

Chapter Seven: Innovation

Recognize that employees, especially those who are on the front line of your organization and who regularly deal with your agency's customers, often are the source of innovative services that can benefit your customers. Getting them engaged is key.



IBM CENTER FOR THE BUSINESS OF GOVERNMENT
WASHINGTON, DC 20005

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: **Innovation**

Innovation is a hot topic. While not usually viewed as a tool, innovation can assist you in improving performance and achieving your goals. Many organizations in the public, nonprofit, and private sectors are devoting much time and effort to developing new approaches to innovation. In *Expanding the Innovation Horizon: The Global CEO Study 2006*, IBM developed a typology to characterize different types of innovation:

- **Business model innovation** that changes the structure and/or financial model of agencies or organizations that provide programs, deliver services, or support operations. In government, business model innovation is more about the “what” rather than the “how” of government.
- **Operations innovation** that improves effectiveness and efficiency at the tactical or core process/function level.
- **Products/services innovation** that creates new programs or services, or citizen-facing activities.

In his new book, *The Future of Management* (Boston: Harvard Business School Press, 2007), Gary Hamel adds a fourth type of innovation:

- **Management innovation** that “substantially alters the way in which the work of management is carried out, or significantly modifies customary organizational forms, and by so doing, advances organizational goals.”

Your challenge is to foster the right mix of the four types of innovation in your organization.

Foster Business Model Innovation

You should challenge your management team to examine your current agency-wide business models. For example, in the case of the Internal Revenue Service’s (IRS) *e-file*, IRS moved toward the adoption of electronic filing. Your team should ask themselves: (1) Are we sufficiently challenging the way our agency conducts its business? and (2) How can we better measure and manage our agency’s performance in achieving objectives?

Changing a business model in government will not be easy. Business model innovation frequently creates anxiety and fear within agencies. It is thus crucial that you target your business model changes wisely, communicate effectively, implement the changes quickly, and make adjustments as necessary over time.

Foster Operations Innovation

For the development of innovations in business operations, you will need to create “safe spaces” for mid-level management entrepreneurs to pilot new ways of doing business. For example, in the case of shared services, this approach was piloted a decade ago in selected agencies, with great trepidation by both oversight bodies as well as by the providers (who thought their previously mandated customers would go elsewhere). After several years of successful operation, this concept was expanded government-wide.

For the implementation of innovations in operations, you will need to champion things that work and expand them beyond the pilot phase. For example, as the pilots begin to demonstrate promise, you should

export them to other parts of agencies and begin to share them as best or promising practices so that they can be developed in other parts of government.

Foster Products/Services Innovation

To foster innovation in products and services delivered by your organization, there is much that you can do. First, recognize that employees, especially those who are on the front line of your organization and who regularly deal with your agency's customers, often are the source of innovative services that can benefit your customers. Getting them engaged is key. You can do this by creating an atmosphere that encourages individuals to be entrepreneurial in proposing and advocating for innovations. This goes beyond the traditional "suggestion box" to allowing them to try new ways of doing things and recognizing them for their efforts.

Second, the success of most innovations involves effective collaborative approaches—whether it is within your organization, across agencies, across levels of government, or across public-private-nonprofit sectors. Recognizing that this is both an opportunity and a challenge is important when endorsing efforts to pilot or implement innovative products or services.

Foster Management Innovation

In *The Future of Management*, Hamel sets forth a three-prong approach to fostering management innovation in your organization:

- **Challenge long-standing management “orthodoxies” in the organization.** In short, Hamel recommends that you should go to “war” with precedent. If you are going to undertake innovation in the above three areas (business model, operations, and products/services), you will also have to undertake management innovation by developing new approaches to management “systems” in your organization.
- **Develop new principles that will encourage new approaches which will “reinvent” the “management genome” in your organizations.** Hamel recommends that you bring together your management team to examine specific processes within your organization to ask questions such as:
 - Who “owns” this process and who has the power to change it?
 - Who are the “customers” of this process?
- **Find insights from what Hamel calls “positive deviants”—those individuals or organizations with management practices that are eccentric yet effective.**

Be Engaged

In its 2006 survey of 765 CEOs, business executives, and public sector leaders, IBM found that a crucial element in the success of innovation is the following:

- **Innovation requires your personal engagement.** This is where you come in. The survey found that CEOs believe that the major obstacles to innovation reside in their own organization: Culture, budget, people, and process were cited as the most significant hurdles. The federal government is no different. You can change these.

Innovation does not happen in isolation to all of your other activities and initiatives. Innovation can become a key ingredient on actions related to all the tools discussed in this volume. The test of the success of innovation in your agency will be whether it has contributed to improving performance and achieving your goals.

UNDERTAKING INNOVATION

QUESTION: Why do leaders undertake innovation?

ANSWER: First, we need to define innovation. In the *Memo on Innovation*, we discuss four types of innovation. There is no shortage of definitions of innovation. While there are many nuances in the various definitions, there appears to be general agreement that an innovation is new, usually novel, and aspires to change the way an organization (or part of an organization) operates and delivers service to the public.

In his report to the IBM Center (2001), Jonathan Walters analyzed the first 15 years of award winners in the Innovations in American Government Awards program. He found six major reasons why leaders like you undertake innovation within their organization:

- **Being frustrated with the status quo.** Simply put, you may not like some of the answers you are getting from members of your organization. Many leaders find that the organization is taking too long to get things done. Impatience quickly sets in and leaders begin to push for change and improvement. In many cases, the organization is ready for change and responsive to leaders pushing to reexamine current practices and develop new approaches.
- **Responding to crisis.** In this case, it isn't just frustration but an acute event which demonstrates that part of the organization isn't working. After a crisis, leaders have a strong case for change to take to their organization. A crisis often enables a leader to propose major change, not just incremental change at the margins. It's been estimated that 30 percent of innovations are crisis inspired.
- **Focusing on prevention.** In contrast to responding to a crisis where government is reactive, leaders often take a proactive approach to nipping a problem in the bud. Leaders often build a case for investing money to improve a program before it "breaks" and problems arise. Walters concludes that "applying a little inventiveness to treating the problem at the front end is ultimately much cheaper and much more effective than treating it at the back end."
- **Emphasizing results.** As seen throughout this volume, there is an increased emphasis now being placed on "results." Innovations have often been characterized by a leader's desire to move to results-oriented outcomes, rather than the traditional emphasis on process within government. An innovation enables leaders to have results-focused discussions and to design performance monitoring and measurement systems up front, at the start of a new initiative.
- **Adapting technology.** While technological innovations have been a characteristic of many innovations in recent years, there continue to be new opportunities for government to apply the latest technologies in new ways. The next frontier of technological innovations appears to be in the social networking arena, where government can find new ways to engage citizens via the use of these new tools.
- **Doing the right thing.** In his analysis of innovations, Walters found that there were a series of innovations that were "hard to explain in any other way than that they are flat out about doing the right thing." Some of these innovations might have been politically controversial, but leaders decided to pursue them because they felt the activity was needed and could make a difference in a specific policy arena.

There are additional practical reasons for implementing innovation. In IBM's *Global CEO Study 2006*, the CEOs report that a desire for cost reductions and increases in flexibility and organizational responsiveness were prime drivers in seeking increased innovation in their organizations.

Personal Observations on Chronicling Innovators

From *Understanding Innovation: What Inspires It? What Makes It Successful?* by Jonathan Walters

For all the millions of words written about innovation in government (and the private sector), and for all the long-winded attempts to analyze the alchemy of change management in government, innovation, at the end of the day, is a pretty straightforward proposition: It's a people-driven business. And the people behind innovation are a fascinating group.

It's easy to attach to them all the typical adjectives: creative, persistent, even courageous. But those words are used so often they've lost a lot of their punch, as accurate as they might be. Besides, what I've noticed about those who have been identified through the Innovations awards is something a little subtler: They are restless.

When it comes to how public jobs get done, there's a group of people (many, to be sure, who have never been recognized by any awards program and who never will be) who just seem, like the mythical Prince Valiant, to be perennially dissatisfied. Which is why no change-management recipe book in the world is ever going to capture the magic of innovation in the form of some immutable quasi-political or social-scientific math equation. In the end it's actually more of a nurture-nature question best left to psychologists—who, by the way, don't really have any answers, either.

Still, “experts” have been analyzing innovation in the public (and private) sector for eons. Whether it's Borins, Osborne, Light, Peters, or Walters, dozens have gone through the exercise of putting innovative organizations and programs under the microscope in hopes of finding that magic bit of genetic material that will allow innovation to be cloned.

It's not an easy thing to do. Yes, organizations can be structured in a way that will encourage innovation. And certainly it helps to understand the inspiration behind certain types of innovation so that when opportunity visits it can be turned to action. Characteristics of sustainable and replicable programs are worth identifying so that once-and-future innovators at least have the benefit of knowing some tricks of the trade as they embark on the frequently frustrating adventure of pushing change.

But if innovation were a matter of organizational dynamic or just the right opportunity, it would hardly ever happen in the public sector, or probably anywhere else, for that matter. It is people who push it, people often working in dysfunctional organizations under miserable circumstances, and in spite of that, they try to change things.

Very few of the programs recognized have been pushed by high-level, well-known public sector all-stars. For the most part, the programs are the product of inside and outside stakeholders who are simply tired of doing something one way when they suspect—or know—there's a better way; who are tired of chronic mediocrity (or outright failure) when they know government should and could do better.

If pressed to come up with my own formula for how all this should work, and to borrow from the contemporary political lexicon, maybe we need to institute some sort of “two strikes” rule for innovation based on the following observation: If some policy or program is not humane and it's not therapeutic (or, more broadly, if it's not morally defensible and it's not working), then it's a signal to everyone that it's time for change. Or maybe it ought to be a “one strike” rule. But either way, it's going to be people who decide that.



INNOVATION TYPE ONE: BUSINESS MODEL

QUESTION: Can you define business model innovation and give some examples of this type of innovation?

ANSWER: A business model is a summary of how an organization intends to serve its citizens, customers, and employees. It involves both what an organization intends to do as well as how the organization will carry out its plans. In short, business model innovation is a successful change in the elements of the business model that substantially enhances the organization's ongoing performance in delivering benefits versus the current or other available alternatives. It entails innovation in the structure and/or financial model of an organization, regardless of whether it delivers programs, provides services, or supports other operations.

One way to think of business model innovation in government is to think of an organization as a set of processes that turn inputs into outputs, which lead to outcomes. These processes turn labor and capital into services and products. It is these business processes that govern workflow. They include such things as logistics systems, order processing, call centers, customer support, and program operations. Surrounding the work of transforming inputs into outputs, however, is everything the managers do: pulling resources together, developing policy, setting priorities, building teams, nurturing relationships, and forming partnerships.

Business model innovation entails constructing different relationships between users and services, new relationships between institutions, new funding arrangements, major alterations in governance and accountability, and, not infrequently, a redistribution of rights and responsibilities among the public, other stakeholders, managers, and professionals.

Here are two examples from government:

- **Service Canada.** The Canadian government recognized it must introduce new and better ways to serve its citizens to help them adjust to the realities of the modern labor market. In 2006, the government consolidated two departments, with the goal of ensuring integrated policy development as well as improved delivery of programs and services through "Service Canada."

Service Canada is the government of Canada's new, easy-to-access, one-stop service delivery network that brings the range of federal services together to meet the individual needs of Canadians wherever they live. No matter what government of Canada service citizens are looking for, their one stop is Service Canada: at any of the 320 Service Centers across Canada, online at servicecanada.gc.ca, or by phone at 1 800 O-Canada.

- **IRS e-file Program.** In 1998, Congress told the Internal Revenue Service that by 2007 it wanted 80 percent of all tax returns, over 120 million annually, to be filed electronically. IRS realized that it needed a new business model if it stood a chance of meeting the congressional deadline. IRS then speeded up its efforts to increase the e-file adoption rate, which had already been under way for several years. The strategy was simple. Rather than continue to try to encourage taxpayers to file directly through the IRS or other government sites, IRS turned to software companies, national tax preparation firms, and tax accountants. "It was a no-brainer," explained Terry Lutes, the career IRS employee who ran e-file. "We needed to work with the private sector to accomplish our goals." (For a fuller discussion of this innovation, see page 125.)

IRS e-file History

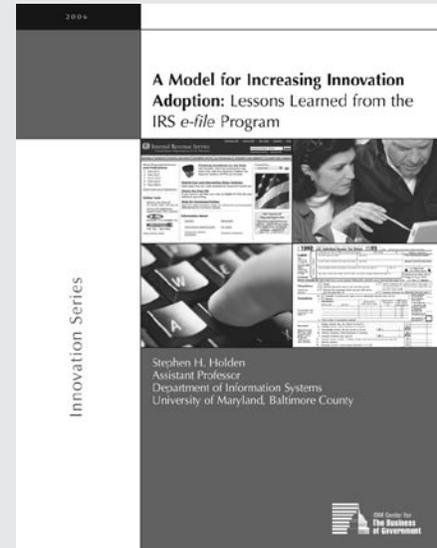
From *A Model for Increasing Innovation Adoption: Lessons Learned from the IRS e-file Program*
by Stephen H. Holden

Since the program's inception in 1985, the IRS has made a variety of changes to the *e-file* program, its organizational support, and the technology it relies on. Some changes seem as simple as changing the name from electronic filing or "ELF" to IRS *e-file*; others are as fundamental as changing how the IRS relates to its private sector partners. The nature of these changes has significance for other federal agencies seeking to replicate the success of IRS *e-file* in increasing e-government adoption.

- It's one of the longest-standing e-government programs, dating back to 1987 and predating popular notions of e-government. As a result, there are nearly 20 years of history and documentation to explore, in addition to a myriad of changes.
- IRS *e-file* is faced with conditions that most e-government programs would find insurmountable barriers to adoption:
 - There is no legal or regulatory mandate for individual taxpayers to e-file their tax returns
 - Paper filing is essentially free, and electronic filing often costs taxpayers money for software or services.
 - Private sector firms intermediate the vast majority of electronic transactions.
- Despite its slow start, IRS *e-file* is generally considered to be a success. The IRS announced that it received 70 million e-filed individual returns at the end of the 2006 filing season, more than filed on paper. The Government Accountability Office (GAO) found that of the 24 initiatives identified in the federal government's original strategic plan for e-government, the IRS *e-file* initiative was one of two initiatives that substantially met its originally stated objectives.

Part of what makes studying IRS *e-file* so compelling is its relative and absolute success of adoption in an area of innovation (i.e., information technology and e-government) where there is little visible success on a larger scale. While the IRS *e-file* program has experienced significant growth, especially in the last several years, the IRS was under significant pressure in the mid to late 1980s to more rapidly increase the proportion of electronically filed returns. External stakeholder groups, most notably GAO on behalf of Congress, issued a report saying the IRS was not doing enough to increase electronic filing rates. Within the executive branch, the Office of Management and Budget (OMB) and the Treasury Department were also reported to be pushing the IRS to increase electronic filing as a means to reduce paper submission processing costs. Even private sector partners in the IRS *e-file* program, such as professional groups like the Council for Electronic Revenue Communication Advancement (CERCA) and the National Association of Computerized Tax Processors (NACTP), argued that the IRS was still not doing enough to enable and promote electronic filing. Prior to 1998, though, there was no real coordinated legal or policy initiative from the legislative or executive branch to boost electronic filing volumes.

At the same time as the external pressure for electronic filing was growing, albeit somewhat disjointedly, there was also some internal impetus as the IRS hoped to decrease its reliance on the expensive and error-prone paper submission processing it had been using since the 1960s.



INNOVATION TYPE TWO: OPERATIONS

QUESTION: Can you define operations innovation and give some examples of this type of innovation?

ANSWER: Operations innovation is an underlying enabler that leads to improved efficiency or effectiveness in program operations at the tactical, or core process, levels. The impact of business operations innovations tends to be internal to an organization, something that the customer might not see but would benefit from.

The source of business operations innovation is a matter of practical necessity, and it often stems from organizational entrepreneurs in mid-management trying to solve a real problem.

In recent years, there have been the following examples in government:

- **Shared services.** Shared services represent an organizational form in which common functions across a number of departments/agencies are consolidated and undertaken by a specialized agency/service delivery center. The federal government hopes to save more than \$5 billion over the next 10 years by moving to a shared services model for financial management and human resources. Most of the current arguments favoring increased use of shared services by governments have centered on achieving cost efficiencies, improved customer service, and enhanced process efficiencies.

The concept of shared services is not new to the federal government. Since the early 1980s federal entities have provided payroll and financial services to other federal entities (“cross-servicing”). In the early 1990s the Department of Defense formed the Defense Finance and Accounting Service (DFAS) to consolidate 338 offices (now down to 26 offices) into a single organization providing financial services to the military and other defense entities. Numerous other federal departments have consolidated financial management operations to form internal shared service organizations, particularly when implementing new financial management software.

- **Air Force’s cost management initiative.** The commanding general of the U.S. Air Force Materiel Command (AFMC) in the late 1990s, General Bruce Babbitt, wanted to improve his command’s efficiency by shifting from a budget to a cost management culture. AFMC’s internal customers in the Air Force felt AFMC worked fairly well but its services cost too much. Instead of the traditional emphasis on short-term cost-cutting or productivity-improvement approaches, General Babbitt decided to pursue a longer-term effort. His goal was to change the command’s capacity to manage costs by systematically improving the command’s sophistication with cost measurement and analysis. When taken together, the operational innovations General Babbitt introduced into AFMC had their intended effect. As AFMC developed its fiscal year 2000 budget, it reduced its budget request by \$2.7 billion over what had been previously estimated, and it stopped losing money in its working capital funds. (For further discussion of the Air Force Materiel Command, see pages 82–83.)
- **SeaPort:** In the late 1990s, the Naval Sea Systems Command (NAVSEA) had to reduce its spending on professional services. While there was agreement that spending needed to be cut, NAVSEA was unable to determine exactly how much it was then actually spending on professional services. As a consequence of the need to save money, better control spending, and speed up the procurement process, NAVSEA created SeaPort. SeaPort became the first federal e-marketplace for the acquisition of professional services. It was an innovative application of e-business practices to the naval procurement system. Navy Captain K. R. Wheelock describes SeaPort: “Simply put, SeaPort-e (SeaPort Enhanced) provides a faster, better, and more cost-effective means of contracting for professional services.”

SeaPort: An Innovation in Navy Procurement

From *SeaPort: Charting a New Course for Professional Services Acquisition for America's Navy*
by David C. Wyld

Headquartered in the historic Washington Navy Yard, the Naval Sea Systems Command is the arm of the Navy responsible for designing, acquiring, and maintaining the Navy's 300+ ship fleet and its ship-board and combat weapons systems. NAVSEA's origins can be traced back to 1794. Today, NAVSEA is the largest of the Navy's five systems commands. NAVSEA has an annual budget of nearly \$20 billion—accounting for almost a fifth of the Navy's total budget. Through its approximately 50,000 employees, NAVSEA manages more than 130 acquisition programs. It also administers over 1,400 sales contracts to approximately 80 foreign militaries, amounting to more than \$16 billion annually. NAVSEA's operations encompass all phases of the life cycles of the Navy's ships—which now can reach 40 to 50 years—and its weapon systems.

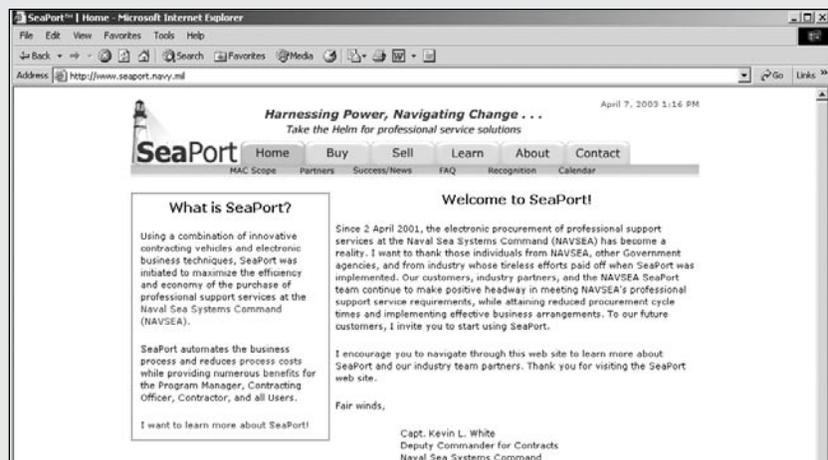
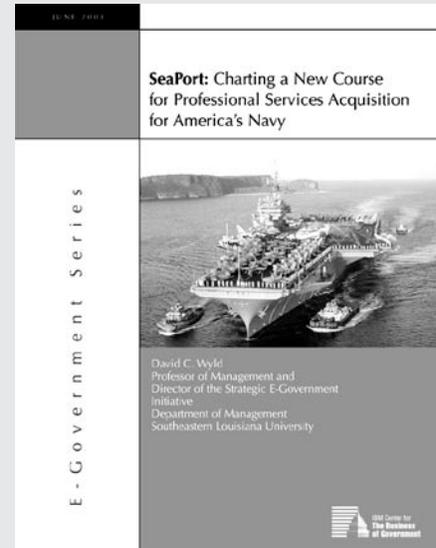
SeaPort was established by NAVSEA to be the first e-marketplace for services acquisition in the federal government. SeaPort has become an e-business portal through which NAVSEA acquires a significant portion of the over half a billion dollars worth of professional support services (PSS) necessary to support the Navy's mission around the world. The total value of the SeaPort multiple award contracts (MACs) is placed at \$14.5 billion over the potential 15-year duration of the indefinite delivery/indefinite quantity (ID/IQ) contracts. It was initiated by NAVSEA to streamline the services contracting model:

- To achieve \$250 million in savings
- To enable the Navy to meet the secretary of defense's mandate that performance-based contracting be used in 50 percent of professional services contracting by 2005

Through its use of ID/IQ contracts of up to 15 years, issued to 20 MAC holders (with fully one-third being small businesses), SeaPort has many innovative measures, including:

- Built-in, guaranteed cost reductions
- Award-term and performance-based contracting provisions
- Totally electronic order process
- Real-time monitoring of contractor performance and quality
- Alternative dispute resolution procedures

The SeaPort website, shown at right and accessible at www.seaport.navy.mil, is a constantly updated "community of practice."



INNOVATION TYPE THREE: PRODUCTS AND SERVICES

QUESTION: Can you define product and service innovation and give some examples of this type of innovation?

ANSWER: Product and service innovations are mission- or citizen-focused in their effects. They result in a substantially different approach to products or services, or are an entirely new product or service. These types of innovations can result in three effects:

- They can empower customers to serve themselves rather than having to depend on government employees or middlemen to provide a service.
- They can offer new products or services that have not been previously available to customers.
- They can enable the integration of existing services that benefit the citizen in a way that provides new convenience or value.

Interestingly, oftentimes the genesis of new products or services in the public sector stem from initiatives by career mid-level managers who are entrepreneurial in spirit. They are often inspired by something they've seen in the private sector or in other governments. Frequently, these innovations come about because of a certain level of technological maturity that allows an innovation to flourish and take root. For example, the use of wikis to develop country profiles by State Department employees and the new "Diplopedia" initiative would have been unthinkable just five years ago, even though such a collaborative tool was needed.

In recent years, there have been the following examples in government:

- **USA.gov.** How do you find out anything in the federal government? A decade ago, you looked in the Blue Pages of your telephone directory and started to call around. If you were lucky, you found someone to answer. If you were really lucky, that person knew the answer to your question. Other times, you were on your own. For example, one Baltimore Blue Page entry was a phone number for Building 203, listed under the heading for the U.S. Customs Service. That was then. Today, you can find out more helpful information yourself by going on the Internet. By starting at www.usa.gov, you can find out virtually anything the federal government does and, in some cases, what state and local governments do, as well.

While the idea for an innovative service—a one-stop government-wide web portal—evolved organically, it took root and grew because of the dedication and passion of a small core of staff at the mid-level of an agency, with strong top-level support. It also evolved its services and value in ways not anticipated by the original sponsors—such as the collaborative network of web masters. In addition, external validation strengthened its position and helped protect it from political forces. These characteristics seem to be the case in many other service innovations.

- **ClinicalTrials.gov.** If you have a life-threatening illness, you are likely to be willing to try anything to recover, including volunteering for experimental clinical trials for drugs or therapies that may not be effective, or if effective, not commonly available for years. The federal government allows public and private researchers and companies to conduct hundreds of clinical trials every year. But how do you find out if there are any that could benefit you?

ClinicalTrials.gov, administered by the U.S. Department of Health and Human Services, is a pioneering online health care resource serving patients and families facing life-threatening illnesses with vital information related to clinical trials. The system has its roots in law: The Food and Drug Administration (FDA) Modernization Act of 1997 mandated a registry of both federally and privately funded clinical trials "of experimental treatments for serious or life-threatening diseases or conditions."

The law required that the registry be easily accessible and understandable by the public. Prior to this point in time, clinical trial information was neither. Previous attempts to create such a “one stop shopping” for clinical trial information was targeted to researchers, not patients. The innovation was making it “customer-centric” with the patient, not the researcher, being seen as the customer.

- **Electronic health records at the Department of Veterans Affairs (VA).** How many times have you gone to one doctor but he or she needed to see your medical history kept by another doctor? Or you were visited by multiple doctors in a hospital setting, but your health records, kept by different doctors, were not readily accessible? Or your doctor could not find your files? Even scarier—every year, an estimated 48,000–98,000 patients die unnecessarily in hospitals because of a preventable medical error. Though these errors can occur at any point in the health care delivery system, the root causes of many of these errors are often linked to faulty human judgment and a lack of standard protocols. Health care providers that use electronic medical records along with related technology have dramatically reduced errors. The VA’s Veterans Health Administration (VHA) has been a leader in introducing these kinds of service innovations.

Now, imagine an electronic health record (EHR) system that can pull it all together. The VA’s electronic health record system integrates all elements of a veteran’s health history, medications, lab work, X-rays, scans, EKGs, medical diagnoses, and more, in one place. Through VA’s remote access capability, the patient’s entire record is available at all VA health care sites nationwide. In fact, when Hurricane Katrina wiped out the VA hospital in New Orleans, veterans’ records were not affected. VHA calls this system “VistA”—its Veterans Health Information Systems and Technology Architecture.

- **OSHA’s compliance advisors.** Small business owners, for the most part, want to provide safe and healthy workplaces for their employees. But knowing how to do this, and knowing the government rules that apply, can be complicated. Also, how do you find workplace hazards that you don’t even know you have? Complying with complex rules oftentimes means hiring consultants to conduct an assessment and providing advice. This, however, can be costly for business owners. Is there a way to do what’s right, but not have to pay a third party to provide that assurance?

In the mid-1990s, the federal Occupational Safety and Health Administration (OSHA) piloted a service innovation to attempt to do this. OSHA is responsible for protecting the health and safety of American workers. To do this, it creates regulations that define safe workplace behavior from offices to construction sites. It then conducts inspections to ensure employers are complying with the rules. Business owners often see OSHA much as they see the IRS—a place to avoid contact as much as possible.

So, while OSHA wants to help businesses comply, they are not the first place business owners turn to for help. OSHA’s Ed Stern became an advocate for electronic tools and “expert” systems to assist small business owners comply with complex OSHA requirements by allowing anonymous self-assessments. As a proponent of this innovative approach, he developed several pilots that were well received by the business community. These interactive “Expert Advisors” use artificial intelligence software to identify and solve problems in layman’s terms. OSHA notes that it provides confidential, free guidance, 24 hours a day, with consistent and reliable answers.

As a result of its success as a pilot program, OSHA’s Expert Advisor system has been expanded to nearly a dozen different business scenarios. For example, a business owner might start with the general “Hazard Awareness” advisor. According to OSHA, the advisor guides the owner through a series of questions about activities, practices, equipment, materials, conditions, and policies at the workplace. Based on what it learns from the user, there are follow-up questions that then result in customized reports ranging from four to 30 pages. Unlike a typical Internet search, the artificial intelligence built into each Expert Advisor program can “continue asking the user questions until it can devise a reasonable answer,” notes Advisor champion Stern. “It’s like the difference between a medical librarian and a medical doctor. The librarian will help you get a lot of information to read. But if you need expert help, you talk to the doctor.”

INNOVATION TYPE FOUR: MANAGEMENT INNOVATION

QUESTION: What is management innovation?

ANSWER: In his book *The Future of Management*, Gary Hamel defines management innovation as “anything that substantially alters the way in which the work of management is carried out, or significantly modifies customary organizational forms, and by so doing, advances organizational goals.” The goal of management innovation, according to Hamel, is to change the way managers do what they do and to do so in a way that enhances organizational performance.

The goal of management innovation is to improve the performance of your organization by focusing on its management practices. The three other types of innovation (business model, operations, and products/services) discussed in this section focus on specific programs or activities of a government organization. In contrast, management innovation focuses on the systems and processes now being used in your organization to “manage” itself. Management innovation targets a company’s management processes. Hamel includes the following types of *management* processes that are common in all organizations: strategic planning, capital budgeting, project management, hiring and promotion, training and development, internal communications, knowledge management, and employee assessment and compensation. We discuss many of these systems and processes in other parts of this volume.

Hamel writes that management innovation can improve your organization’s performance when one or more of the following conditions are met:

- The innovation is based on a *novel management principle* that challenges some long-standing orthodoxy.
- The innovation is *systemic*, encompassing a range of processes and methods.
- The innovation is part of an *ongoing program* of rapid-fire invention where progress compounds over time.

There are two keys in implementing management innovation in government. The first is not to assume that all the management processes you find in your organization are written in stone and cannot be changed. There have been studies that found that about 80 percent of these rules and regulations were “self-imposed” by the organization itself and not mandated by either legislation or executive branch circulars. You will likely find that these processes were put in place to combat a specific problem or a one-time abuse and the rule or process might have now outlived its usefulness.

The second key is to create an organizational environment in which individuals in your organization feel comfortable in raising management reforms. You must communicate to them your belief that your agency’s rules and processes can be changed and improved when there is a clear business case to be made for such change. Management innovation should be encouraged throughout the organization and not limited to just those currently “in charge” of specific processes.

In his book, Hamel proposes several challenges related to creating an organizational environment supportive of management innovation:

- The challenge of enrolling every individual within your organization in the work of innovation and equipping each one with creativity-boosting tools
- The challenge of ensuring that the agency’s top leadership doesn’t straitjacket innovation and gives new ideas a chance to prove their worth
- The challenge of creating the time and space for grassroots innovation

Forging Management Innovation

From *The Future of Management* by Gary Hamel (with Bill Breen)

Boston: Harvard Business School Press, 2007

The Courage to Lead

... you have the guts to tackle problems that others are too timid or too shortsighted to take on.

To build a capacity for relentless management innovation, you must be willing to ask, "What new management challenge, if mastered, would give us a unique performance advantage?"

An Inescapable Conversation

What you need is a steady breeze that will help the flames of management innovation to spread. You need to get people ... talking about the opportunity to reinvent the technology of management. You need to get them thinking about how they can turn management itself into a competitive advantage.

A Focus on Causes, Not Symptoms

To cure a crippling disease, drug researchers have to uncover the genetic flaws or disease mechanisms that cause the malady. The same is true for organizational "diseases"—the incapacities that stem from inherited management beliefs. Here, too, a painstaking analysis of first causes is essential to inventing a cure.

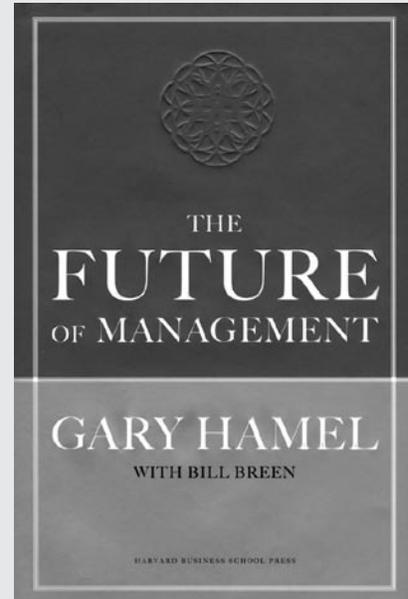
Accountability

One suggestion: have senior staffers meet quarterly to review one another's innovation performance. Questions to consider should include:

- Are we generating a robust flow of new management ideas and experiments?
- Are we experimenting broadly enough? Are there any innovation "black spots"? Are there management processes, or sub-processes, where there are few if any ongoing experiments?
- Are our experiments bold enough?
- Which experiments should we scale up now, which should we abandon, and which need to go through another round or two of development?

Permission to Hack

Perhaps the most important thing you can do to help ... is to give "ordinary" employees and lower-level managers the opportunity to "hack" those processes. No, this doesn't mean letting the janitorial staff tear up the employee handbook. What it does imply is creating a forum in which anyone ... is free to suggest alternatives to the management status quo.



INCREASING YOUR CHANCES OF SUCCESS IN INNOVATION

QUESTION: Are there specific actions I can take to increase the chances of a successful innovation?

ANSWER: There is now much experience with innovation. It has been a “growth” industry over the past 20 or so years. In addition to studying the Innovations in American Government Awards program (see Jonathan Walters on page 135), University of Toronto’s Sandford Borins in his report to the IBM Center also examined innovation award winners identified by the Institute of Public Administration of Canada (IPAC) and the Commonwealth Association for Public Administration and Management (CAPAM). In his study, Borins examined nearly 400 award winners.

Based on his analysis of award-winning innovations, Borins developed a series of recommendations for executives like you who are interested in pursuing innovations within their organization:

- **When attempting to implement an innovation, anticipate a wide variety of obstacles.** A list of such obstacles is presented on page 133. Borins is optimistic, however, that many of these obstacles can be overcome once identified. The most frequent obstacle, not surprisingly, is resources. As noted in the Money section, you will need to work closely with your finance and budget staff to find resources. Borins also emphasizes that there is most likely a much larger group of potential supporters for innovation than you might anticipate: innovators within your own organization, within the larger government, and among your clients in the private and nonprofit sector, as well as in state and local level government. Your job will be to mobilize this support.
- **Clearly demonstrate your support.** There is wide agreement that your support is crucial. You can show your support and encouragement for innovation in the following ways: making innovation a priority within your organization, providing support and recognition to those who undertake innovation, and encouraging innovations to bubble up through the organization.
- **Reward those who undertake innovations.** Rewards are a key tool you can use to encourage the types of behavior (and resulting culture) you wish to see in your organization. Many types of rewards are at your disposal: financial compensation (such as bonuses for members of the Senior Executive Service) and the creation of “gain-sharing” programs. When financial compensation is constrained, Borins reports, non-financial awards and recognition are powerful substitutes.
- **Consider creating an “innovation fund” for your organization.** There are many examples of such funds being used in the public sector, including the federal government. Since it is often hard for innovators to find additional funds within their specific programs, it is very effective to have an agency-wide “pool” of funds to which innovators can apply for funding. Creation of such a fund is also a clear signal of your support for innovation. But a word of caution should be added. As with many “special” funds in government, be careful to ensure that the fund cannot be labeled a “slush” fund. Keep it small, have clear procedures for allocating the money, and create metrics to track the benefits.
- **Consider collaborating with client organizations within the private and nonprofit sectors, as well as state and local government.** One of the greatest challenges facing your organization is to create new partnerships and collaborations with appropriate client groups (see the section on Collaboration). Innovation will allow you the flexibility of experimenting with new approaches to the delivery of services.

One final note: You must be careful to manage expectations regarding innovation. While the concept of innovation implies that not all initiatives will be successful, government does not like any initiatives to so-called “fail.” Your overall innovation strategy will only be successful if you and your organization accept that a reasonable amount of failure is part of the process, and you are prepared to explain and defend this approach.

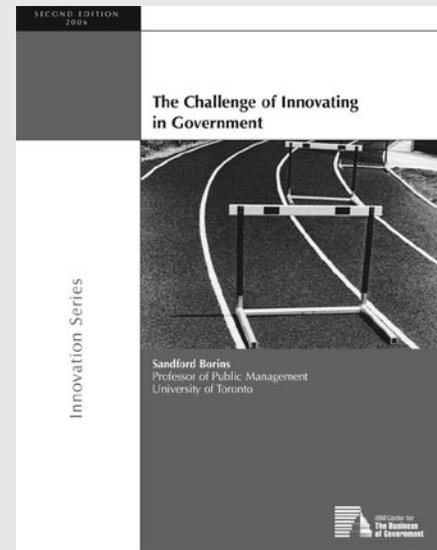
Identifying Obstacles to Innovation

From *The Challenge of Innovating in Government* by Sandford Borins

Identifying obstacles enables you to formulate questions to ask when designing an implementation strategy.

- How much will this program cost? Can the money be found through public sector appropriations? Will user fees be possible? Are private sector donations a possible funding source?
- Will the program require any changes in current regulations or laws? If so, what is the process involved and whose support will be required?
- Which organizations will be involved in delivering the program? If multiple organizations will be involved, what are their ongoing relationships? Are they organizations that rarely deal with one another, or do they have a history of rivalry, for example, turf battles? Will they fight for control of the program or fight to avoid involvement?
- If the innovation involves the application of a new technology, will it encounter incompatible legacy systems being used by different organizational participants? Will the technology lead to job losses, especially in unionized positions? Will users of the new technology require special training?
- Who will be the key participants in delivering the innovation? Will they be expected to go beyond what is normally expected of them in their current positions? If so, how will they be motivated?
- Will public sector unions oppose the innovation because it threatens job losses or affects the working conditions of union members?
- Will middle managers oppose the innovation because it devolves responsibility to frontline staff and weakens their supervisory authority?
- Will the innovation be opposed by central agencies, for example, because it reduces their control over financial or human resource decisions?
- Will the innovation face political opposition because it is inconsistent with some politicians' values? Will it face political opposition because it will reduce their ability to allocate resources to their constituents?
- Will there be public doubt or skepticism about whether the program can work?
- Will there be public opposition to the program, for example, an application of information technology that is considered by some to be an invasion of their privacy?
- Will the program face opposition from the public because it allows public servants to operate in ways or receive compensation (for example, performance-related pay) considered to be more appropriate to the private sector than the public sector?

This list of questions—formidable as it might seem—is not intended to dissuade potential public management innovators, but is designed to alert them to the challenges faced by those who have preceded them on the road to change. While all of these questions are worth asking, only certain obstacles may be encountered in a given case.



SUCCEEDING WITH INNOVATION

QUESTION: What can be learned from successful innovations?

ANSWER: One of the most successful innovations in recent years has been the *e-file* program at the Internal Revenue Service. The *e-file* story is an excellent example of innovation which started back in the late 1980s and overcame many obstacles in the ensuing two decades. In 2006, nearly 60 percent of all taxpayers filed electronically and that figure is expected to continue to rise dramatically in the years ahead.

In his 2006 report to the IBM Center, Stephen Holden sets forth five lessons you can learn from the IRS *e-file* experience:

- **When an innovation matures, consider creating an organizational location for the innovation.** This is a common problem facing many innovators in government—where is the best organizational location to nurture the innovation after it matures? While “skunk works” facilities can work well to design an innovation, they frequently are not the right place from which to launch an initiative. (“Skunk works” refers to “off line” R&D facilities common among military contractors in the 1950s.) In the IRS case, a pivotal event in the ultimate success of the initiative was the creation of the Electronic Tax Administration (ETA) office. Holden writes, “Prior to the creation of ETA in 1998, the IRS had seemingly been ambivalent about electronic filing, with responsibility spread among various offices and a resulting lack of a singular voice within and outside the organization.”
- **Develop collaborative partnerships with stakeholders.** The *e-file* program is an excellent example of Sandford Borins’ advice to partner with client organizations in undertaking innovations (see page 132). It became clear to IRS that they could not undertake this innovation by themselves. They would need the cooperation of all IRS stakeholders, including the private sector. The controversies surrounding IRS in the mid-1990s also created an atmosphere for the IRS leadership to reach out to stakeholders. Holden writes, “By working effectively with external stakeholders, the ETA was able to create a powerful ‘innovation directive’ for *e-file*.”
- **Invest in innovation.** Innovations are seldom “free.” They do require some investments, such as the creation of innovation funds recommended by Borins. In the IRS case, the organization made investments in knowledge building at the outset of the program by creating an R&D project and fielding it as a prototype and then as an operational program.
- **Shift from a “field of dreams” mentality of marketing to proactive outreach.** A common challenge facing all innovations is that while many will agree that the new innovation is a “good idea,” that does not mean that it will be self-executing and quickly become widely accepted and adopted. Holden describes the change of attitude at IRS as movement away from “the old ‘inform and educate’ mind-set to that of a product-oriented organization that created brand identity and promoted the benefits of the *e-file* brand and associated product over the alternative (paper).”
- **Use program performance data to drive decisions.** A key investment made by IRS was in developing a variety of program measures. IRS had traditionally had a rich collection of output and outcome data. What is unique is that IRS used the data to provide product enhancement decisions and to evaluate marketing efforts. The collection and analysis of this data provided the analytical basis for IRS’s marketing efforts, which distinguished *e-file* from paper filing and highlighted the benefits of e-filing to users.

Additional Insights into What Makes Innovation Successful

From *Understanding Innovation: What Inspires It? What Makes It Successful?* by Jonathan Walters

Keep It Simple in Concept

Innovations in American Government award winners can be divided into two categories: the ones that are easy to explain and the ones that are hard to explain. There are far more in the former than the latter category, to be sure. But it's clear from looking at those programs that have caught on and those that haven't, that the more straightforward the concept, the better a program's chances of sticking around and being adopted by other jurisdictions.

Make It Easy to Execute

Programs that seem to have natural powers of survival and replication don't require major legislation or huge administrative rule changes to create or implement, nor do they force participation. That is, stakeholders can choose to be part of a new way of doing business of their own free will.

Shoot for Quick Results

Many of the Innovations in American Government award winners that have gone on to be widely copied have another thing in common: They yield measurable results in a very short period of time. David Osborne puts it another way: "They have a good story to tell." And in the innovations business, a good story revolving around quick, easily communicated results is priceless.

Be Frugal

As many have noted, one of the organizational imperatives damping down innovation in the public sector is a general disinclination to spend new money on untested ideas, even ones ginned up by seasoned veterans who might know what they're up to. This rule holds even for programs that extensive research indicate are probably going to be a worthwhile investment—eventually.

... it's actually hard to find many Innovations award winners that involve huge investments of money. This holds true even for the high-ticket world of health care. Indeed, many of the health-related programs identified by the Innovations award program have been picked specifically for the fact that they extended health care to some previously uncovered population and did it without significantly increasing a jurisdiction's costs.

Make It Appealing to the Widest Possible Constituency

One of the really interesting features of the Innovations award program is that it clearly doesn't tend toward political pandering. Of course, it shouldn't. But still, what easier way to recognize replicable programs than to stick one's finger in the air, see which way the political winds are blowing, and then choose an early "three strikes and you're out" initiative knowing that 49 of them are bound to follow in rapid succession. In fact, the awards program tends to attract—and reward—those who buck conventional political "wisdom" and eschews the quick fix of the day.



COLLABORATIVE INNOVATION

QUESTION: What is collaborative innovation and can I use this approach in my agency?

ANSWER: Much of the discussion in the previous Q&As was focused on innovation by employees within your organization to transform your business model, operations, products/services, or management practices.

In his report to the IBM Center, Rensselaer Polytechnic Institute's Satish Nambisan sets forth a model of collaborative innovation in which government agencies partner with a variety of external networks and communities to drive innovation. In other words, government agencies do not have to "do it all" themselves in regard to developing innovative ideas and programs. By deploying a collaborative approach to innovation, government gains the benefits of the knowledge and experience of those outside of government.

You and your agency can play four distinct roles in seeking innovative ideas and solutions from organizations external to government:

- **Innovation integrator:** In this role, you are dealing with a defined problem or issue and you have decided that you want to take the lead in developing an innovative solution or new program. Within government, the Department of Defense has traditionally played this role with government contractors in developing innovations where the innovation desired could be defined and government takes the lead.
- **Innovation seeker:** In this role, you are dealing with a much less defined problem and you decide that your agency will take the lead in "seeking" a solution. A portion of the research supported by the National Institutes of Health (NIH) fits this model. Frequently, NIH requests researchers to submit proposals in response to general descriptions of problems for which NIH and the scientific community is seeking solutions.
- **Innovation champion:** In this role, you are dealing with an "ill-defined" problem for which the community at large has the leadership role. You become a "cheerleader" in this situation and must develop ways in which you can encourage the development of innovation on public problems in the private and nonprofit sectors. Your agency might become a member, but not leader, of a consortium of organizations seeking innovations. An example is the All Hazards Consortium, an initiative consisting of federal, state, and local government organizations and the private sector.
- **Innovation catalyst:** In this role, the community at large has the major leadership role with a more defined problem to be solved. As described by Nambisan, innovations in this arena usually focus around existing programs or services which can be provided by the community, such as volunteer initiatives.

As we discussed in the previous answers, you can take specific actions to enhance your organization's capabilities. In order to foster an innovative collaborative organization, Nambisan concludes, you must:

- Create a culture of openness in which your organization is willing to work closely with those outside of government to seek new solutions.
- Find the "right" organizational structure from which your agency can play the desired innovation role.
- Develop appropriate leadership and relationship skills needed to foster both collaboration and innovation.
- Adopt a portfolio of success metrics.

Four Roles for the Government in Collaborative Innovation

From *Transforming Government Through Collaborative Innovation* by Satish Nambisan

Two important dimensions structure the landscape of collaborative innovation and problem solving in government. The first dimension relates to the nature of the innovation or problem—that is, how well the problem is defined and how the innovative idea evolves. The second dimension relates to the nature of the collaboration arrangement or network leadership—that is, how the innovation activities are coordinated and how the network partners share in the decision making.

Consider the first dimension: the nature of *innovation*. The innovation or problem space can be conceptualized as a continuum that has “defined” problems at one end and “emergent” or ill-defined problems at the other end. At the defined end of the continuum, the problem space is framed or defined by existing government services and programs or technology infrastructure and systems; for example, innovations that improve the delivery of existing social welfare programs or technological infrastructure innovations that enhance the effectiveness of tax collection. At the other end of the continuum, the problem space may be less well defined or more emergent in nature; for example, innovations that involve creating new mechanisms and systems for disaster management or those that address emerging public sector issues such as global warming. Although the broad contours of the problem might be known—for example, the target population for a new government service or program—bringing more clarity to the problem might require acquiring inputs from diverse stakeholders.

The second dimension, the nature of the *network leadership*, reflects the organization or structure of the network. Network leadership can be conceptualized as a continuum of centralization, ranging from government-led or highly centralized to community-led or diffused. At the centralized end of the continuum, the relevant government agency assumes the role of the dominant partner and leads the network. For example, in most defense-related innovation projects, the lead agency plays such a leadership role. Note that leadership can be exercised in different ways—envisioning and establishing the innovation goals, selecting the network members, and making the critical decisions that affect or shape the nature or process of innovation. At the diffused end of the continuum, the leadership tends to be loosely distributed among the members of the network or community, with the government agency playing a non-dominant role. A good illustration of this in the non-governmental context is the case of open-source software projects, which often have a leadership structure wherein the community members share in the decision-making powers.

These two dimensions define four different roles that government agencies can play in network-based collaborative innovation and problem solving.



		Network Leadership	
		Government-Led (centralized; formal structure/linkages)	Community-Led (diffused; informal structure/linkages)
Innovation Space	Emergent (new services/programs; unstructured problem space)	Government as Innovation Seeker	Government as Innovation Champion
	Defined (existing services/programs; structured problem space)	Government as Innovation Integrator	Government as Innovation Catalyst

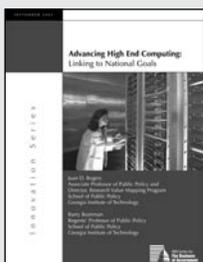
INNOVATION

For Additional Information on Innovation



Managing the New Multipurpose, Multidiscipline University Research Centers: Institutional Innovation in the Academic Community (2003) by Barry Bozeman and P. Craig Boardman

This report describes the shift from funding individual projects to funding science centers. This study includes historical analysis of the evolution of science centers, focusing on new science and technology centers, and explores the management imperatives resulting from this new mode of organizing scientific research.



Advancing High End Computing: Linking to National Goals (2003) by Juan D. Rogers and Barry Bozeman

The report discusses the critical importance of high end computing (HEC) to science, engineering, and the overall research and development system of the nation, as well as the role of policy makers in ensuring HEC's continued advancement. The report addresses the importance of high end computing as a tool for achieving national goals and the application needs of the scientific, research, and business community.



Creating a Culture of Innovation: 10 Lessons from America's Best Run Cities (2001) by Janet Vinzant Denhardt and Robert B. Denhardt

Through a comprehensive case study of Phoenix, Arizona, this report explores how managers create a culture of innovation. Based on interviews with Phoenix's mayor, city manager, and department heads, themes are developed on creating a culture of change, encouraging responsible risk-taking, and undertaking public entrepreneurship. The study provides recommendations for managers who are focused on change and innovation within their organization.



San Diego County's Innovation Program: Using Competition and a Whole Lot More to Improve Public Services (2000) by William B. Eimicke

This report focuses on lessons learned in San Diego County, California, from the various innovations undertaken by the county. The lessons learned from San Diego are used to make recommendations for other jurisdictions to consider when introducing innovation in the public sector.



Entrepreneurial Government: Bureaucrats as Businesspeople (2000) by Anne Laurent

This report examines the story of a group of civil servants who moved away from stovepiped, red-tape-ridden bureaucracies to create new businesses within government. These programs—an amalgam of franchise operations, revolving fund reimbursable services, multi-agency contract operators, and fee-based service providers—offer lessons for implementing innovations in government.

For Additional Information on Innovation



Innovation in the Administration of Public Airports (2000) by Scott E. Tarry

This report examines the innovative approaches taken by five publicly owned and operated airports to adjust to the evolution of America's air transport system. The study provides examples of how to make public enterprises more efficient and innovative.



Business Improvement Districts and Innovative Delivery (1999) by Jerry Mitchell

This report focuses on providing a better understanding of Business Improvement Districts (BIDs), a significant innovation in local service delivery. BIDs are self-help ventures organized by property owners and local governments to identify and develop areas of cities where a more successful and profitable business climate is needed.