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The Challenge of Innovating in Government



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Professor of Public Management
University of Toronto

The PricewaterhouseCoopers Endowment for

The Business of Government

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Foreword

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On behalf of The PricewaterhouseCoopers Endowment for The Business of Government, we are pleased to present this report by Professor Sanford Borins, "The Challenge of Innovating in Government."

The report presents excellent advice to aspiring government innovators on how they can overcome obstacles to innovating in government. The report is unique in that it is based on surveys of over 300 government reformers around the world who have received awards for their innovations. Professor Borins surveyed innovators who have been recognized for their achievements either by the Innovations in American Government program, sponsored by the Ford Foundation and the Kennedy School of Government, or the Commonwealth Association for Public Administration and Management international innovations award program. This study thus provides cross-cultural perspectives on innovation.

In the report, Professor Borins analyzes the key features that define the characteristics of an innovative organization and describes common obstacles to innovation and techniques for overcoming those obstacles. The report also contains an interesting discussion of where innovations within organizations are likely to occur. Finally, Professor Borins provides advice to government leaders on how they can create supportive environments for innovation within their organizations.

We trust that this report will be a highly useful resource for all government managers and leaders who wish to foster innovation in their organizations.

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Executive Summary

In contrast to the institutions and incentives that encourage innovation in the private sector, the public sector traditionally has tended to discourage innovation. It does not provide seed money for innovations or bonuses for innovators. While the rewards for successful innovation are meager, the consequences of unsuccessful innovation are grave. Stringent central agency controls also constrain public servants' innovativeness. The objective of this report is to find ways to change the traditional bias against innovation in the public sector.

The report uses as its database large samples of applications to two major public management innovation awards, one in the United States and the other in the Commonwealth. The experience of these innovators is analyzed to develop recommendations for aspiring public sector innovators. The appendix discusses the research methodology in detail to show that these applications can be considered representative of successful public management innovation in both advanced and developing countries.

The five major characteristics of these successful innovations are:

- the use of a systems approach
- the use of new information technology
- process improvement
- the involvement of the private or voluntary sectors
- empowerment of communities, citizens, or staff

These characteristics have a number of sub-themes as well — for example, “process improvement” includes applications of the Pareto (80-20) rule, user pay mechanisms, voluntary compliance, and alternative dispute resolution. Innovators will often apply these characteristics as building blocks in response to complex problems. These building blocks are flexible and scalable, and transcend policy areas and national public services or cultures.

After planning an innovation, it is essential to map out the steps necessary to implement it. The samples of innovations present a wide variety of obstacles, including those that arise within the bureaucracy, at the political level, and outside the public sector. These obstacles generate a set of questions innovators should ask themselves regarding the cost of the innovation and the availability of resources, the innovation's legal mandate, the capacity of organizations expected to deliver the innovation, the attitudes of occupational groups that will be involved in the innovation, the implications of using a new technology, opposition by central agencies, difficulties reaching the target group, and public skepticism or opposition.

There are many possible responses to these obstacles. The two most often used in our sample are, broadly defined, persuasion — showing the benefits of an innovation — and accommodation of the concerns of skeptics. Strong-arm tactics were used very infrequently. Successful innovators display an ability to take objections seriously and respond appropriately. Specific sets of tactics are most likely to correspond to each obstacle.

There are a wide variety of potential supporters of innovations from one's own agency, other agencies, the political level, and the world outside, and successful innovators mobilized many of them.

The data from both the U.S. and Commonwealth innovation awards showed that frontline staff and middle managers are the most frequent initiators of public management innovations. This is a surprising result, given the traditional impediments to innovations emanating from that level in the public sector. It leads to the question of how public sector organizations can be made more supportive of such innovations.

There is a consensus on the characteristics of innovative organizations, whether in the private or public sectors. This last section of the report provides the following advice (with examples) to managers who would like to enhance the level of innovation in their organization and who have the authority to do so.

1. **An innovative culture needs support from the top.** It can come in the form of establishing organizational priorities to guide innovation, recognition for innovators, protection of innovators from central agency constraints, and granting the latitude to experiment.
2. **Increased rewards to innovative individuals may include financial compensation — for example, performance-related pay and gain-sharing — or non-monetary awards or recognition.**
3. **Individual innovators made clear that lack of resources for innovations was a serious constraint. One response to this is to establish a central innovation fund to support innovative ideas within the public sector.** Financial management reforms also create the possibility of enhanced internal funding for innovation within all agencies.
4. **Because innovation often depends on the ability to see things differently, diversity in terms of the backgrounds and ways of thinking of an organization's members will enhance its innovativeness.**
5. **Innovative organizations are effective at seeking out information from the outside, for example, by benchmarking, making site visits, and participating in professional networks.** They are also effective at sharing this information internally.
6. **Innovative organizations draw ideas from people at all levels.**
7. **Innovative organizations are effective at experimenting and evaluating their experiments.** They recognize that failures are possible, and have lowered the cost to their staff of honorable failures. They continue with their successes and discontinue their failures.

Introduction: The Case for Change^{*}

With the rapid development of information technology driving one of the strongest periods of economic growth in American history, it is not surprising that management practitioners and scholars have become very interested in innovation. In recent years, gurus such as Rosabeth Kanter and Tom Peters have written on the subject, while the latest in a long line of best-sellers about business innovation is Gary Hamel's *Leading the Revolution* (2000).

Interest in public sector innovation has also grown substantially in the last 15 years. The origins of this trend are very different, however, with the launch of major public management innovation awards by a number of non-governmental organizations being the important catalyst. These awards shared two key objectives: countering media criticism of and political hostility to the public service and encouraging the development and dissemination of innovations within the public sector. The best known award in the United States is the Ford Foundation's Innovations in American Government program, administered by Harvard University's Kennedy School of Government (Ford-KSG awards). It was

initiated in 1986 for state and local governments, and included the federal government for the first time in 1995.

What follows is a set of recommendations for aspiring public management innovators, practical advice for practitioners based on extensive research regarding the best applications in both the Ford-KSG awards and a major award program for countries in the Commonwealth. We'll consider the implications of rigorous statistical analysis and look in detail at a range of exemplary international cases. While this body of research focuses on individual initiatives, it also reveals a number of organizations producing a steady stream of innovations. How did they do it? We'll analyze their key features to define the characteristics of an innovative public sector organization.

We begin by clarifying our central term. Academic literature on innovation has traditionally distinguished between invention, the creation of a new idea, and innovation, the adoption of an existing idea by an organization. Strictly speaking, an invention would be patentable whereas an innovation would not. Increasingly, both popular and academic usage elides the distinction between the two terms. In a business context, it is not uncommon for one firm to modify another's invention or to come to market later with a more user-friendly product. The follower may even become more popular than the leader: VHS has long since pushed Beta out of the market. Is the more successful follower, then, an

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invention or an innovation? More and more, the term “innovation” is being used to refer to *all* creative activity undertaken within organizations.

How do the public and private sectors compare in their attitudes toward creativity? In many countries government and business are working together to build institutions that encourage private sector innovation, especially in areas like information technology. Mechanisms to protect intellectual property rights such as patents, copyrights, and the registration of web addresses are designed to enable innovative firms and individuals to profit from their creativity. Venture capital provides a dynamic and readily available source of funding to seed innovative initiatives, while compensation through share ownership enables startup firms, their investors, their employees, and, increasingly, their suppliers to reap large financial rewards from this activity.

Contrast this with the traditional situation in the public sector. Innovations developed by public servants in the employ of government are generally government property. Public sector organizations are funded by legislative appropriations; there are no venture capitalists to seed public management innovations. There is no share ownership in the public sector, and public servants are paid fixed salaries, with bonuses that, at best, are minuscule in comparison to those in the private sector. In other words, the rewards for successful innovations in the public sector are meager.

On the other hand, the consequences of unsuccessful innovation are grave. The media and opposition parties are always eager to expose public sector failures and pillory the public servants involved, with potentially disastrous effects on their careers. Additionally, the stringent central agency controls that governments put in place to minimize corruption and ensure due process also serve to constrain the innovativeness of public servants. Taken together, these asymmetric incentives and external constraints make the public sector a far less fertile ground for innovation than the private. And they further compound the problem by leading to adverse selection — that is, to innovative individuals rejecting careers in the public sector precisely because of its hostility to change.

Jones and Thompson (1999) make a similar point applying Peter Senge’s (1990) model of the learning organization to government and showing that government is a flawed learning organization. Extensive and inflexible rules and regulations, an unwillingness to empower employees, complicated and rigid pay and classification systems, and a distaste for risk taking all undermine public servants’ initiative and innovativeness.

In all likelihood, we as a society do not want a public sector that is as unrelentingly innovative as the private sector, nor one that displays the volatility of an Internet startup. Yet it is equally likely that we do want the public sector to be more innovative than it traditionally has been. There are change factors affecting organizations everywhere — advances in information technology, changes in the nature and preferences of the workforce, more demanding customers, and increased global competition — and citizens expect a public sector that can transform itself in response. The question is, how can the public sector be made to do so?

I answer that question first by discussing some results of my research about individual public management innovations, in particular the characteristics of successful innovations and the process by which they were implemented. This information will improve the chances that initiatives will succeed. I then turn from individual innovations to consider how public sector organizations can be induced to deliver more such innovations.

Finding the Best: A Note on Methodology

How were the research results on innovations generated? A brief outline of methodology will explain. Three award programs for public management innovation were used as the source for large research samples that were then subjected to coding and quantitative analysis, described in more detail in the Appendix. Do these samples represent the best innovations? Encompassing awards in the U.S. (Ford-KSG awards), Canada (Institute of Public Administration of Canada, or IPAC, awards), and the countries of the Commonwealth (Commonwealth Association for Public Administration and Management, or CAPAM, awards), the source programs are all well-known in their respective jurisdictions. They

are defined broadly and encourage applications from all policy areas. Expert panels judge on the basis of novelty, impact, and replication or replicability.

The Ford-KSG awards yield the most varied sources of information, including initial questionnaires, a more detailed semifinalist questionnaire, a site visit report by an expert, and an interview. A questionnaire virtually identical to the semifinalist version was sent to applicants to both the CAPAM and IPAC awards programs. To avoid overweighting Canadian responses in the Commonwealth sample, this report uses the statistical results of the Ford-KSG and CAPAM samples only. It quotes completed questionnaires and, for the U.S. sample, expert evaluations of the finalists.

Studies of innovation in both the public and private sectors have generally relied on individual or small sample case studies, or small samples of innovations in a particular region or a specific policy area. In contrast, the research cited in this report uses large samples, many regions of the world, and many policy areas. It is truly representative of the best public management innovations.

Five Innovation Building Blocks

All the applicants in our samples were asked to define what was innovative or distinctive about their initiative. Their responses were varied and multiple, frequently identifying more than one key feature. Quantitative analysis of these responses reveals five building blocks of innovation, proven tools for change. Table 1 presents the characteristics of the innovations as identified by the applicants. The table entries indicate the percentage of the sample displaying a given characteristic in their program. Where responses are closely related, the percentage of the sample displaying one or more related responses (e.g., total systems approach) is provided. Five characteristics stand out as appearing most frequently in the U.S. and both CAPAM samples:

- the use of a systems approach, appearing in approximately 70 percent of the samples in advanced and 60 percent of the sample in developing countries
- the use of new technology, usually new information technology, appearing in between 29 and 57 percent of the samples
- process improvement, appearing in between 35 and 66 percent of the samples
- the involvement of organizations or individuals outside the public sector to achieve public purposes, appearing in approximately 30 percent of the samples
- the empowerment of communities, citizens, or staff, appearing in between 14 and 30 percent of the samples

Building Block One: The Use of a Systems Approach

The systems approach theme became apparent in my original study (Borins 1998, 19-22 and 26-29). I approached the data with my own classification scheme for the characteristics of the innovations, one component of which was partnerships. In coding the applicants' own testimony about what made their programs innovative, I noticed that, while some programs were formal partnerships, other applicants were often referring to a wider range of inter-organizational arrangements. Applicants, particularly in social service programs, often described their innovations as dealing with the whole person, rather than any one problem a person faced. Finally, a third group of applicants emphasized that their programs focused on developing a systemic analysis of how the problem they were attempting to solve interacted with other problems and programs. Thus, the overarching category of systems approach was introduced to encapsulate the three concepts applicants most often expressed. This finding is consistent with contemporary research and practice. For example, Bardach (1998) examined a sample of successful interagency collaborative programs to deduce smart practices in developing and maintaining such arrangements. The Blair government in the United

Table 1: Characteristics of Innovations (percent)

Characteristic	U.S., 1990-98	Commonwealth, Advanced	Commonwealth, Developing
Systems analysis	39	25	37
Coordinates organizations	38	41	22
Multiple services	27	36	7
Total systems approach	69	68	59
Use of information technology	29	57	37
Faster process	32	59	33
Simpler process	7	25	11
Total process improvement	35	66	37
Uses incentives, not regulation	10	20	11
Uses private, voluntary sectors	21	16	22
Uses volunteers	7	4	7
Total non-gov't involvement	30	29	33
Empowerment	28	14	30
New management philosophy	15	18	30
Changes public attitudes	11	14	19
Total (percent)	217	266	245
N	321	56	27

Notes:

N = number of observations.

Table entries are the percentage of a given group displaying a particular characteristic.

For example, the "39" in the first cell of the first column means that in 39 percent of the 321 innovations in the U.S. sample from 1990 to 1998, the innovators claimed that one of the characteristics of their program was that it was based on a systems analysis of a problem. Totals add to more than 100 percent because some innovations had several characteristics.

Total systems approach = uses a systems analysis of a problem or coordinates organizations or provides multiple services to clients.

Total process improvement = faster process or simpler process

Total non-governmental involvement = uses incentives, not regulation or uses private or voluntary sectors or uses volunteers.

Because a single response to the questionnaire might include several of the responses in a group, group totals are less than the arithmetic sum of the responses in the group (e.g., total systems approach is less than systems analysis + coordinates organizations + provides multiple services).

Kingdom has been espousing "joined-up government," which refers to both integrated frontline service, often facilitated by information technology (IT), as well as interdepartmental policy development to respond to interrelated social problems.

This is also evident in the literature on private sector innovation. In her review article, Rosabeth Kanter (1988, p. 171) concluded that one of the distinctive characteristics of private sector innovation is that

the innovation process crosses boundaries. An innovation process is rarely if ever contained solely within one unit. First, there is evidence that many of the best ideas are

interdisciplinary or interfunctional in origin Second, regardless of the origin of innovations, they inevitably send out ripples and reverberations to other organizational units, whose behavior may be required to change in the light of the needs of innovations, or whose cooperation is necessary if an innovation is to be fully developed or exploited.

Three international examples illustrate the varying levels of complexity and comprehensiveness of the samples' organizational partnerships and cooperative arrangements. The first example shows a program that crosses organizational boundaries, while the second and third illustrate more ambitious

attempts to deliver a wide range of services through a single portal.

- South Africa's **Working for Water** program combines environmental protection with employment creation. The program's objective is to clear 25 million acres (over 8 percent of the country) that are covered by invasive non-native plants. The work is very labor-intensive, and has been used to create jobs for marginalized groups such as the rural poor, women, the disabled, youth, and ex-offenders. Managing the program requires a partnership among the Departments of Environmental Affairs, Agriculture and Land Affairs, and Water Affairs and Forestry, all responsible for the program's technical base; the Departments of Education and Welfare, responsible for program participants; and a variety of community organizations and entrepreneurs who serve as contractors. This program brings into contact departments that normally have few dealings with one another (South Africa Department of Water Affairs and Forestry, 2000). Working for Water won one of two silver awards in the 2000 CAPAM awards program.
- In April 1999, the government of Singapore launched **eCitizen** (www.ecitizen.gov.sg), its comprehensive website for the delivery of public services online. The site is organized around life events, rather than the current departmental structure. Thirty agencies are now offering a total of over 100 services through this site, which receives 100,000 visitors per month, approximately 10 percent of potential clientele. The United States Office of Intergovernmental Solutions has cited eCitizen as a leader in integrated service delivery, and eCitizen won one of three bronze awards in the 2000 CAPAM awards program (Infocomm Development Authority of Singapore, 2000).
- **Centrelink** is an agency of the Australian federal government with a mandate to provide a wide variety of services (income support, job training, pensions, student grants) on behalf of nine government departments. It serves 6 million of Australia's population of 19 million and pays A\$45 billion (US\$25 billion) in benefits. It has an operating budget of A\$1.6 billion

(US\$.9 billion), and 24,000 staff in 400 locations. Establishing Centrelink was a key ministerial priority of the current government, which wanted to separate policy making from operations to allow the operational agency to focus on increasing efficiency and improving service delivery. Centrelink is funded on the basis of partnership agreements with its client departments, and its chief executive reports to a board of management with representatives of industry and of its two largest client departments (Centrelink, 1999). With a clear service delivery mandate, Centrelink has produced an efficiency dividend of approximately A\$100 million in 1998-99, while enhancing customer satisfaction. It is also in the process of implementing one-to-one service, with each customer assigned to a specific service officer (Centrelink, 2000). It was a finalist in both the 1998 and 2000 CAPAM awards program.

Centrelink and eCitizen present two very different starting points for large-scale service integration. The Australian government established an integrated service delivery organization by undertaking a major departmental reorganization. Centrelink's focus on service delivery and producing efficiency dividends drives it to make increasing use of information technology. On the other hand, Singapore began service integration by establishing a comprehensive website, and gave departments the option of buying in. A large number of departments have already done so. The open question is whether technology will then drive organizational structure and lead to reorganization.

Building Block Two: The Use of Information Technology

Information technology (IT) innovations appeared in the 1990 to 1994 U.S. and Canadian samples as ingenious applications devised by middle managers with technical backgrounds who saw opportunities of which politicians and agency heads were unaware. Consider an Australian example. A decade ago, the government of New South Wales set up a judicial commission to investigate inconsistencies in sentencing. As a result, a database operating on mini-computers was established, but it proved to be both cumbersome and unreliable.

In late 1994, an information systems manager, an analyst, and a programmer at the judicial commission came up with the idea of moving the database to an intranet. Using a very early version of Netscape as their browser, they programmed the original system; its successor is widely used and has had a significant impact on the sentencing practices of Australian judges and magistrates (Judicial Commission of New South Wales, 2000).

Awareness of IT's potential has become more widespread in the last five years, especially at the senior level. This change likely explains why the U.S. sample, two-thirds of which consists of innovations from 1990 to 1994, contains a smaller percentage of innovations involving IT than the CAPAM sample, which was taken in 1998 and 2000. For example, the 2000 CAPAM sample included 13 responses from Singapore, almost all of which used IT as a major component.

The later technology-based innovations are large projects that entail extensive transformation of the manner in which agencies conduct their business. Some involve the creation of new information systems that have a powerful impact on how an organization does its work. Three of the winners of the 1996 Innovations in American Government Awards demonstrated this transformative effect.

- The **New York Police Department** began producing comprehensive crime statistics on a precinct-by-precinct basis in a timely manner. This geographic information system is used in regular meetings in which the department's senior managers ask precinct commanders to explain recent trends. Precinct commanders are being given increased autonomy to develop local solutions and are being held accountable for local results (New York Police Department, 1996).
- The **United States Department of Housing and Urban Development** consolidated and rationalized the management of a wide variety of community development management programs. Underlying this reform is the development of geographic information system (GIS) mapping software that enables the department and its clients to see the interaction of programs and projects locally, with the objective of improv-

ing planning and decision making (U.S. Department of Housing and Urban Development, Office of Community Planning and Development, 1996).

- The **Federal Emergency Management Agency**, as part of a management turnaround in the early 1990s, developed its Consequences Assessment Tool Set (CATS), a set of computer models and databases that can be used to predict the impact of disasters, determine the appropriate response needed, and set in motion the logistics of the response (Federal Emergency Management Agency, 1996). The site visit report concluded that "one could almost say that CATS is to emergency management what radar is to flying" (Smith, 1996).

Websites did not feature as prominently in the samples of IT innovations as might have been expected. The explanation for their absence is simple. The spread of Internet technology virtually overnight in 1994 and 1995 meant that it became standard practice for departments to establish informational websites. The websites that did win awards were those that pushed forward the boundaries of integrated service delivery, such as Singapore's eCitizen, or those that reached out to communities in unique ways.

An example of the latter is Canada's SchoolNet (www.schoolnet.ca). This site provides content to accompany a joint federal-provincial initiative that connected all 16,500 Canadian schools to the Internet by 2000. SchoolNet is also used by educators and students throughout Canada to disseminate Internet-based educational resources they have developed (Industry Canada, Information Highway Applications Branch 1998). It was chosen as one of the two winners of the CAPAM bronze award in 1998. Schoolnet is supported by Industry Canada's Computers for Schools Program (www.schoolnet.ca/cfs-ope) that funds the refurbishing of surplus government and other computers for use in schools. The program has benefited from the contributions of numerous partners, such as the Telephone Pioneers, an organization of retired telephone company employees who do much of the work; Microsoft, which provides free software; Sears Canada, which solicits private sector donations of computers; and Canadian National, which does the shipping (Industry Canada, Computers for Schools Program, 2000).

Information technology projects in developing countries often involve “leapfrog” technologies, a signal example being Grameen Telecom, one of two bronze prize winners in the 1998 CAPAM awards. The Grameen Bank received a license from the government of Bangladesh to develop and operate a cellular telephone service in rural villages. Cellular telephones — operated on a pay-phone basis by local women — are provided for villages that previously had no telephone service at all. Establishing a cellular phone system is much less expensive than building land lines. It delivers numerous benefits such as information for farmers about market prices for their crops, contact with the outside world in the event of natural calamities such as floods, employment for the women operating the pay phone, and communication with relatives working overseas (Latif, 1999). Grameen Telecom may well be a model for the provision of wireless Internet access to villages in the developing world.

Information technology systems in government are large and expensive, and experience has shown that some systems have been costly and disastrous failures. As a consequence, we can expect to see meta-innovations, namely innovations in the management of the public sector’s information technology. One early example is New York State’s Center for Technology in Government, a research center based at the State University of New York at Albany, with a mandate to study what does and doesn’t work and to develop low-cost prototypes of high-cost systems (State University of New York at Albany, 1995). It was a winner of the Innovations in American Government Awards in 1995.

Building Block Three: Process Improvement

The third characteristic frequently observed — process improvement — refers to innovations designed to make governmental processes faster, friendlier, or more accessible. These initiatives often involved applications of the Pareto rule (20 percent of the cases are responsible for 80 percent of the workload, and conversely) to separate the few complicated cases from the many uncomplicated ones; separation of high and low value users through user pay mechanisms such as electronic toll roads; voluntary compliance, especially in the

regulation of business; and alternative dispute resolution. Voluntary compliance and alternative dispute resolution initiatives start with a recognition that judicial processes are expensive, adversarial, and time-consuming, and look for ways to streamline or circumvent them.

The Ford-KSG awards provide many examples of process improvements.

- **Applying the Pareto rule.** The Pension Benefit Guaranty Corporation has the mandate of insuring private pension plans. In allocating its limited staff resources, the corporation set a priority of monitoring most closely the largest underfunded pension plans — one percent of the plans in its pool that were responsible for 80 percent of its exposure. These plans received intensive monitoring, involving research on corporate performance and frequent contact with senior financial officers. Smaller and fully funded plans are monitored less frequently. This Early Warning Program won an Innovations in American Government Award in 1995 (Pension Benefit Guaranty Corporation, 1995; Donahue, 1999).
- **User pay mechanisms.** Information technology has made it possible to charge user fees with minimal transaction cost. An example is the use of electronic toll mechanisms (onboard transponders and electronic readers) for highways. Tolls enhance economic efficiency by allowing those users most willing to pay to reduce travel time, and provide revenues to cover the toll roads themselves and/or fund other improvements in the transportation system.

California’s State Route 91, a finalist in the 1997 awards, is a 10-mile, four-lane, electronic toll road built in the median of the Riverside Freeway in Orange County. It is restricted to vehicles using transponders (California Department of Transportation, Office of Public/Private Partnerships, 1997). The Canadian province of Ontario built a technologically more sophisticated toll road, Highway 407, on the outskirts of Toronto. Unlike State Route 91, which runs for 10 miles and has entrances and exits only at the ends, Highway 407 is 40 miles long, with entrances and exits every mile or two. If cars do not have transponders, the license plates are

video-imaged and the bill sent to the owner. Highway 407 was privatized in 1999.

- **Voluntary compliance.** The U.S. Department of Labor has too few inspectors to enforce minimum wage and labor standards legislation in the thousands of garment factories throughout the country. In the mid-'90s, it adopted a different strategy, namely pressuring the large retailers to ensure that their subcontractors were following the law. The department did this by calling retailers' attention to a clause of the Fair Labor Standards Act prohibiting interstate commerce in goods made in violation of labor laws, then signing agreements with retailers who were willing to monitor the wages and working conditions of their suppliers, and publicizing which retailers were in compliance. This campaign to eradicate sweatshops by using an understanding of the dynamics of the fashion industry to develop a voluntary compliance strategy won an Innovation in American Government Award in 1996 (U.S. Department of Labor, Wage and Hour Division, 1996; Donahue, 1999).

Building Block Four: The Involvement of the Private or Voluntary Sector

The fourth characteristic of the innovations — using the private or voluntary sectors to achieve public purposes — included initiatives opening up some public sector activities, such as municipal services or military supply, to private sector competition; partnerships entailing private sector delivery, particularly in the area of technology; the use of voluntary or non-governmental organizations for program delivery; and, occasionally, the involvement of individual volunteers in public sector programs. The following are a few among many possible examples:

- **Opening up the public sector to private sector competition.** As a result of shortcomings in the military supply system exposed during the Gulf War, the U.S. Department of Defense decided to give all branches of the military increased discretion over their purchasing decisions. The threat of private sector competition was taken seriously by the Defense Logistics Agency's

Defense Supply Center, which previously was a monopoly provider of support services such as food, clothing, and medicine. As a result, the agency underwent a complete reinvention, with innovations being driven by frontline staff and middle managers. Its initiatives included online ordering, faster delivery, purchasing in bulk, benchmarking private sector retailers, partnerships with the private sector, and elimination of rigid military specifications (Defense Logistics Agency, 1995; Donahue, 1999). This transformation won an Innovations in American Government award in 1995.

- **Partnerships involving private sector delivery.** The Province of Ontario has used private sector delivery extensively in the last decade. This is due in part to fiscal necessity (the province was running substantial deficits for most of the decade) and because many of its innovations involved leading-edge information technology. The technology for Highway 407 was supplied by a consortium of companies including Hughes Aerospace, which provided the transponder reading and video-imaging hardware; Bell Canada, which provided the billing software; and two transponder manufacturers. The province developed a system of electronic kiosks for automobile-related transactions such as renewing licenses and paying fines. The kiosks are provided and serviced by IBM, which is compensated by a \$1 fee for every transaction. Ontario is also developing a leading-edge geographic information system for its land titles system in a joint venture between the government and several software companies (Ontario Public Service, Restructuring Secretariat, 1999). This package of innovations, under the rubric of "Ontario Delivers," won one of two CAPAM gold awards in 1998.
- **Involving volunteers.** As noted earlier, retired telephone company employees have played a major role in refurbishing computers for use in Canadian schools. One of the applications to the 2000 CAPAM awards receiving an honorable mention was Project Ilima, an initiative to repair schools in the Pietermaritzburg Region of the South African province of KwaZulu-Natal. Ilima is a Zulu term, referring to a traditional custom of voluntary community help for those in need. Because the government had no

funding available for school repairs for at least three years, communities volunteered labor and materials to repair schools. The program also solicited private sector donations of materials in major cities, and the South African Air Force delivered the materials to remote schools (Province of KwaZulu-Natal, Pietermaritzburg Region, 2000).

Building Block Five: The Empowerment of Communities, Citizens, or Staff

Empowerment, the fifth of our tools for change, may take a number of forms. Initiatives directed at community groups or citizens involved consulting with them in policy making or inviting them to play a role in policy implementation. Staff empowerment involved encouraging frontline staff to take the initiative for change and showing greater tolerance for risk taking. The “new management philosophy” category in Table 1 encompasses initiatives such as participatory management, continuous improvement, and restructuring. It has some overlap with staff empowerment. We’ll look more closely at this issue in our consideration of innovative public sector organizations.

The CAPAM awards demonstrated numerous community empowerment initiatives in developing countries. The Education Guarantee Scheme in the Indian state of Madhya Pradesh was the other gold award winner in 1998. The objective of the scheme is to provide schooling for children of socially underprivileged groups in one of India’s poorest regions. As soon as a village demonstrates that it has a group of at least 25 children who do not have access to a school within one kilometer, the state government will provide a salary and training for a local teacher as well as educational materials. The village’s responsibility is to provide a facility, mobilize the children to attend school, and manage the school, for example, by establishing a school year consistent with local agricultural practices. This educational partnership between the state government and local communities rapidly expanded access to schooling in Madhya Pradesh, and became the model for a national program (Rajiv Gandhi Shiksha Mission, 1999). In April 2000, the program established a website called www.fundaschool.org, which enables people

throughout the world to support one of the program’s 26,000 schools for a year at a cost of US\$400.

The initiators of the program were two younger officers in the elite Indian Administrative Service (IAS). Members of the IAS spend their first developmental assignment as senior administrators at the local level (Borins, 1999). A number of other applications from India were also initiated by IAS members in such positions, suggesting that these assignments give them the latitude to innovate.

These characteristics of public management innovation should be thought of as building blocks for public management innovators to use in designing their programs. Mathematically, there are a very large number of ways that the five building blocks and their subcomponents can be arranged. Many of the most interesting innovations came about when the originators were faced with a complicated problem and then fashioned a multi-faceted response.

A systems approach, new technology, process improvement, external involvement, and empowerment — these are the conceptual tools for innovation revealed by my large sample of international studies of successful public sector innovations. As tools, they are both flexible and scalable, transcending particular policy areas and even national public service structures and cultures. They offer public management innovators a framework for thinking about change, as well as a repertoire of techniques for effecting it, independent of the particular problem, challenge, or opportunity faced.

Winning Hearts and Minds: Implementation Techniques

Obstacles to Innovation

Designing an innovation is only the beginning. Securing its implementation can be no less challenging. In this section, we'll examine in detail the range of obstacles our sample of innovators encountered and the means they used to overcome them. The U.S. and CAPAM questionnaires also asked the innovators who their strongest supporters were, while the CAPAM questionnaire asked what they had learned from designing and/or implementing their program and what advice they would have for those who follow in their footsteps. We'll consider the implications of this data, too. Table 2 outlines the obstacles that were identified, and compares the relative frequency of occurrence for the total U.S. and total Commonwealth samples. The two Commonwealth sub-samples (especially the 27 cases in developing countries) were too small to be presented separately.

The obstacles reported were divided into three groups. The first, consisting of barriers arising primarily within the bureaucracy, included hostile or skeptical attitudes, turf fights, difficulty coordinating organizations, logistical problems, difficulty maintaining the enthusiasm of program staff, difficulty implementing a new technology, union opposition, middle management opposition, and public sector opposition to entrepreneurial action.

The second group identified obstacles arising in the political environment, for example, inadequate

funding or other resources, legislative or regulatory constraints, and political opposition. One obstacle with both bureaucratic and political aspects is inadequate resources, which can result from funding decisions made at either the bureaucratic or political levels.

The third group addressed obstacles in the environment outside the public sector, such as public doubts about the effectiveness of the program, difficulty reaching the program's target group, opposition by affected private sector interests, public opposition, and opposition from private sector entities that, as a result of the innovation, would be forced to compete with the public sector.

The three groups of obstacles appear with similar frequencies in both the U.S. and Commonwealth samples. The largest number of obstacles arose *within* the public sector, reflecting the tendency of these innovations to change standard operating procedures, occupational patterns, and power structures. Many instances of obstructive attitudes were cited, particularly on the part of occupational or professional groups. Police officers were sometimes opposed to a community policing initiative because it required them to do what they considered to be "social work." Health professionals opposed initiatives that employed community health workers or advocates in outreach programs. A voluntary action-learning based network of teachers in Singapore has been resisted by officers

Table 2: Obstacles to Innovation

Obstacle	U.S. 1990-98, Occurrences	U.S., % of total	Commonwealth, Occurrences	Commonwealth, % of total
Bureaucratic attitudes	66	9.2	16	9.6
Turf fights	12	1.7	5	3.0
Other resistance	50	6.9	11	6.6
Total bureaucratic	128	17.8	32	19.3
Coordination problems	66	9.2	18	10.8
Logistics	66	9.2	24	14.5
Burnout	38	5.3	2	1.2
Implementing technology	39	5.4	15	9.0
Union opposition	13	1.8	5	3.0
Mid-mgt. opposition	11	1.5	4	2.4
Opposition to entrepreneurs	6	.8	4	2.4
Total Internal	367	50.9	104	62.7
Inadequate resources	113	15.7	32	19.2
Laws, regulations	48	6.7	7	4.2
Political opposition	21	2.9	6	3.6
Total Political	182	25.2	45	27.1
External doubts	70	9.7	9	5.4
Reaching target group	49	6.8	2	1.2
Affected interests	28	3.9	2	1.2
Public opposition	13	1.8	2	1.2
Private sector competition	12	1.7	2	1.2
Total External	170	23.6	17	10.2
Total	721	100	166	100

Note: Each occurrence is unique, so each subtotal is the sum of previous elements and the total percentage is 100. Total includes total internal, total political, and total external.

in the Ministry of Education, who consider it a challenge to their authority (Singapore Ministry of Education, 2000). To generalize, programs requiring professions normally having little contact to work together; programs requiring professions to do something not traditionally viewed as within their scope; and programs using volunteers, community workers, or para-professionals have often been opposed by professional groups (Borins 1998, 67 and 288). Surprisingly, given the traditional barriers to innovation in the public sector, the internal obstacle encountered least frequently was opposition to acting entrepreneurially, which constituted less than one percent of the occurrences in the U.S. sample and 2.4 percent of the occurrences in the Commonwealth sample.

Under political obstacles, the one most frequently appearing was lack of resources. This can be explained by the fact that many of the innovations studied were pilot programs that were looking for additional resources to increase their scale of operations. Legislative or regulatory constraints occurred when an innovator was hampered by existing legislation or regulations that had been enacted previously, for other reasons. The least frequently appearing political obstacle was opposition from elected politicians. The infrequency of political obstacles may mean that bureaucratic innovators are working far enough from the political level that their work largely escapes notice by politicians. Jerry Mechling, the director of the Strategic Computing Program at the Kennedy School of

Identifying Obstacles

Identifying these obstacles in detail enables us to formulate a list of questions for innovators 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?
- What are the occupational groups that will be involved in delivering the program? How do they define their roles? What are the status relationships among the different occupations (e.g., professionals versus paraprofessionals)? Will cooperation of different organizational groups depend on understanding one another and/or on being able to do some aspects of each other's work?
- 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?
- Innovations sometimes require help from volunteers, especially if funding is limited. If volunteers are to be used, how will they be motivated to participate and how will their efforts be rewarded?
- Will the innovation create logistical problems, for example, scheduling conflicts among different participants?
- 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 difficulties in reaching the innovation's target group — for example, because they do not use the official language, because they have special needs, or because they are unreceptive to those normally mandated to deliver the service?
- 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?
- Will the program face opposition from private sector firms because it regulates their activities in ways that reduce their profitability or forces them to abandon a line of business?
- Will the program face opposition from private sector firms because it introduces public sector based competition?

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.

Government, recognized the significance of initiatives below the political level in a site visit report to a program involving optical imaging technology in the City of New York:

Significant reforms in government often begin as ‘middle out’ initiatives — that is, as agenda items that are not at the very top in terms of public discussion and controversy, but ride just below and, due to the persistence of managerial leadership, create major benefits. The ‘middle out’ approach is not as threatening as more visible and aggressive reforms, but in some cases it can be extremely effective on a cumulative basis (Mechling, 1997).

On the other hand, if these innovations are noticeable at the political level, the innovators may understand what is and is not politically feasible and gauge their actions accordingly, forestalling political intervention or obstruction. The U.S. sample examined the frequency with which those political obstacles that were experienced were overcome, and found, encouragingly, that they were overcome approximately 70 percent of the time (Borins 1998, 67).

The third set of obstacles — external obstacles — includes difficulties reaching the program’s target population, public doubts about a program, and more active public opposition. The U.S. sample showed that external doubts were overcome 90 percent of the time and public opposition approximately 60 percent of the time (Borins, 1998, 67). These numbers tell us something very important about the social context for public sector innovation. The infrequency of both political and public opposition — and the substantial frequency with which any that did arise was overcome — suggests that the public recognizes that the performance of the public sector can be enhanced and that policy outcomes in many areas can be improved. It further indicates that the public is not wedded to existing policies or procedures, and is receptive to innovation and change.

Overcoming Obstacles

Table 3 shows various tactics that were used to overcome the obstacles to innovation and the number of times each was cited for both the U.S. and

Commonwealth samples. As was the case for the obstacles themselves, the tactics appear with similar frequencies in both samples. The tactics most commonly used could be described broadly as *persuasion* — showing the benefits of an innovation, establishing demonstration projects, and social marketing — and *accommodation* — consulting with affected parties, co-opting affected parties by involving them in the governance of the innovation, providing training for those whose work would be affected by the innovation, compensating losers, and making a program culturally or linguistically sensitive. The innovators took objections seriously, and attempted either to change the mind of opponents or skeptics, or to modify the innovation so that opponents or skeptics would be more comfortable with it.

It is instructive that the tactic used least frequently in both the U.S. and Commonwealth samples was something that might be considered a “power politics” approach — changing the manager responsible for program implementation. The innovators usually attempted to persuade or accommodate their opponents, rather than to appeal to the authority of superiors simply to stifle them. These successful change agents overwhelmingly employed consensus building rather than strong-arm tactics.

For both the U.S. and Commonwealth samples, obstacles identified were matched with the tactics reported for overcoming them. The results are presented in Table 4, which indicates up to five tactics used most frequently to respond to each obstacle. The Commonwealth results are not always presented because some obstacles appeared very infrequently. As in the previous two tables, the responses to each obstacle are similar in both samples. The most frequent responses to bureaucratic opposition in the U.S. sample were consultation or co-optation (in 37 percent of these 98 instances), provision of training (in 26 percent of these instances), persistence (24 percent), showing the benefits of the innovation (23 percent), and establishing a demonstration project (15 percent). Similarly, the most frequent responses in the Commonwealth sample were consultation or co-optation and a demonstration of the benefits of the innovation. When the obstacle was difficulty coordinating organizations, something often faced by systems approaches, the most frequent response

Table 3: Tactics to Overcome Obstacles to Innovation, Total Frequency Used

Tactic	U.S., number of cites	U.S., percent of total	Commonwealth, number of cites	Commonwealth, percent of total
Show benefits of program to opponents	73	9.6	34	16.8
Social marketing	52	6.8	4	2.0
Demonstration project	41	5.3	2	1.0
Total persuasion	166	21.8	40	19.8
Training affected parties	76	10.0	16	7.9
Consultation with affected parties	75	9.9	9	4.5
Co-optation (opponents become participants in program)	60	7.9	18	8.9
Program design made culturally or linguistically sensitive	16	2.1	1	.5
Compensation for losers	11	1.4	1	.5
Total accommodation	238	31.3	45	22.3
Finding additional resources	72	9.5	19	9.4
Persistence, effort	69	9.1	8	4.0
Logistical problems resolved	52	6.9	11	5.4
Other	36	4.7	44	21.8
Gaining political support, building alliances	36	4.7	3	1.5
Focus on most important aspects of innovation, have clear vision	27	3.6	5	2.5
Modify technology	26	3.4	20	10
Legislation or regulations changed	20	2.6	6	3.0
Provide recognition for program participants or supporters	9	1.2	0	0
Change managers responsible for program implementation	8	1.1	1	.5
Total	759	100	202	100

Note: Each occurrence is unique, so each subtotal is the sum of previous elements and the total percentage is 100.

for both the U.S. and Commonwealth samples was consultation or co-optation. Other frequent responses for the U.S. sample were focusing all parties' attention on the most important aspects of the innovation (15 percent) and providing training (12 percent). The most frequent responses to difficulty implementing a new technology for both samples were modifying the technology to make it more user-friendly and training for those who would be using it.

The most frequent response to legislative or regulatory constraints was an attempt to change the legislation or regulations to permit the innovation (27 percent in the U.S. and 57 percent in the Commonwealth sample). Frequent responses in the U.S. sample also included building political support for the innovation (19 percent) and persistence (15 percent). Political opposition was most frequently overcome in the U.S. sample by building political support for the innovation (33 percent),

Table 4: Tactics Most Frequently Used to Overcome Each Obstacle to Innovation

Obstacle	Sample (n)	Tactic 1 (%)	Tactic 2 (%)	Tactic 3 (%)	Tactic 4 (%)	Tactic 5 (%)
Total Bureaucratic	U.S. (128)	Consult, Co-opt (37)	Training (26)	Effort (24)	Show benefits (21)	Demo. Project (15)
	CAPAM (32)	Consult, Co-opt (31)	Show Benefits (21)			
Coordination	U.S. (67)	Consult, Co-opt (52)	Focus (15)	Training (12)		
	CAPAM (18)	Consult, Co-opt (25)				
Technology	U.S. (39)	Modify (29)	Training (31)			
	CAPAM (15)	Modify (73)	Training (13)			
Inadequate Resources	U.S. (113)	Find Resources (44)				
	CAPAM (32)	Find Resources (44)				
Laws, Regs.	U.S. (48)	Change Laws (27)	Political Support (19)	Persistence (15)		
	CAPAM (7)	Change Laws (57)				
Political Opposition	U.S. (21)	Pol. Support (33)	Effort (24)	Show Benefits (19)	Demo. Project (14)	
	CAPAM (6)	Show Benefits (83)	Effort (33)			
External Doubts	U.S. (70)	Consult, Co-opt (40)	Show Benefits (29)	Marketing (21)	Demo. Project (16)	Effort (16)
Reaching Target Group	U.S. (49)	Mktg (37)	Training (19)	Effort (14)	Culturally Sensitive (12)	
Affected Interests	U.S. (28)	Show Benefits (36)	Consult, Co-opt (22)	Marketing (18)		
Public Opposition	U.S. (13)	Consult, Co-opt (31)	Demo. Project (17)	Marketing (9)	Political Support (9)	

Notes:

Obstacles are as listed in Table 2 and tactics are as listed in Table 3.

N indicates the number of occurrences of each obstacle in either the US or the CAPAM samples.

The five most frequently used tactics to overcome each obstacle are listed in declining order of frequency.

Percentages for each tactic indicate the percentage of the occurrences of each obstacle for which a given tactic was used.

persistence (24 percent), demonstrating the innovation's benefits (19 percent), and the establishment of a demonstration project (14 percent). In the U.S. sample, public doubts were most frequently overcome by consultation or co-optation (40 percent), demonstrating the benefits of the program to opponents or skeptics (29 percent), social marketing (21 percent), establishing a demonstration project (16 percent), and persistence (16 percent).

Overall, the responses to the obstacles raised show that the innovators took objections seriously and attempted to meet objectors on their own terms. They did not necessarily view opposition to change as negative or an invitation to conflict. Rather, they interpreted resistance as a challenge to communicate their message more clearly and to improve the design of their programs. Within this generally constructive approach, the specific tactics employed were tailored to each obstacle.

Table 5: Supporters of Innovations (percent)

Type of Supporter	U.S., 1990-98	Commonwealth, Advanced	Commonwealth, Developing
Direct supervisor	20	7	0
Permanent agency head	27	25	22
Middle managers	23	25	19
Frontline workers	n.a.	25	15
Other upper management, board of directors	24	23	22
Total within agency	62	63	41
Public sector unions	15	11	4
Other public agencies and managers	44	45	41
Total other public sector	53	52	44
Political head of agency	23	7	7
Head of gov't. (president, PM)	40	4	4
Other individual politicians	14	5	15
Legislative body	36	2	15
Total political	67	16	26
Public interest group	37	20	30
Clients of agency	36	48	41
Business lobby	39	34	37
Media	5	0	0
General public	23	9	33
Total external to public sector	78	73	74
N	321	56	27

Notes:

N = number of observations.

Table entries are the percentage of a given group having a particular type of supporter.

Categories in bold represent the percentage of a given group displaying one or more of the previous characteristics (e.g., **Total within agency** = direct supervisor or permanent agency head or middle managers or frontline workers or other upper management or board of directors.)

Obtaining Support for Innovation

In addition to asking about obstacles, the questionnaire asked applicants who their strongest supporters were. Table 5 shows the results for the 1995-1998 U.S. sample, as well as the CAPAM sample. (It was not coded in the earlier U.S. sample.) The table shows supporters within the agency, elsewhere in the public sector, at the political level, and outside the public sector. For each of these four groups, the table shows the percentage of the total number of applications receiving support from one or more of the parties in the group.

The table shows that the innovators received support from a wide variety of sources. In general, the

U.S. and Commonwealth samples look similar, with a substantial percentage of innovators in all three indicating support within their agencies, among other agencies and their managers, and from public interest groups, agency clients, and business interests. The one sharp difference is that in the U.S. sample, two-thirds of the innovations had some support at the political level, while only 16 percent of the Commonwealth sample from advanced countries and 26 percent of the Commonwealth sample from developing countries did. In part this is the result of a higher proportion of innovations being introduced at the political level in the U.S. and at the agency head and management levels in the Commonwealth samples (as

Table 6: Lessons Learned by Commonwealth Innovators

Lesson Learned	Cites
Make project exciting for staff	22
Promote program, ensure positive media coverage	21
Make sure program objectives reflect organization's objectives	17
Project manager should be task-oriented	12
Involve the stakeholders	11
Keep regular, ongoing communication	11
Get support from senior management	10
Have a clear idea of the end product	9
Allow staff freedom to innovate	9
Keep implementation team small, with decision-making power	9
Think strategically, consider wider implications	7
Have a champion, take ownership	7
Be dedicated and/or persistent	7
Documentation is tedious but essential	7
Develop adequate control mechanisms, support governance structure with agreements	6
Solicit regular feedback as a motivator, demonstrate early ongoing success	5
Implement quickly to avoid losing focus	5
Learn from your mistakes, don't be afraid to change plans based on information gathered or in response to a changing environment	5
Learn from other innovators	4
Ensure that you have the necessary resources	3

Note: These lessons were based on the 83 questionnaires received from innovators in Commonwealth countries.

shown by Table 7 in the next section of the report). A second explanation might be that American legislative bodies delegate less to the public service than is the case in Commonwealth countries. Consistently, the two sources least often cited as being among the strongest supporters were public sector unions and the media. The message these results carry for future public management innovators is to consider whose support they should seek as they attempt to overcome the anticipated obstacles.

Included in the Commonwealth survey was a final question asking innovators the most important lessons they had learned and seeking their advice for would be innovators. Table 6 shows the results of this question in terms of the number of times a certain piece of advice was cited. The advice dealing with planning an innovation emphasizes the importance of learning ("learn from other innovators" and "learn from your mistakes") and incorpo-

rates the tension between having a clear vision ("have a clear idea of the end product," "think strategically," and "make sure program objectives reflect the organization's objectives") and improvisation ("don't be afraid to change plans based on information gathered or in response to a changing environment"). The advice regarding implementation reflects the tension between being decisive and moving quickly on the one hand ("the project manager should be task-oriented," "have a champion, take ownership," "keep the implementation team small, with decision-making power," and "implement quickly to avoid losing focus"), and recognizing the need to build wide support ("involve the stakeholders" and "keep regular, ongoing communication") on the other. The advice about process also reflects the importance of staff level innovation ("allow staff freedom to innovate"), of persistence ("be dedicated and/or persistent"), of morale ("make the project exciting for staff") and of upper level

support (“get support from senior management”). The advice includes references to the constraints of operating within the public sector (“documentation is tedious but essential” and “develop adequate control mechanisms”). Given the frequency that resource constraints come up, it is somewhat surprising to see that the least cited piece of advice was “ensure that you have the necessary resources.” While Table 5 showed that the media were almost never cited as being among an innovation’s strongest supporters, the innovators suggest that, once a program is in place, it is important to promote it and secure positive media attention.

Who Innovates? A Challenge to Received Wisdom

The recommendations for designing and implementing innovations that were presented in the previous sections did not discuss where in the organization innovations come from. This section takes up that question. The answer to this question is important, because it bears on the issue of how to design innovative public sector organizations.

Innovation in the public sector has been frequently assumed to come from the top. There are reasonable — even systemic — grounds for the belief. In both presidential and parliamentary democracies, voters elect politicians to enact policies. While in the United States a greater proportion of senior executive appointments are made on a political basis, in many parliamentary democracies the most senior appointments in the public service are made by the politicians. This would seem to place the responsibility — and motivation — for innovation outside the public service itself. (The rationale for the system, of course, is to make the bureaucracy indirectly responsive to the public through the politicians they elect.) In addition, the existence of stringent central agency controls — to minimize corruption and ensure due process — is seen to constrain any interest in innovation public servants might demonstrate. The media's interest in exposing public sector failures (management in a fishbowl) is yet another impediment to innovation. Therefore, career public servants may not be rewarded for successful innovation and will likely be punished for unsuccessful attempts. These asymmetric incen-

tives may well lead to adverse selection, namely, the avoidance by innovative individuals of careers in the public service, further undermining the potential for creative change from within.

That is the received wisdom. The results of all the innovation awards examined tell a different story (see Table 7). In the U.S., approximately 50 percent of the innovations originate from middle managers or frontline staff, 25 percent from agency heads, 21 percent from politicians, 13 percent from interest groups, and 10 percent from individuals outside government. In the sample from the economically advanced countries of the Commonwealth, the proportion from middle managers or frontline staff (82 percent) and agency heads (39 percent) was higher, while that of politicians (11 percent), interest groups (2 percent), and individuals outside government (5 percent) was lower. In developing countries, the results are also similar. Since some respondents gave multiple answers, these numbers sum to more than 100 percent.

Both CAPAM samples and the 1995-98 U.S. data separated middle managers from frontline staff. The U.S. sample found that middle managers were involved in the initiation of 43 percent of the innovations, while frontline staff were involved in 27 percent, the same frequency as politicians (27 percent) and agency heads (28 percent). The CAPAM survey showed that in the economically advanced countries, middle managers were

Table 7: Initiators of Innovations (percent)

Initiator	U.S., 1990-98	Commonwealth, Advanced	Commonwealth, Developing
Politician	21	11	15
Agency Head	25	39	37
Middle Manager	43*	75	44
Frontline staff	27*	39	7
Middle Manager or Frontline staff	51	82	48
Interest group	13	2	11
Citizen	7	0	11
Program Client	3	5	0
Other	6	9	11
Total (percent)	126	148	133
N	321	56	27

Notes:

N = number of innovations

The asterisks indicate that the breakdown between innovations initiated by middle managers and those initiated by frontline staff for the U.S. data was based on the 104 cases from 1995 to 1998. In the 217 cases from 1990 to 1994, these groups were coded together.

involved in initiating 75 percent of the innovations and frontline staff in 39 percent. In the developing countries, middle managers were involved in initiating 44 percent of the innovations, a figure comparable to the 43 percent in the U.S., but frontline workers initiated only 7 percent of the innovations. The latter figure is attributable to the disinclination of developing countries to empower their frontline staff.

While these results are at variance with the traditional understanding of public sector bureaucracy, they are consistent with the conclusions of other innovation scholars. Paul Light (1998, 45) studied 26 innovative nonprofit and small public sector organizations in Minnesota and observed that “almost all of them harvested ideas up and down the organization regardless of who had the idea.” Hamel (2000) presented case studies showing that the inspiration for IBM’s involvement with the Internet came from two middle managers, one a programmer and the other a marketer; that the idea for the development of Sony’s PlayStation video game console came from a mid-level researcher; and that the impetus for Shell to become involved in the production of renewable energy came from a mid-level planner. Peters and Waterman (1982) pointed to innovations undertaken by frontline staff, some of whom were mavericks working at “skunk

works” far from central offices, often operating without a clear mandate from above and using bootlegged resources.

Hamel provides two explanations why innovations are not initiated at the top of corporate pyramids: the long years of experience predisposing those at the top to be emotionally invested in the past, and the absence of diverse points of view at the top. Given that political constituencies differ greatly in their socioeconomic characteristics and that parties of differing ideologies generally alternate power, we would expect politicians to display more diversity than senior managers in the private sector. The problem is that elected officials and political appointees often lack sufficiently detailed knowledge of their area of responsibility to innovate. On the other hand, if a public service consists of careerists right up to the top, as is the case in most parliamentary democracies, it may have the same problem Hamel finds in the private sector.

In both public and private sector organizations, the lower and middle levels contain many younger people who are close to the cutting-edge thinking they encountered in universities. They are also close to day-to-day operations and therefore in a position to apply what they have learned in an innovative way. In addition, at a time when a great

deal of innovation is based on the application of new information technology, it is usually younger people who are most comfortable with it.

This finding — that innovative ideas emerge from all levels of the organization and they may be least likely to flow from the conventionally assumed sources — has important implications. If innovative ideas can come from anywhere in an organization, rather than a senior elite, then organizations will be most innovative if they can stimulate innovation throughout. This thinking is similar to that espoused by the total quality management (TQM) movement, which asserts that ensuring quality is the responsibility of everyone in a company, regardless of their position or level of formal education.

Much of the management literature on leadership deals with the exploits of those who are at the top of organizations. The research I have been conducting has demonstrated many instances of leadership by innovative public servants in middle management and on the front lines. A few examples:

- **Parks Canada's** accessibility program for seniors and people with disabilities was initiated by Robert Fern, a public servant who suffered from diabetes-related visual impairment. He moved from the field to a line position in the head office in Ottawa because of his disability. Once there, he began developing low-budget pilot programs for people with disabilities; among other initiatives, Fern taught a course at the University of Waterloo School of Architecture in which students developed designs to make the nearby birthplace of former Prime Minister Mackenzie King wheelchair accessible. The Canadian Parks Association, a non-governmental organization (NGO), took the best student design and completed the project. Fern convinced both his assistant deputy minister and Parks Canada field staff that enhancing accessibility was both desirable in itself and a good way to increase visits. When the Treasury Board — the Canadian equivalent of the Office of Management and Budget — established a program of funding pilot accessibility projects throughout government, Fern had built momentum for Parks Canada to take advantage of the program (Borins, 2000c).
- The **Texas Department of Human Services** established a Volunteer Interpretation Service

to help clients with limited proficiency in English communicate with the department. The program relies on a network of volunteer telephone interpreters working from their own homes or offices. The program was developed by Sonya Meinert, a departmental caseworker, and was a finalist in the 1995 Ford-KSG awards. The application described Mrs. Meinert as “deeply empathetic with non-English-speaking people because she is a grandchild of immigrants from central Europe and witnessed the difficulties of non-English-speaking people in the U.S. in her own family.” Meinert’s region had a quality improvement committee with a mandate to reduce errors in eligibility determination, giving her initiative a supportive environment. The committee endorsed her proposal and she was given time to start the project. When its success was demonstrated, the position of program coordinator was created for her (Texas Department of Human Services, 1995). The site visit described her as “an organizational pro” who “has the energy of a missionary” and noted that “in the short time [the program] has existed, she has compiled excellent training materials, internal evaluation processes, and a widening base of community support.” (Dunn, 1995).

- After completing a Ph.D. in 1994 in pediatric cardiology at the University of London, Dr. Victor Grech returned to Malta to practice. He established a computerized database for the entire congenital heart disease population in Malta, a total of 1,600 patients. This database was the first described in the medical literature as being used for the long-term treatment of such patients. Dr. Grech also uses the database for research, and has published prolifically in international journals. At the time of his application to the CAPAM award in 1998, the project had not been funded by his hospital or Malta’s National Health Service. It came about solely because Dr. Grech spent his own money on hardware and software and his own energy on learning the necessary technology (Grech, 1999). Dr. Grech exemplifies the public management innovator who invests his own time and effort at the outset in the hope that, after the value of his concept has been proven, organizational support will be forthcoming. His application to the CAPAM award was an attempt to raise the profile of his work.

Supporting Innovation

The cases in the previous section showed the ingenuity and persistence of which frontline public servants are capable. The challenge for senior managers in the public sector is to provide incentives and support to call forth more of the innovation exemplified by Fern, Meinert, and Dr. Grech. This section starts with the premise that, rather than thinking that innovation is their responsibility alone, politicians and agency heads must encourage more innovation from the entire organization, particularly middle managers and frontline staff. What should they do to further that objective?

There has been substantial research on the characteristics of innovative organizations in the private sector. Unfortunately, that research has not been replicated in the public sector. For example, Light (1998, 212) looked for innovative public sector organizations in Minnesota, a state with a long tradition of effective government. He found 26 innovative public sector organizations, but this group consisted of 18 nonprofits and 8 small government agencies. He therefore observed that “although single acts of innovation occur in large government agencies every day, it is difficult to find many such agencies that could be described as innovating organizations. At least in Minnesota, the search for organizations that were large, governmental, and innovating produced an empty set.” There will be large organizations in the public sector for the foreseeable future. The necessity is to find ways to make them more innovative.

The prescriptions that follow for making large public sector organizations more innovative are based

on a number of sources: the literature about innovative private sector organizations, David Osborne and Peter Plastrik’s (2000) recent fieldbook for government reinventors, Light’s work on innovative nonprofits and small public sector organizations, and the handful of organizations that appear sufficiently often in the innovation awards to suggest that they have developed cultures supportive of individual innovations. Two examples of the latter are Ontario’s Ministry of Consumer and Commercial Relations and the U.S. Department of Labor, in particular from 1993 to 1996, when Robert Reich was Secretary.

Support Comes from the Top

A number of innovations undertaken by the U.S. Department of Labor were recognized as finalists and winners of the Innovations in American Government Awards. These include the initiative to eradicate sweatshops by putting pressure on retailers, the Pension Benefit Guaranty Corporation’s early warning program, and a program in the Occupational Safety and Health Administration to proactively identify workplace health hazards among large employers. In terms of the generic characteristics of innovations, these demonstrate process reengineering and alternative service delivery.

While middle managers and frontline staff initiated these innovations, Secretary of Labor Robert Reich played an important supportive role in a number of ways. First, he established the department’s priorities, which included initiatives to improve wages and working conditions for America’s lowest paid

and most vulnerable workers. Second, he made a habit of consulting career civil servants, for example, in quarterly departmental town hall meetings. Third, he took every possible opportunity to recognize staff initiatives (Glynn, 1999). Forms of recognition included establishing departmental innovation awards, bringing his career public servants to meetings with political appointees, and inviting careerists whose ideas had been incorporated into legislation to White House signing ceremonies to meet the President (Reich, 1997). The roof of the Department's office building in Washington, D.C., is an ideal vantage point to watch the Fourth of July fireworks. Previous secretaries always invited political appointees and friends; Reich used these coveted invitations to reward innovative careerists.

The Defense Personnel Support Center in the U.S. Defense Logistics Agency, as discussed previously, has been energized by the threat of private sector competition. The site visit report eloquently described the role the center's top management played in supporting the reinvention efforts of middle managers. It dovetails with the discussion of the efforts of Secretary Reich at the departmental level.

Above all, these mid-level innovators were vitally reinforced, at critical points, by support from top management. Top managers during these years pushed the envelope of what laws and regulations would allow, helped articulate a common sense of mission, gave subordinates the scope to experiment with new ideas, helped draw the connections between similar innovations to create fruitful synergies, and funded the travel, technology, and training that was essential to the realization of the ideas (Zelikow, 1995).

Rewards and Awards for Innovation

A second way of supporting innovation is by rewarding developers of successful innovations. In the private sector, the rewards for successful innovators, in particular through stock options, have been enormous. Hamel (2000, 217) observes that the energy company Enron "has typically given entrepreneurs phantom equity in the new businesses they are helping to create." Such rewards

are now a necessity in the private sector because innovative individuals who are not well rewarded will either start their own businesses or move to a competitor.

The public sector traditionally has not given large financial rewards to its innovative employees. The analogue here to stock options or phantom equity would be merit pay. While some governments have adopted merit pay, the amounts are very small in comparison to the private sector. Even if innovation is not rewarded with merit pay, it could still be recognized, for example, through awards programs. In a recent study of awards and recognition in Canadian governments, I found that the number of awards has been increasingly rapidly in the last decade (Borins, 2000b). These include the following types given specifically for innovation:

- departmental or government-wide achievement awards given to groups or individuals for a number of factors, one of which can be innovation
- innovation awards given by non-governmental organizations, such as the Ford-KSG and CAPAM awards discussed earlier
- gain-sharing awards, such as financial awards given to groups or individuals for implemented cost-saving ideas or royalties given to public servants for inventions made while working for the government

The financial implications of gain-sharing awards are not large. The largest awards for cost-saving ideas are one-time awards of several thousand dollars. The standard approach the government of Canada uses for dividing royalties is 65 percent to the department and 35 percent to the inventor. The largest royalty found was \$70,000, providing an annual income stream of approximately \$25,000 to the inventor. Internal awards for innovation or innovation awards given by NGOs are not financial, but rather involve public recognition. That said, there is a consensus in the private-sector literature that recognition is an effective motivator (Kanter, 1988, 183) and a similar belief in the effectiveness of recognition in the public sector.

Resources for Innovation

My original study measured the frequency with which the various obstacles to innovation had been overcome (Borins, 1998, 67). While the overall success rate was 58 percent, the obstacle that innovators overcame least frequently (at only 19 percent) was inadequate resources. Following that was difficulty maintaining enthusiasm, overcome 45 percent of the time. This suggests that finding resources for public sector innovation is indeed a pressing problem.

Traditionally, the public sector has funded innovation by using budgetary slack or cost savings due to enhanced efficiency. The difficulty with these sources of funding is that they are uncertain. Budgetary control agencies have a mandate to reduce budgetary slack and recapture cost savings. If the public sector wanted to emulate the private sector's ample supply of venture capital, it would create funds that could be used to support innovation. If line agencies were to attempt to do this, they would have to convince the budgetary control agency that this is an appropriate expenditure. An alternative approach would be for the budgetary control agency to create a central fund that could be used to support innovations throughout the government.

Osborne and Plastrik (2000) provide several examples of federal, municipal, and state governments that have created central innovation funds. In some cases, such as Philadelphia and Portland, Oregon, the fund loans money to line agencies with pay-back terms that show an expectation of significant savings (for example, double the amount borrowed in five years in Philadelphia or a three-year pay-back in Portland). In 1993, the Florida Legislature established a \$12 million Innovation Investment Program that funded 38 out of 163 proposals and measured returns in terms of cost avoidance, productivity gains, or new revenues.

The government of Singapore recently created The Enterprise Challenge program. Modeled after Shell Oil's development of an internal capital market for innovative ideas, the Singapore government established a fund with a two-year operating budget of S\$10 million (US \$5.7 million) and a mandate to fund innovative proposals for public services coming either from within government or from outside. The program's secretariat is within the public

service reform and planning unit in the Prime Minister's Office. Projects are chosen by a 15-member board that includes business entrepreneurs, area experts, and senior public servants. By mid-July 2000, 104 projects had been rejected, four had been accepted, and 38 were being nurtured or evaluated (Singapore Prime Minister's Office, Public Service Division, 2000). Along similar lines, the government of Canada's executive development agency, the Canadian Centre for Management Development, is proposing a learning innovation seed fund to sponsor new ideas for service delivery, application of technology, or policy development initiatives in the Canadian federal government (Government of Canada, 2000).

These funds appear to be supporting innovation on a project-by-project basis. One could question whether that is sufficient, and some agencies might establish units whose mandate is to bring about innovation. An example of this is the Technology Department in the U.S. Internal Revenue Service, which one Ford-KSG site visit report described as:

[having] the reputation of being a 'skunk works' in which ideas could be developed and tested without serious repercussions for failure. This was possible because executive leadership within IRS recognized that such an environment must exist within the organization to bring about innovation. (Kelly, 1997)

Public sector financial management reforms being put in place in some jurisdictions create the possibility of enhanced internal funding for innovation. Organizations are being given discretion to charge user fees and keep some of the user fee revenue for their own purposes rather than returning it all to the treasury, to retain some of the cost savings they have achieved due to increased efficiency, and to carry forward unspent balances from one fiscal year to the next.

Diversity and Innovation

Kanter (1988) argues that kaleidoscopic thinking is a good metaphor for the creative process — namely, the ability to rearrange fragments into new patterns and envision a new reality in those patterns. Hamel (2000) refers to this rethinking and reinvention in a corporate context as business concept innovation.

Kanter claims that individuals who are most likely to exercise creative thinking are those who have the best kaleidoscopic vision, that is, those who can bring the richest set of ideas to a given problem. Such breadth of vision can be institutionalized by organizational and job design. Individual jobs that are defined broadly, rather than narrowly, and that give people a mandate to develop a wide range of skills and experience to use in solving problems promote creativity. Workgroups that consist of people with a wide range of backgrounds bring a great diversity of perspectives to problem solving. These approaches are at variance with the traditional public sector bureaucracy, which is characterized by narrowly defined jobs and organizations dominated by individual professions.

Learning from the Outside

The Ontario Ministry of Consumer and Commercial Relations (MCCR) has a number of very traditional transactional responsibilities, such as vital statistics, business and personal property registration, and land titles, as well as some responsibilities for marketplace regulation. In the last decade, however, it has been extraordinarily innovative in its handling of these responsibilities through the early introduction of new information technology, the establishment of teams of multi-skilled workers, a partnership with the private sector to convert land title records to a geographic information system, and industry self-regulation. It was a key player in the "Ontario Delivers" package, mentioned earlier, that has won numerous innovation awards, including the CAPAM gold award in 1998.

What is this organization's secret? When the Ontario government was running large deficits early in the decade, MCCR, like other departments, was under fiscal pressure to increase user fees and reduce costs. MCCR's creative responses came from middle management. While it had changed ministers and deputy ministers quite frequently, it had a team of assistant deputy ministers who stayed in place. One of them, Art Daniels, was notably outward looking. He was aware of best practices in the private sector, and took the lead in introducing multi-skilled work teams and electronic data interchange. He was an enthusiastic proponent of recognition programs and had served as president of the Institute of Public Administration of Canada,

an organization of academics and practitioners that since 1990 has been giving an annual public management innovation award. Daniels submitted his department's innovations for the IPAC award. (Kernaghan, Marson, and Borins, 2000, 31-5). Achieving external recognition from IPAC and other awards was an effective way of motivating further innovation.

The MCCR example illustrates organizational learning from the outside. More generally, we could ask how organizations do learn from the outside. Some ways would include wide reading by individual members of the organization, attendance at conferences and workshops, bringing in outside experts or facilitators, site visits, benchmarking, and participation in professional networks (Osborne and Plastrik, 2000). A public sector organization might take a neutral stance toward such learning, leaving it to the individual to undertake. Or it could go further by encouraging learning — for example, by providing support for individuals to attend conferences and workshops, and by establishing mechanisms, such as internal seminars, to share what has been learned.

Innovation Is Everyone's Responsibility

The implication of the finding that innovations frequently come from middle managers and frontline staff is that they should be involved in the innovative process. The data on individual innovations present many examples of this, two of which are particularly compelling. The Massachusetts Department of Environmental Protection won a Ford-KSG innovation award for pioneering cross-media environmental inspection. Rather than sending several inspectors to a factory to look separately at air, water, and soil pollution, it began to send teams of cross-trained inspectors to look at a factory's impact on the entire environment. The idea was developed by Manik Roy, a member of the head office staff and a doctoral student at the Kennedy School of Government (Borins, 1998, 197).

The origin of Canada's SchoolNet program is a similar story. In the early '90s, some middle managers in Industry Canada were thinking about how the federal government could gain a presence on the rapidly evolving Internet. An undergraduate student

on a work term in the government proposed an interactive website to which primary and secondary school educators could send educational materials, and SchoolNet was launched. The initiative ultimately received enthusiastic political support at both the federal and provincial levels.

These two examples show how students brought leading-edge thinking to public sector organizations. Some corporations, recognizing that being abreast of information technology is essential to their survival and that the young are closest to and most comfortable with new technology, have put in place reverse mentoring programs, whereby younger staff members help senior executives learn to use information technology and increase their understanding of its potential. In recent years, many public sector organizations have found that, as a result of downsizing, their age profile is dominated by the middle-aged, with very few employees under the age of 30. This will make it difficult for them to benefit from younger thinking. Some more forward-looking governments, such as Canada and Ontario, have established internship programs to increase the supply of bright young staff.

Experimentation and Evaluation

The process of innovation often proceeds by trial and error. Organizations undertake experiments, put in place a process for evaluating the results, and, depending on those results, expand, modify, or scrap the innovation. Traditionally, the public sector has been unwilling to do this for fear of media and opposition criticism of failures. As a consequence, it has been highly risk-averse, attempting to avoid errors by avoiding innovation. Innovative organizations, however, do not avoid errors. Rather, they become very effective at quickly correcting and learning from them.

Despite this culture of timidity with its fear of public failure, there are possibilities for public sector experimentation and learning. As embodied in Justice Louis Brandeis's famous reference to the states as "laboratories of democracy," a decentralized system of government does permit a wide variety of approaches to a given problem, and learning happens because public servants compare the results of different approaches. Some systems of government may be more supportive of experimen-

tation than others. In parliamentary systems with disciplined majorities, it is easy for the government of the day to use its majority to introduce a comprehensive new program on a national scale. In a legislature lacking party discipline, a majority must be fashioned for each piece of legislation. Each proposal will face firm proponents, equally firm opponents, and some legislators who are undecided. Those who are undecided could be brought to support the legislation if it is introduced on an experimental basis as a pilot program. Legislative necessity may well create fertile ground for experimentation and evaluation.

The reinvention labs created under the U.S. federal government's reinventing government initiative are, of course, an example of experimentation. They were established by individual departments, usually with a relaxation of departmental and central agency controls, and with the support of the office of Vice President Gore. The objective was to replicate successful experiments (Osborne and Plastrik, 2000).

The tactics of rewarding innovation and experimentation-with-evaluation can be linked together. On the one hand, innovation awards should be given for experiments that have achieved results such as improved performance and reduced cost. On the other hand, innovation is encouraged when the costs of failure to the innovator have been reduced. Osborne and Plastrik (2000) discuss a number of ways to do this, such as celebrating honorable failures and protecting employees from punishment if their innovations do not succeed. Together, these approaches would reverse the public sector's traditional asymmetric incentives.

Conclusion and Recommendations

This report has combined two different perspectives on public management innovation, that of the individual innovator and that of the organization. It has explored the individual perspective by using the rich body of information provided by applications to the Ford-KSG awards. The CAPAM awards provided comparative data about the economically advanced and developing nations of the Commonwealth. Though the Commonwealth sample sizes are relatively small, they do suggest substantial similarities in the characteristics of public management innovations and the innovative process in both the Commonwealth and the U.S., and in advanced and developing countries.

The report has examined the characteristics of these innovations, where obstacles have arisen and support has been found. Based on what was learned from these samples, we offer the following advice to individual innovators:

1. **In planning innovations, expect to use the five key building blocks most frequently observed in our samples: the use of a systems approach; the use of information technology; process improvement; private or voluntary sector involvement to achieve public purposes; and community, citizen, or staff empowerment.** These building blocks, in turn, have several components — for example, process improvement innovations include applications of the Pareto (80-20) rule, user pay mechanisms, voluntary compliance, and alternative dispute resolution. Often innovations apply a number of building blocks together in response to a complex problem. These building blocks are flexible and scalable, and transcend policy areas and national public services or cultures.
2. **When attempting to implement your innovation, anticipate a wide variety of obstacles.** Obstacles will arise most frequently within the bureaucracy, but some may come from the political level and others from the world outside. Finding the necessary resources is the most frequent individual problem and the one least frequently resolved. The obstacles identified generate questions innovators should ask regarding, among others, program cost and the availability of resources, the program's legal mandate, the capacity of organizations expected to deliver the program, the attitudes of occupational groups that will be involved in the program, the implications of using a new technology, opposition by central agencies, difficulties reaching the target group, and public skepticism or opposition.
3. **There are many possible responses to these obstacles.** The two you are most likely to use are, broadly defined, persuasion — showing the benefits of an innovation — and accommodation of the concerns of skeptics. Each of these, in turn, has a number of aspects: accommodation includes consulting with or co-opting

affected parties, providing training, compensating losers, or making a program culturally sensitive. Based on the experience of our sample of innovators, expect to use strong-arm tactics (such as attempting to have opponents removed from their positions) least frequently. Successful innovators display an ability to take objections seriously and respond appropriately. Specific sets of tactics are most likely to correspond to each obstacle.

4. **There are a wide variety of potential supporters of innovation from one's own agency, other agencies, the political level, and the world outside, and successful innovators mobilize many of them.**
5. **When asked, successful innovators gave numerous pieces of advice to potential innovators.** The advice emphasized planning and improvisation, being decisive and being inclusive of all stakeholders, persistence, and promotion of the innovation.

The data from both the U.S. and Commonwealth innovation awards showed that frontline staff and middle managers are the most frequent initiators of public management innovation. This is a surprising result, given the traditional impediments to innovation emanating from that level in the public sector. It leads to the question of how public sector organizations can be made more supportive of such innovations. There does appear to be a consensus on the characteristics of innovative organizations, whether in the private or public sectors.

This last section of the study findings provides the following advice to managers who would like to enhance the level of innovation in their organization and who have the authority to do so.

1. **An innovative culture needs support from the top.** It can come in the form of establishing organizational priorities to guide innovation, recognition for innovators, protection of innovators from central agency constraints, and granting the latitude to experiment. In this approach, those at the top of organizations, rather than initiating innovations themselves, are encouraging innovations to bubble up through the organization.

2. **Rewards to innovative individuals may include financial compensation, for example, performance-related pay and gain-sharing.** When financial compensation is constrained, awards and recognition may serve as substitutes. Awards can include those given by the department or the entire government; innovation awards given by NGOs, such as the Ford-KSG and CAPAM awards; or impromptu recognition. An example of the latter is former Labor Secretary Robert Reich inviting public servants whose ideas were incorporated into legislation to meet the President at White House signing ceremonies.
3. **Individual innovators made clear that lack of resources for innovations was a serious constraint. One response to this is to establish a central innovation fund to support innovative ideas within the public sector.** Financial management reforms also create the possibility of enhanced internal funding for innovation within all agencies.
4. **Because innovation often depends on the ability to see things differently, diversity in terms of the backgrounds and ways of thinking of an organization's members will enhance its innovativeness.**
5. **Innovative organizations are effective at seeking out information from the outside, for example, by benchmarking, making site visits, and participating in professional networks.** They are also effective at sharing this information internally.
6. **Innovative organizations draw ideas from people at all levels.**
7. **Innovative organizations are effective at experimenting and evaluating their experiments.** They recognize that failures are possible, and have lowered the cost to their staff of honorable failures. They continue with their successes and discontinue their failures.

There are some bridges between the individual and organizational perspectives to innovation. Organizations with a culture of innovation generate numerous award applications, and glimpses of the culture can be seen as a setting for each application. Similarly, innovators who succeed despite an organiza-

tional culture that is either indifferent or hostile create the possibility of a cultural transformation.

Societies throughout the world are now convinced that innovation by the private sector is essential to strong economic performance. The harder challenge is to create a public sector that is more open to innovation than has been the case. This report has suggested ways to do this; it will have succeeded if it strengthens the resolve or informs the thinking of a few of the public sector's future innovators.

Appendix: Research Methodology

The Ford-KSG awards program actively solicits applications regarding innovations in all policy areas and receives about 1,500 per year. The initial application form asks about the characteristics of the program, in particular: how it is innovative; its beneficiaries and funding sources; verifiable evidence of the program's achievements; and its replicability. From the approximately 1,500 initial applications received each year, juries of academics and practitioners with expert knowledge of the relevant policy areas choose 75 semifinalists representing each policy area in the same proportion as in the 1,500 applications. The semifinalists then complete a more detailed questionnaire, including many questions about the process of conceptualizing and then implementing the innovation. Twenty-five finalists are chosen on the basis of expert evaluation of the detailed semifinalist questionnaire. Each finalist then hosts a site visit by an expert, who files a report. Using these reports and an interview as input, a national committee chooses 10 winners. The award was changed to include the federal government in 1995.

My initial study analyzed a large sample of 217 open-ended semifinalist questionnaires completed between 1990 and 1994 when the awards program was open only to state and local governments (Borins 1998). The open-ended questionnaires were coded and quantitative results were produced. A similar procedure was applied to a sample of 104 finalists from 1995 to 1998 that included 29 fed-

eral, 44 state, and 31 local applications. The distribution of responses in the second sample strongly correlated with the first (Borins 2000a). As a consequence, results are presented for these two samples — totaling 321 questionnaires — together.

The Commonwealth Association for Public Administration and Management international innovations award competition, held in 1998 and 2000, is open to public sector organizations throughout the Commonwealth. A questionnaire that is virtually identical to the Ford-KSG semifinalist questionnaire was sent to CAPAM applicants. The Commonwealth includes several economically advanced countries (Australia, Canada, New Zealand, Singapore, the UK) and many developing countries in the Caribbean, Africa, and Asia. This questionnaire yielded a total of 83 responses, 37 in 1998 and 46 in 2000. There were 56 responses from economically advanced countries, including Canada (20), Australia (15), Singapore (14), New Zealand (3), Malta (3), and the UK (1). There were 27 responses from developing countries, including India (8), Malaysia (6), South Africa (5), Jamaica (2), and individual responses from Bangladesh, Cyprus, Ghana, Iran, the Seychelles, and Zimbabwe. These questionnaires were coded in the same way as the Ford-KSG awards questionnaires.

A similar questionnaire was also sent to applicants to the Institute of Public Administration of Canada public management innovation awards, open to

public sector organizations at all three levels of government in Canada, between 1990 and 1994. The distribution of responses in the 33 questionnaires received was shown to be strongly correlated with that of the 1990-94 U.S. study (Borins, 2000c). Because the CAPAM questionnaire already includes 20 responses from Canada, I decided not to include the earlier Canadian questionnaire, to avoid over-weighting Canadian responses in the Commonwealth sample. This report uses the statistical results of the U.S. and CAPAM samples and quotes completed questionnaires — and, for the U.S. sample, expert evaluations — of the finalists. The questions discussed in this report are as follows:

1. [Asked in 1990-94 U.S. sample]. What makes your program or policy initiative innovative? Compare it with other programs currently operating in your region, state, or nationally that address the same problem. How does your approach differ? [Asked in 1995-98 U.S. sample and both Commonwealth samples]. Describe your innovation; include the specific problem it addresses, and how it has changed previous practice. (See Table 1.)
2. Please describe the most significant obstacle(s) encountered thus far by your program or policy initiative. How did you deal with each of the obstacles? Which implementation obstacles or difficulties remain? (See Tables 2, 3, and 4.)
3. What individuals or organizations are the strongest supporters of the program or policy initiative and why? (See Table 5.)
4. [Asked in 1998 and 2000 Commonwealth samples]. What are the most important things you have learned from initiating and/or implementing this innovation? Is there any advice you would give to a would-be innovator? (See Table 6.)
5. What individuals or groups are considered the primary initiators of the program or policy initiative? Please specify their position or organizational affiliation at the time they initiated the program or policy initiative. (See Table 7.)

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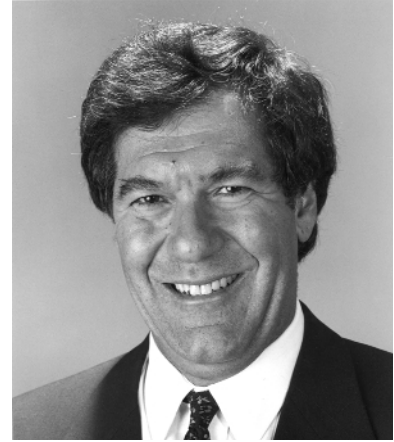
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Sandford Borins is Professor of Public Management in the Joseph L. Rotman School of Management at the University of Toronto and Chair of the Division of Management at the University of Toronto at Scarborough. He has been a visiting professor at the Kennedy School of Government at Harvard University and the Goldman School of Public Policy at the University of California at Berkeley.

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Professor Borins has had a wide range of professional experience. He was a member of the selection panels for the Commonwealth Association for Public Administration and Management and the Institute of Public Administration of Canada innovation awards, as well as chair of the selection panel for the Amethyst Award for Excellence in the Ontario Public Service. He was a member of the board of directors of the Ontario Transportation Capital Corporation, which developed Ontario's electronic toll highway. He is senior adviser and conference rapporteur for the Commonwealth Association for Public Administration and Management.

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