI's assets? Did assigning MEMS to an existing division make sense?
6. How was the MEMS business model different from the ADI business model? What are the implications? What can the Performance Engine do? What must the Dedicated Team do?
7. What was the effect of Mr. Payne reporting to Mr. Suttler?
8. How did Payne come up with cost estimates for MEMS?
9. How do you evaluate the initial contract with Siemens?
10. What critical unknowns does the MEMS venture face at outset? What questions should MEMS managers have been asking to evaluate performance information? What did they ask?

MEMS Under Wiegold

11. Did it make sense to put Mr. Wiegold in charge of this business? Was T&IPD a good home for MEMS?
12. Was Wiegold's emphasis on quickly finding a path to profitability appropriate?
13. Why wasn't the quality crisis anticipated?
14. Why do the capacity crisis discussions revolve around comparisons of gross margin?
15. What was the significance of the "ADI business model?" How did it affect the way ADI executives judged the performance of the MEMS business?
16. Why were there such optimistic projections for non-automotive revenues? What effect did these projections have?
17. Why does Mr. Fishman support MEMS. Wise? Were there better uses of scarce resources?

MEMS Under Mr. Stata

18. Was it wise to move to Cambridge? Was it done at the right time? What do you think of the \$100M (!) expenditure to create the Cambridge facility?
19. Why did Mr. Fishman temper his energetic support for MEMS?
20. Why do you think that Mr. Stata quit attending operating meetings? Was this a reasonable choice?
21. Describe Mr. Stata's leadership style.
22. How would Mr. Stata have described the critical unknowns facing the venture?
23. What do you think of the decision to turn the division back to Mr. Wiegold?

MEMS Under Mr. Wiegold

24. Why did Mr. Wiegold hold R&D spending to 12% of revenues? Wise?
25. What is interesting about the MEMSIC episode?

Overall

26. What missteps does ADI make in building this business?
27. Discuss how the balance of available capital versus capital MEMS needed, or resource availability versus resources MEMS needed, affected this story.
28. What forces acted to reinforce the existing business model, rather than develop a new one? Evaluate senior leadership involvement over the course of the venture.
29. Did MEMS always have the right leader at the right time? Explain.
30. Evaluate the strengths and weaknesses of Richie Payne.
31. Was it necessary for Ray Stata to take over MEMS himself?
32. Was MEMS a sensible growth opportunity for ADI?
33. Does Ray Stata have justification for bragging about the MEMS business as of 2002?
34. Should this story be viewed as a success story or a failure story?

Case Discussion Questions
Thomson Corporation in the Legal Publishing Market
Expanding the Value Proposition

There is a lot going on in this case study. One technique I have used to get the discussion off to a good start is to ask students to work in small groups for 10-15 minutes and try to briefly summarize the story using the following terms: Change, Innovation Initiatives, Model 1, Model 2, Model 3, Before, After, Process Innovation, Product Innovation, Business Model Innovation.

Thomson's "Big X" process is particularly worthy of discussion, as it shows a very solid effort to set up a process for creating, approving, and reviewing plans for innovation initiatives.

1. Why did Thomson experience a growth stall? How did the company respond?
2. This company went from 0% growth to 7% organic growth in about 7 years. Do you regard this as a success story?
3. How would you assess the managerial degree of difficulty of the innovation initiatives presented in this story, compared to other case studies we've looked at?
4. Put yourself in the shoes of Steve Anderson.
 - a. How can he grow revenues at least 10% per year?
 - b. He basically had the right idea for Thomson's growth strategy 3 years before the company started to pursue it. What if he had been a more persuasive, more aggressive, more ambitious leader?
 - c. What is his life like? How does the product development organization operate?
 - d. He was later recognized as "the Father of Litigator." Is this well-deserved? What was his contribution?
5. What is Mike Wilens's change agenda? How does Mike Wilens's transformation create conditions that are more conducive to innovation?
6. Describe Thomson's innovation agenda.
7. Who is doing what on briefs? Who is on the Dedicated Team? Does this make sense?
8. Why is figuring out the capacity of IT, sales hard? What are the natural conflicts here?

9. Evaluate the Big X process.
 - a. Why create an entirely separate forum for planning big innovation projects?
 - b. Why put so much effort into planning if the ROI, at the end of the day, is fuzzy?
 - c. Does it make sense to have people feel as though they have so much of their personal credibility on the line when proposing innovation initiatives?
 - d. What accountabilities are reasonable?
 - e. Where are the big uncertainties, do you imagine? In actions or in outcomes?
 - f. Why TEN reviews per year? Too many? Not enough? What is the right number?
 - g. What do you make of the Mike Wilen's approach to negotiating performance targets for Big X projects? What do you think of the "stretch" process?
 - h. What is Brian Hall's outlook on evaluating the performance of innovation leaders?
 - i. What are the criticisms of the Big X process? Which are legitimate?

Case Discussion Questions OnStar: Not Your Father's General Motors

This multi-faceted case, available in the Harvard Case Library can be employed as a capstone case for a course or module focused on *The Other Side of Innovation*. There is an outstanding teaching note. The following questions focus on the key themes in *The Other Side of Innovation*.

1. How did the idea for this business come about?
2. What do you think of the market research that pointed GM towards safety and security?
3. Why do you suppose it took support from so high up to get a business plan written?
4. Why was this business delayed from 1993 to 1994?
5. On page 1 of the case, sales are described as “lackluster.” Why are the sales viewed as lackluster? On what basis?
6. There is a “constant internal struggle” over the allocation of engineers to OnStar versus core initiatives. How are these struggles likely to be resolved?
7. What do you think of the extensive mathematical modeling the company did to forecast the performance of this business?
8. What did Chet Huber make of it the models? What critical assumptions does Huber identify in the business plan?
9. Is Chet Huber the best choice to lead this business? What are his strengths and weaknesses?
10. Evaluate Huber’s leadership style. To what extent is he oriented to disciplined experimentation and rapid learning?
11. The team feels pressure to sell additional services to help cover subscriber acquisition costs. What is likely to happen to subscriber acquisition costs over time?
12. To what extent was the OnStar business shaped by the existing assumptions of the automotive business model?
13. What did you think of OnStar’s choice to outsource so much of the IT work? Why did the company make this choice? What made outsourcing particularly difficult? If someone wanted to launch a startup to compete with OnStar, would they outsource the IT work? Why or why not?
14. How well was OnStar able to leverage GM strengths? What did OnStar *need* to leverage? What did they *actually* leverage? Could a startup business compete with OnStar?

15. Factory installation represents a high-risk and very tough decision point. How would you shape a discussion about whether or not it was a good risk to take?
16. What do you make of Huber's analogy to synchronized swimming?
17. Does Huber need a more formal system for evaluating new ideas?

Case Discussion Questions

Hewlett Packard : The Flight of the Kitty Hawk

Like OnStar, this is multi-faceted case, available in the Harvard Case Library, that can be employed as a capstone case for a course or module focused on *The Other Side of Innovation*. Again, there is an outstanding teaching note. The following questions focus on the key themes in *The Other Side of Innovation*.

1. Who shaped ambitions for Kitty Hawk? How?
2. What are do you see as the positives and negatives of HP's innovation environment?
3. Where is the funding for this venture coming from? Is the funding sufficient?
4. There was resistance to the project from engineers focused on the more obvious next project, a next-generation disk drive similar to their current offerings. Can HP afford to do both?
5. Is Seymour a good selection for leading this venture?
6. Where do most of the staff come from for this venture? Evaluate.
7. Should this venture be located in Boise?
8. The criteria for hiring: "Can do" people. "Risk takers." "Quick thinkers." "Action oriented." What do you think?
9. Was it wise for the company to set up the Kitty Hawk team in its own location?
10. "I am going to build a small dumb cheap disk drive!" What do you think of this move? Will it help create a new culture? How powerful is such a statement in reshaping culture?
11. What does the KH team leverage from DMD? Should there have been more interaction between the two business units?
12. Spenner drafts a charter with very specific goals, such as break even within 36 months and \$100M in revenues two years after launch. First 1.3" drive to market. 35% Growth rate. Do these seem like good goals?
 - a. Do they emphasize the right measures?
 - b. Do they give you a sense for what is known versus unknown?
 - c. Do we know much about the product yet?

- d. Do we know much about the customer base yet?
 - e. So, what is the basis for these goals?
 - f. Do they matter?
 - g. Quote from case: “Although aggressive, Spenner’s charter did not appear to be out of reach.” On what basis? How could they possibly know?
13. What are the critical unknowns facing Kitty Hawk?
 14. Describe how the team went about finding the initial market target.
 15. The team conducted market research firm to confirm their target, but normal methods seem to go nowhere. Given that, how do you go about coming up with design specs?
 16. What was the input that came from Dayton electronics? How did it change the team’s direction? Are they still building a small, dumb, cheap, drive?
 17. The team takes a point of view that hand held computers with a specific market niche will take off. What do you think?
 18. How is the competition likely to affect this business? Flash? 1.8” drives?
 19. When the 1.8” drive hits the market, Seymour instills fear. “We traded everything to meet schedule.” Implications?
 20. The team arranges for 150K units per month with an outside supplier. Where does this number come from?
 21. Introduced on schedule w/great fanfare from cofounder. Why was this a double edged sword? What do you really want from your CEO? (This pushes expectations even higher, and makes it that much harder to question the plan. What you want from the top is recognition of unknowns, and some imposed discipline in resolving those unknowns quickly.)
 22. How should the KH team react to their losses in the PC market, or to the fact that the PDA market doesn’t develop as anticipated?
 23. Despite the setbacks, the team remains optimistic. “Prosperity always seemed right around the corner.” Justified? Why does this optimism persist?
 24. There were some completely unexpected customers, but volume was lower than expected. How should KH team react?

Aftermath and B-Case

25. "I don't think that the KH, as currently conceived, was ever going to pay off like we needed – but in the process of learning this lesson, we found where the real market was." Is this statement justifiable? What information about the \$50 market did they have in 1994 that they did not have in 1992?
26. The parent division has suffered from the transfer of engineers to Kitty Hawk. Reaction? Could HP have found the resources for KH without taking them away from DMD?
27. Seymour and White are promoted, and they are asked to work on a new next gen drive. Reaction?
28. "It was the most fun I ever had." Reaction?
29. In the end, the entire Disk Memory Division failed. Reaction?