

IBM Center for The Business of Government

Accelerating Government Innovation With Leadership and Stimulus Funding



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TABLE OF CONTENTS

| | |
|--|----|
| Foreword | 4 |
| Executive Summary | 6 |
| Introduction | 9 |
| How Government Managers Can Unleash More Innovation | 14 |
| Teams with diverse perspectives produce more and better ideas. | 15 |
| Combining and borrowing from existing sources can be a powerful source of innovation. | 16 |
| Outsider thinking helps us step outside of our “boxes” and silos. | 17 |
| Innovation thrives on wonder, as well as some wander. | 18 |
| Without persistence, many efforts are destined to falter. | 19 |
| The status quo is hard to change in any organization, especially government. | 20 |
| Project management skills are valuable yet too often underdeveloped. | 21 |
| Action steps for managers | 21 |
| What Governors and Mayors Can Do to Foster Innovation | 22 |
| Leaders are responsible for setting vision, and now is a time to be bold. | 23 |
| A dedicated team accelerates innovation. | 24 |
| Innovation needs dedicated funding, and its own rules and flexibility. | 25 |
| Data provides the foundation for accountability and transparency in stimulus spending. | 26 |
| Innovation thrives when leaders provide permission to fail. | 28 |
| Great leaders are curious, and foster curiosity in others. | 29 |
| Confident leaders welcome ideas, and don’t reject them too quickly. | 30 |
| All employees have something to contribute to innovation. | 31 |
| The public may have valuable ideas and fresh perspectives to contribute. | 32 |
| Innovation culture and infrastructure takes time to institutionalize, but will pay dividends. | 33 |
| Action steps for leaders. | 34 |
| Conclusion | 35 |
| Sources | 36 |
| About the Author | 39 |
| Key Contact Information | 40 |
| Recent Reports from the IBM Center for The Business of Government | 41 |

FOREWORD

On behalf of the IBM Center for The Business of Government, we are pleased to present a new report, *Accelerating Government Innovation With Leadership and Stimulus Funding*, By Jane Wiseman with the Harvard Kennedy School's Ash Center for Democratic Governance and Innovation.

Our Center and many others have written numerous reports about government innovation, including how new innovation roles have focused on technology, data, and digital goals. Innovation and data teams have been in place in cities for a decade, and more recently in state and federal government.

With the evolving maturity of innovation offices and digital teams comes the imperative for leaders and managers to provide pathways for these organizations to succeed and work together effectively, in terms of embracing new ideas and scaling those that prove effective beyond a prototype or pilot. The availability of a large, one-time infusion of federal funds to support state and local services and programs through the American Rescue Plan Act, the Infrastructure law, and other recent laws provides State and local leaders with a unique opportunity to collaborate with their federal partners and promote innovation that improves the lives of their people. Data and innovation teams can help government be more efficient and effective in spending stimulus funds at the state and local level in the coming years.

In this new report, Jane Wiseman explores various ways that executives can leverage stimulus funding to incentivize success across multiple innovation and data roles, drive forward work from those roles into digital service development and delivery. Through close examination of multiple cases in the field, the author develops a framework with specific recommendations for how leaders can drive opportunities for innovators to complement each other to the benefit of public good, including key skills or characteristics that correlate to success.

This report is intended to help leaders of current government innovation groups, including chief data officers, chief digital officers, innovation team leaders, and similar groups, to learn from successful models that they can apply directly to their operations to be more effective. The report also provides lessons and recommendation for senior executives in government, such as a cabinet secretary, governor, county executive or mayor, to help them think through the possible models of effective practices to support the range of innovation roles, define success.



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Jane Wiseman's research builds on her prior work for the IBM Center, including *Data-Driven Government: The Role of Chief Data Officers* and *Silo Busting: The Challenges and Successes of Intergovernmental Data Sharing*. The report also continues the Center's longstanding work to help drive government innovation forward, including *Innovation and Emerging Technologies in Government: Keys to Success* by Alan Shark, *Encouraging and Sustaining Innovation in Government* by Beth Noveck and Stefaan Verhulst, and *The Persistence of Innovation in Government: A Guide for Innovative Public Servants* by Sandford Borins.

We hope this report inspires innovators, managers, and leaders in government with a better understanding for how to capitalize on present opportunities created by major funding support in creating a better future for the people who they serve.

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EXECUTIVE SUMMARY

The unprecedented level of federal investment coming to state and local government over the next few years can be a once-in-a-century opportunity to drive transformational change that breaks apart old methods of delivering service to the public and replaces them with new approaches that are modern, customer-centric, and efficient.

In fact, advancing “effective service delivery” is specifically called out as an allowable use of stimulus funding, along with “capacity building resources to support using data and evidence.”¹ Successfully leveraged, this federal investment can create new cultures of government innovation that can sustain for generations to come.

Yet stimulus funding could also be a missed opportunity if those entrusted to spend the funds do not have the time or permission to experiment and to redefine how government serves the people. Simply using the half trillion² in stimulus to pay for more status quo government will be a wasted chance for change. In short, this is the time to reboot government and create a new model that is more digital and data informed. The way to do so is to unleash pent-up capacity for innovation in the many dedicated public servants who have good ideas but have not yet been empowered to implement them.

Transformational change is hard—but not impossible. Government is capable of quickly innovating to respond to crisis, as we saw with the explosion of digital government during the pandemic. When city hall doors closed, years of hopes and plans for digital government came to life in a matter of weeks.

One great example of government innovation during the pandemic comes from New York City. Among the least celebrated or visible government functions is registering deaths, a vital task that continued, often at higher volume, throughout the pandemic. New York City, epicenter of the first wave of deaths, was rolling out a new vital records system when the pandemic hit. Rather than putting the technology transformation on hold, Dr. Gretchen Van Wye, assistant commissioner of the Bureau of Vital Statistics, empowered her team to leverage the opportunity for change. For example, they automated what had been a manual process of error-checking records multiple times before they were officially registered by building the error checks into the system—improving both speed and accuracy. The team member who led that effort confessed she had waited her entire career to make the change.

This and other examples prove that government is capable of great innovation when creativity is supported and allowed to flourish. Even the term “moonshot” to describe a lofty aspiration comes from government experience. As noted by President Kennedy in 1962, “We choose to

1. United States Department of the Treasury. American Rescue Plan (ARP), Coronavirus State and Local Fiscal Recovery Funds (SLFRF) Overview of the Final Rule, page 29. [Link](#).

2. For context, 2019 federal support to state and local government was \$750 billion, with \$419 billion of that for Medicaid. The remaining \$331 billion supported all other federally-supported state and local programs such as education, employment and training, community and economic development, social services, transportation and the like. The \$150 billion in federal support to state and local government provided by the Coronavirus Aid, Relief, and Economic Security (CARES) act in 2020, along with the \$350 billion American Rescue Plan (ARP) Act in 2021 provides half a trillion of support to state and local government—one and half times the total annual level of support for non-Medicaid programs in the year before the pandemic.

go to the Moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win, and the others, too.”³

How can we bring creativity, innovation, lofty aspirations, and a little risk-taking to the use of federal stimulus dollars at the state and local level? How can we optimize the chances that the coming federal stimulus will generate transformational change in government? Perhaps some of the best advice comes from a prior century’s moment of challenge when then-New York Governor Franklin Delano Roosevelt, laying out his campaign ideas for the New Deal said, “The country needs, and unless I mistake its temper, the country demands bold, persistent experimentation. It is common sense to take a method and try it. If it fails, admit it frankly and try another. But above all, try something.”⁴

At this moment, government managers and leaders have the unique opportunity to advance innovation for generations, with the stimulus funding as their instigator to craft a future government that is responsive and customer-centric, digital and data driven, and thrives on innovation. Specific actions that managers and leaders can take include:

Innovation acceleration action steps for managers. To stimulate and support innovation during this time of federal stimulus and beyond, government managers should do the following when leading their teams:

- **Create teams with diverse perspectives** so a wide range of ideas are considered and many voices are heard. The larger the volume of ideas, the greater the chances of good ideas coming forward.
- **Innovate by combining and borrowing** from other disciplines, with an eye toward adjacent fields as well as those that are completely unrelated, where fresh ideas can address entrenched challenges.
- **Foster outsider thinking** and encourage input from a wide swath of the public, particularly historically excluded populations. Fresh perspectives and naïve questions can generate productive ideas.
- **Allow for wonder, and wander** because in this state of relaxation, ideas can germinate in ways that can sometimes elude a focused brain.
- **Plan for persistence** because it often takes repeated trial and error to make an innovation successful. Iterative learning and patience are keys to success.
- **Continuously challenge the status quo** because relying on routine processes produces only routine results, and dynamic tension can hasten problem-solving.
- **Invest in project management skills** because otherwise even the best idea may stagnate or become stalled, as the skills required to develop an idea are not always the same ones that persistently push implementation forward to completion.

3. Kennedy, “Moon Speech.” [Link](#).

4. Roosevelt, “Oglethorpe University Address.” [Link](#).

Innovation acceleration action steps for leaders. Leaders must create the conditions for success by setting a vision, creating innovation culture and providing resources for their teams. Key actions for chief executives in government to foster innovation include:

- **Think big and create a bold vision** as this is the time for lasting change and new approaches to delivery of government services, and big ideas are shown to bring more lasting change than small ones.
- **Create a dedicated team tasked with embedding data and innovation skills** across government. This is of particular importance in any stimulus-funded projects, with capacity building for use of data and evidence an allowable use of stimulus funds.
- **Set aside some stimulus funding for innovation** and make sure to signal across the organization that innovation will be a priority and risk-taking will be rewarded. Then reinforce that commitment by assuring that the dedicated innovation funding has some flexibility which will unleash creativity.
- **Anchor stimulus funding in data**, building data capacity via staffing of data, evidence and innovation teams. Stimulus funds can support both staff and data infrastructure that will pay dividends far longer than the funding lasts if capacity for turning data into insight becomes part of the culture.
- **Create permission to fail** so experimentation will lead to learning and iterative improvements that foster long-term and large-scale innovation.
- **Foster curiosity** and a spirit of inquiry and allow exploration of many divergent ideas as staff pursue curiosity projects.
- **Welcome ideas, and don't reject them too quickly** because many important innovations were originally rejected, and it takes many ideas to generate good ones.
- **Empower all employees to innovate** because everyone has ideas about how to improve their work, most just are never asked for their input or given the tools to make systemwide change. Further, democratizing innovation builds buy-in for change, which speeds adoption.
- **Gather public input** so many voices are heard, particularly those of historically underrepresented groups. Co-creating with the public also improves accountability and transparency, which may lead to greater satisfaction with government operations.
- **Institutionalize innovation** so the near-term stimulus energy and fresh ideas are permanently embedded in organizational culture.

Now is the time to reinvigorate the public sector to enable maximum improvement in the years to come. This paper draws on dozens of interviews with leading state and local government innovators along with expert observations about innovation. It provides recommendations for government to maximize the opportunity of the federal stimulus spending to create lasting change and institutionalize innovation in the years ahead.

INTRODUCTION

Across state and local government, both day-to-day managers and executives face a time of both challenge and opportunity as stimulus funds present them with new resources and decisions on how to allocate the funds.

In some cases, the increases are sufficient to restore operations to prior levels, but for some functions the temporary federal infusion will double or triple available resources. Across all federally supported non-Medicaid programs, the amounts provided in 2020 and 2021 are 1.5 times the pre-pandemic level of support, assuring that state and local government will have a significant one-time infusion to make transformational change.

Managers and leaders have the unique opportunity at this moment to advance innovation for generations, with the stimulus funding as their instigator and quite literally the stimulus to a future government that is responsive and customer-centric, digital and data driven and thrives on innovation. This paper describes a path forward to accelerate innovation in state and local government during the federal stimulus and beyond.

State and local government workers are unsung heroes of the pandemic, many developing breakthrough innovations during the crisis, largely unseen by the public.

The pandemic forced state and local governments to innovate as they closed city halls and state houses to protect employees and the public. To continue delivering essential services, many functions went online, at an unprecedented rate. **Digital government** took a great leap forward during the pandemic as then-Pittsburgh Director of Innovation and Performance Santiago Garces noted, “What used to absolutely, positively have to have four signed paper copies in order to get done can now be done with a streamlined process and a digital signature instead, so we made years of progress in a couple of weeks when the pandemic forced city hall to go virtual.”⁵ And, as pointed out by then-Miami Chief Data Officer Mike Sarasti, “With the COVID crisis, we’ve found it’s amazing how much organizational will to make things happen you have when you have death knocking at the door.”⁶

Use of data in government also came into the spotlight during the pandemic, when daily counts of COVID cases, test positivity rates, hospitalizations and deaths became not just leading news, but also key factors in government decision-making. In Boston, a multiyear citywide data warehouse project meant Chief Data Officer Stefanie Costa Leabo was able to provide her mayor with a real-time integrated COVID-19 dashboard in a matter of days.⁷ Similarly, the state of Indiana was able to quickly respond to the pandemic with data because of prior investment in a secure research platform connecting researchers and state officials. This meant they could perform machine learning and predictive analytics efforts on virus patterns

5. Garces and Sarasti, “Digital Government Transformation at Full Speed.” [Link](#).

6. *Ibid.*

7. Descant, “Boston Mayor Walsh Names New CDO, First CISO,” [Link](#); AND Ropek, “Boston Turns to Data Analytics to Track COVID-19 for Residents.” [Link](#).

within hours rather than weeks. The platform allowed researchers to develop predictive models for how the disease was likely to spread and informed Governor Eric Holcomb's decisions about resource distribution such as when and where to deploy the National Guard to create field hospitals and how to best allocate statewide assets like available hospital beds, ventilators, and personal protective equipment.

And yet, unfortunately, the data infrastructure investments that made rapid response possible in some jurisdictions are not typically front and center for public officials, because, as one data leader said, "There's no ribbon cutting for a data warehouse." As a result, many state and local governments struggled to track and manage the data needed to make informed decisions during the crisis response phase of the pandemic.

COVID isn't the first crisis to inspire innovation. In 2003, the SARS virus caused the government of China to place restrictions on movement, and its then-nascent ecommerce industry took off. In 2008, after the global financial crisis, the sharing economy emerged as a new way to deploy underutilized assets like cars and houses for financial gain. What matters now for government is whether the early pandemic gains in innovation can be sustained and accelerated in the years to come.

State and local government worker morale has suffered during the pandemic.

Since the start of the pandemic, state and local government leaders, managers, and frontline workers have been in a sprint-marathon as wave upon wave of crisis has forced them to deliver public services amid constant change. They've juggled outsized work and personal responsibilities, working more and under greater stress while the public clapped/sang/banged pots for seemingly everyone but public sector employees. Meanwhile, customers coming into government offices grew more testy and short-tempered with each passing month.

Regardless of political persuasion, we all wait in the same line for a driver's license renewal. Yet, the political polarization over how to respond to the pandemic has created conflict in public spaces. Public servants in customer-facing roles have had to handle such conflicts in addition to doing their regular jobs, often with new restrictions in place, placing them on the frontlines of interpersonal conflict. As one public official confided, her frontline staff are feeling "pretty beat up" by their customers. This is consistent with a recent national survey of public sector employees that showed 44 percent are feeling stressed and 42 percent are feeling burned out or fatigued, and 46 percent report the pandemic has created tension in how the public interact with them.⁸

For public servants who were deemed "essential workers" and had to come in to the office when others were working remotely, this created additional stress at an already difficult time. Further, with an increased demand for digital skills across the economy, some state and local governments struggle to find and keep the right talent to make their organizations run smoothly. Others report losing staff to attrition or retirement and not being able to backfill the positions, which is consistent with national survey data showing a third of public sector employees are considering leaving their jobs in the near future.⁹

8. Mission Square Research Institute, "Continued Impact of COVID-19 on Public Sector Employee Job and Financial Outlook, Satisfaction, and Retention." [Link](#).

9. *Ibid.*

Strategically deployed, federal stimulus investments can help state and local government sustain and advance innovation.

In the face of the current state of exhaustion, state and local governments are being given responsibility for spending a half trillion in federal stimulus dollars—with time constraints and complex guidelines. These incoming billions are a once in a generation chance to make strategic long-term investments across government. And yet, coming on the heels of two years of overwork, the timing is tough. One public health official said she'd rather take a 10 percent budget cut than handle the tripling of her budget in such a short time—it's challenging to be strategic in the face of deadlines, constraints, and scrutiny. There will be scrutiny from the press regardless of how good the outcomes are, as many journalists are looking for the slipup that can turn into a hot headline rather than the story of careful and meticulous process and adherence to rules. But the reality is that overwork, exhaustion, and complex requirements¹⁰ just may get the better of some stimulus fund recipients.

Innovation in government is not new, but it remains far from commonplace.

What is innovation in government? There is no one definition. And as one city data officer said, “No one even knows what innovation means.” Another city innovator said, “So many people think innovation is technology. If you redesign a form to make it easier, that is innovation.” Most of what we see in the world is incremental innovation. Products marketed as “new and improved” are often almost exactly the same as the previous product, but for some small tweak. Some innovators like to distinguish between small, incremental, or process improvements and those that are truly breakthrough ideas or approaches. For purposes of this paper, both are included in the broad definition of innovation.

Innovation in government is not new and has gone by various names over the years—from the reforms begun in the late nineteenth century during the Progressive Era to the early twentieth century New Deal and the late twentieth century Reinventing Government and National Performance Review and the performance “stat” programs of the last few decades. Innovation has and always will exist in government; it just gets varying levels of attention and resources over time.

The most recent wave of attention on innovation in government was largely fueled by funding from Bloomberg Philanthropies, as the work of Mayor Bloomberg and his team to apply data and structured problem solving to city challenges spawned city Innovation Teams beginning in 2011. Subsequent rounds of funding have created over 40 Innovation Teams (or iTeams) around the globe. As the work of these leading innovators gained recognition, the movement gained momentum, and mayors created innovation teams of various types even without philanthropic funding, for example in Kansas City, Missouri.

Among the early cities to receive funding was Boston's Mayor's Office of New Urban Mechanics, where co-founder Nigel Jacob was at the helm for a decade. To say he wrote the book on civic innovation is in this case more than a figure of speech.¹¹ Over the years this group has experimented with ideas like using modified food trucks to bring a mobile city hall out into neighborhoods, creating an app to passively collect data about potholes, dynamic pricing for parking on busy streets, and exploring how to build street-level data collection of pedestrian and bicycle traffic without using privacy-challenging surveillance techniques.

10. Federal broadband support includes 100 pages of requirements.

11. Jacob, Guide for Embedding Breakthrough Innovation in Local Government. [Link](#).

The COVID crisis has put a spotlight on access to timely data, an innovation mindset, and delivery of digital services to the public. While the examples provided here demonstrate the outsized capabilities of the leading data and digital innovators in government, they remain in the minority. Of the 90,000 units of local government in the U.S., the number of data, digital, and innovation officers are each numbered in the dozens rather than the hundreds, thousands or tens of thousands. A 2020 report from Bloomberg Associates reflecting a survey of the leading cities across the globe concluded, “Data-driven decision-making is still a goal and not a common reality. Despite the importance given to data tools, which include advanced data analytics and artificial intelligence (AI), few cities have the right data infrastructure, standards, and approaches to data sharing in place to take full advantage of these tools.”¹²

There’s another challenge. As pointed out by Harvard’s David Eaves, even the leading innovators aren’t always successful in effecting truly transformational systemwide change. When commenting on the accomplishments of the first decade of the open data movement, Eaves pointed out, “We’ve seen a handful of sustainable, shiny apps and some increase in government transparency, with potential impacts on corruption and democratic engagement. While these developments have been important locally, it’s not clear that their impact has been transformative at a global scale.”¹³

And yet, despite the success of Boston and other early adopters, most state and local governments in the country remain under-optimized for innovation due to the status quo bias that predominates in public service culture.

Why is advancing government innovation so important right now?

Most government leaders are used to working in an environment with little clarity, so they should be well positioned to move forward with post-pandemic government operations—perhaps better than their private sector counterparts. A study by the consulting firm McKinsey shows that businesses by and large aren’t ready for post-pandemic operations, noting that, “90 percent of executives think the pandemic will fundamentally change the way they do business, but only 30 percent feel confident they are ready for what comes next.”¹⁴

With billions in federal stimulus already in state and local coffers, and many more to come, how should state and local government leaders and managers be preparing for the upcoming years of pandemic recovery? How should they think about deploying, investing in, or augmenting their existing innovation capacity for lasting impact? How can innovation, data, and digital teams best deliver public value?

With those questions in mind, this paper mines the experience of standout state and local government operations that bring significant public value by applying the tools of data and innovation to their work. This paper describes successes of the various public sector roles, referred to as “innovators” for short but comprising chief data and analytics officers, chief innovation officers, chief digital officers, and describes common successes and challenges, and proposes recommendations to advance their work and maximize public value. The goal of this paper is to provide fuel to public servants to help them on the path of continuous innovation using federal stimulus funding as a catalyst.

12. Bloomberg Associates, Digital City Tools. [Link](#).

13. Eaves, “The first decade of open data has been a win—but not for the reasons you think.” [Link](#).

14. Bar Am, Furstenthal, Jorge, and Roth. “Innovation in a crisis: Why it is more critical than ever.” [Link](#).

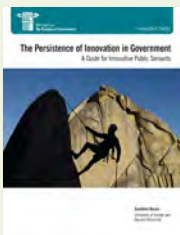
This report is consistent with several recent reports and posts published by the IBM Center and written by academic experts for government leaders as they consider how best to leverage innovation initiatives to serve residents more effectively and efficiently.



Innovation and Emerging Technologies in Government: Keys to Success by Alan Shark: This report describes federal, state, and local innovators in action and how they address these practical questions. Dr. Shark offers inspiring examples of how innovation leaders are adapting emerging intelligent automation technologies such as blockchain, artificial intelligence, and cloud computing. In addition, the report distills five key qualities that drive successful innovation.



Encouraging and Sustaining Innovation in Government by Beth Noveck and Stefaan Verhulst. This report presents observations and recommendations from a wide-ranging roundtable discussion on government innovation. The roundtable focused on: efficiency and effectiveness; the customer experience; citizen engagement; and innovation through leadership and talent, process, scale and governance. Talent emerged as a key challenge—the difficulty of bringing people into government, and in harnessing the creative talent of civil servants currently serving. The report also takes stock of past experiences in the use of technology and innovation in government. Despite significant obstacles, including obsolete infrastructure and a patchwork of policies, considerable progress has been made along three government-wide and agency specific dimensions. The final part offers a series of five broad recommendations and 10 specific and implementable actions to institutionalize a culture of innovation.



The Persistence of Innovation in Government: A Guide for Innovative Public Servants by Sanford Borins. This report analyzes the winners of and applicants to the Harvard University Kennedy School's Innovations in American Government Awards. Professor Borins found that innovation is alive and well and persisting at all levels of government in the United States. One of the most significant findings by Professor Borins is the increasing proportion of innovation initiatives involving collaboration. In 2010, 65 percent of the innovation applicants reported external collaboration as a project component—more than double the 28 percent reported in the 1990s. Nearly 60 percent of the applicants also reported collaboration within government. Significantly, award semi-finalists in 2010 reported an even higher incidence of collaboration, with over 80 percent of the semifinalists reporting external collaboration and collaboration within government. Professor Borins concludes his report by emphasizing the importance of partnerships among awards programs, academics, and practitioners as key to spurring future innovations. Moreover, the report calls for continued research on innovation in government.



The Evolution of Innovation in the Federal Government by John Kamensky. Innovation isn't something the public typically associates with government. However, there are more than a few scattered pockets of innovators across federal agencies who sometimes come up with startling changes to operating models, business processes, services, or management. Some of these initiatives are orchestrated from the top of an agency, but many happen organically on the front lines in response to a concrete problem. How have federal approaches to innovation evolved over the past 30 years? This blog post provides an overview of four of the more prominent initiatives over this period and covers agency-centric (small offices embedded across the government) examples as well.



How Government Managers Can Unleash More Innovation

Directing the daily work of government falls on the shoulders of the many department heads, key executives, and managers across state and local government. These managers oversee teams, make critical budget and resource decisions, and largely shape the interactions between government and its customers—the public. Success or failure of any new initiative is largely in the hands of the managers tasked with the daily “blocking and tackling” of program implementation.

Managers largely create the culture of government organizations as leaders of their teams. Teams are the foundation of innovation, and provide what Harvard Business School scholar Linda Hill calls the “collective genius” necessary for innovation. Anyone who has worked for a mayor or governor or president knows that the boss makes the headlines and gets the credit, but often it’s a team that gets the work done. Similarly, while Michelangelo is the name we know from the Sistine Chapel, he had an entire workshop supporting his creation.

As a society, we have mythologized the innovator as a lone individual toiling away by himself until reaching the breakthrough, perhaps imagining Archimedes in his bathtub, Darwin observing nature, or Einstein lost in thought. But the reality is that teams, not individuals, innovate. In his book *Where Good Ideas Come From: The Natural History of Innovation*, Steven Johnson catalogs over 200 innovations spanning hundreds of years and concludes that it is seldom the lone genius and much more often a team that creates breakthrough innovations. Further, he finds that over time this trend toward teams and away from solo inventors has increased.

There is value of conferring with others—it sharpens our thinking and gives us new ideas and fresh perspective. For example, MIT researcher Tom Allen studied engineers working in large corporate labs. Not surprisingly, he found that people are more likely to talk to those whose desks are near their own. Looking at the organization’s high performers, he found that they interacted the most with their peers. “High performers consulted with anywhere from four to nine organizational colleagues [on a given project], whereas low performers contacted one or two colleagues at most.”¹⁵

The following pages provide ideas to help managers stimulate and support the teamwork, collaboration, and creativity that drive innovation during this time of federal stimulus and beyond.

Teams with diverse perspectives produce more and better ideas.

A group that includes diverse perspectives generates more and better ideas than a homogeneous group. So, how can managers encourage more interaction and idea exchange in their organizations? One way is to create cross-functional teams so those with different perspectives join together to problem-solve. Diverse ways of thinking multiply the perspectives brought to the discussion and open up more ideas for consideration.

Creativity can come from a bit of productive tension, such as differing perspectives, styles, or cultures coming together. Just like a dinner party, more interesting and surprising conversations are generated when mixing things up a bit. A study of Broadway musicals found that the most successful shows were those that had a mixture of people who already knew each other and those who were new. When everyone knew each other well, there was too little creative tension as people relied on comfortable ways of interacting. When no one knew each other, there was too little common language and trust and the lack of chemistry stifled creative expression.

One example of the value of cross-functional teams with a variety of skills is in San Diego, where the Performance and Analytics Department is responsible for open data and data analytics, innovation, performance management, the 311 resident reporting app, the city’s customer satisfaction survey, and its digital apps for service delivery. This cross-functional team was key to

15. Allen, *Managing the Flow of Technology* as noted by Lehrer, p. 153.

San Diego's pandemic response. Chief Data Officer Andrell Bower noted that her team was viewed as "a bit of a strike team" because they are nimble with skills across data, technology, customer service and creative problem-solving. And as she noted, "When there's a crisis happening, what's needed is someone with a citywide purview to come in and help, across an array of tasks. We helped departments develop plans when the stay at home orders came into place."

One method is to foster informal interactions across groups is via office design. Pre-pandemic office designs in innovative companies deliberately sought to maximize informal interactions among various people and teams. By placing water coolers, coffee and break rooms, bathrooms, mailrooms and the like at the center of a building, people from all parts of the organization are forced to mix, mingle, and potentially share ideas. Sharing with others is why companies like Apple and Pixar design their offices to maximize informal mixing. For example, there is a large atrium at the heart of the Pixar building.

Combining and borrowing from existing sources can be a powerful source of innovation.

Chocolate covered bacon deliciously demonstrates the power of combining things that already exist. When you take the most popular of sweets (chocolate) and combine it with the most intense of savory (bacon), the result is something entirely new and surprisingly tasty. Many innovations are the result of this kind of creative mixing of existing elements.

As Harvard's Rosabeth Moss Kanter pointed out, "Game-changing innovations often cut across established channels or combine elements of existing capacity in new ways. CBS was once the world's largest broadcaster and owned the world's largest record company, yet it failed to invent music video, losing this opportunity to MTV. In the late 1990s, Gillette had a toothbrush unit (Oral B), an appliance unit (Braun), and a battery unit (Duracell), but lagged in introducing a battery-powered toothbrush."¹⁶

When I put my bike and tennis racquet in my car, I am trying to take advantage of fresh air. I'm also taking advantage of innovations of those who found fresh perspective outside their domains. The car I drive was built on an assembly line, which Henry Ford "invented" by borrowing from what already existed in the meat-packing industry. The bike helmet was created by a designer



16. Kanter, "Innovation: The Classic Traps," [Link](#).

looking at the hull of a boat, which can withstand crashes, and wondered if it could be designed into the shape of a hat to protect the head. My tennis racquet is a high-tech mix of fibers that originated with an engineer named Head who got frustrated by the breakage and splinters of his wooden skis and experimented until he developed the first man-made fiber skis. Successful, he was able to retire—but then he was frustrated by breakage of wooden tennis racquets and invented the composite forerunner of what we use today.

West Side Story, now in its umpteenth remake, doesn't today seem like an innovation, but in its day it was a radical departure from the expected. At that time, musical theater followed a formula of sequential acts, for dialog, dance, and song. In 1949, choreographer Jerome Robbins reached out to composer Leonard Bernstein and writer Arthur Laurents and pitched his idea—to create a modern version of Romeo and Juliet set in contemporary New York City and integrating the most compelling elements of classical ballet and opera, with a little jazz and experimental theater thrown in. It was an innovation that combined traditional forms in new ways. Traditional musical theater at that time didn't mix music, dance, speech, and song in this fluid way—in ballet the story is told via dance and in opera the story is sung. For the first time ever, West Side Story tells the story using both dance and song.

We now know that it was a success, but on opening night, no one did. As pointed out by Charles Duhigg in his essay on innovation in the book *Smarter, Faster, Better*, “When the curtains went down on opening night, there was silence. The audience had just seen a musical about rumbles and murder, songs describing bigotry and prejudice and dances in which hoodlums moved like ballerinas and actors sang slang words with the power of opera stars.”¹⁷ The audience that night loved it, as have audiences ever since. What West Side Story shows is the power of combining disparate things in new ways.

An excellent recent example of combining existing things in interesting ways was in San Jose, which developed its Resilience Corps with stimulus funding.¹⁸ Activities such as publicizing and administering vaccines, stocking food pantries, and distributing food aid were paired with job training and transferrable skill building (like learning to use a forklift). The benefit? Those who helped out on short-term projects with the city not only got paid and got trained, they were helped to find jobs after their temporary pandemic response service that used the skills they developed on those assignments.

Another great example of borrowing from another domain occurred at the onset of the pandemic. The Rhode Island unemployment insurance system was overwhelmed by claimants filing for benefits and wondering where their checks were. When the website went down, calls flooded the already overwhelmed call center, creating more frustration and delay. With the team struggling to find a way to provide the public with access to their claim status, it wasn't a technology expert or agency leadership, but the 25-year-old communications director, Angelika Pellegrino, who had an idea. “You know what, that's just like the Domino's pizza tracker.” So they built something inspired by pizza delivery for claimants to see not how soon their pepperoni pie would get to their house, but where in the process their benefits claim was, what next steps were required, and when they could expect to see their check.¹⁹

Outsider thinking helps us step outside of our “boxes” and silos.

Outsider perspective can accelerate innovation. Outsiders have an objectivity and fresh perspective that experts lack. By virtue of their lack of experience, they have the freedom to ask

17. Duhigg, *Smarter, Faster, Better*, p. 220.

18. The Office of the Mayor, “Resilience Corps.” [Link](#).

19. Freed, “Why government technologists love the Domino's pizza tracker.” [Link](#).

questions that would seem dumb coming from an insider. So they are powerful informants on innovation projects. Harvard Business School professor Linda Hill recounts the advice given to Steve Jobs when he went to see Edward Land at Polaroid to learn about innovation. Land told Jobs that when his scientists and technologists get stuck, he'll invite art and humanities students to spend time in the lab. They have a curiosity and fresh perspective, and will ask questions that an expert would never dare ask. Hill suggests that it could be such outsider perspective on photography that inspired the instant camera—no insider would have asked why they'd have to wait for the film to process in a darkroom, as an expert would understand the limitations of and be less likely to challenge the existing process.

Perhaps the most concrete example of outsider thinking is described by Jonah Lehrer in his book *Imagine* about the invention of the Barbie doll. In the 1950s, Ruth Handler, wife of an executive at the Mattel toy company, watched her daughter play with paper dolls. The dolls were children, but as Ruth Handler watched her daughter play, she noticed that the play involved the dolls being teachers and nurses and moms—all adults. Based on this observation, Ruth told her husband that children needed adult dolls but he dismissed the idea. Later, during the family's summer vacation in Switzerland, Ruth saw a doll called Bild Lilli, an adult doll with blond hair and long legs, reinforcing her conviction that an adult doll was possible. After Mattel executives watched young girls play with a prototype adult doll, they were convinced, and in 1959, Barbie came to market.²⁰

But for this outsider perspective, the doll never would have been created. The doll Ruth Handler saw on vacation in Switzerland was designed for middle-aged men, available only in bars and tobacco stores. "Handler saw the potential of the Bild Lilli doll only because she was an outsider. If she'd spoken German or been a local—if she'd grasped the bawdy backstory—then she never would have considered the doll for her daughter,"²¹ Lehrer wrote.

We learn more from people who bring fresh perspective and challenge our thought process than from those who agree with us. Strong leaders encourage and engage outsiders, even when they are critics. Outsider thinking helps make ideas and organizations stronger.

Innovation thrives on wonder, as well as some wander.

The process of developing an insight can sometimes be a mystery. Most insights come without an obvious or well-understood source. The symbol of a light bulb that goes from dark to light in an instant shows how quickly inspiration can come. But many of those who have had transformational insights truly can't recall the origins of their ideas, which sometimes come to them in dreams, daydreams, or seemingly out of thin air. Harry West, who came up with the idea for the Swiffer said, "I can't begin to explain why the idea arrived then. I was too grateful to ask too many questions."²² Milton Glaser who devised the **I♥NY** logo similarly said, "I could tell you a bullshit story about what exactly led to the idea of **I♥NY**, but the truth is that I don't know."²³

Many of us have experienced the spontaneous insight or solution to a vexing problem while engaged in a completely unrelated activity, such as cooking, running, or taking a bath. There is brain science that supports this phenomenon, as the various parts of the brain are better able to connect when we're not in focus mode but rather are in a state of relaxation. Daydreaming, going for a walk, or taking a break just might provide the right conditions for a creative break-

20. Lehrer, *Imagine: How Creativity Works*.

21. *Ibid*, p.132.

22. *Ibid*, p.xvi.

23. *Ibid*, p. 72.

through. As Steven Johnson points out in his book *Where Good Ideas Come From: The Natural History of Innovation*, Watson and Crick, famous for their foundational work on the structure of DNA, “were notorious for taking long, rambling coffee breaks, where they tossed around ideas in a more playful setting outside the lab—a practice that was generally scorned by their more fastidious colleagues.”²⁴

Without persistence, many efforts are destined to falter.

Contrary to the mythology of the instant moment of insight, innovation usually takes time. For example, it took 20 years to create the first animation movie at Pixar. And it took two-to-three years at Google, working at “breakneck speed,” to create the data storage necessary to power YouTube.

Many major breakthroughs face obstacles or setbacks along the way. One of the landmark local government innovations of the past decade, a project called AIR Louisville, faced many setbacks. This program helped participants with asthma reduce their need for rescue inhaler use by 82 percent and doubled their symptom-free days. Geotagged asthma inhalers captured data on where and when the air quality triggered the need for medicine. This data provided focus for the city to devise ways to ameliorate those hotspots of poor air quality.

This groundbreaking success only came about due to persistence after facing multiple dead ends. The original plan was to leverage existing air quality initiatives in the city. Unfortunately, it turned out that each measured different air quality issues—and none of them measured the health events that individuals suffered because of poor air quality. Ted Smith, the city’s first Innovation Team director and the leader of the project had an idea that air quality was not a binary outcome of good or bad, but rather that there were pockets of air quality at various levels across the city.

After several false starts an undaunted Smith continued to iterate. He recruited residents to ask them how frequently they were using their asthma inhaler via passive data collection—a sensor attached to the inhaler recorded date and time and GPS coordinates each time the asthma inhalers were activated. With philanthropic funding to scale from a small pilot to citywide, Smith was able to recruit enough of the population (1,400 participants) to get granular level data across the city. With this data the team mapped hotspots of poor air quality and could take action to change the microclimates. For example, one of the hotspots was near the airport, and that area now has 10,000 trees and bushes to help clean the air. Success came after repeatedly trying until the right solution was found, and not giving up at the various roadblocks. Reflecting on this, Grace Simrall, the city’s chief of Civic Innovation and Technology, noted, “If we pretend we don’t fail, we’ll only make things worse.”

In his book *Imagine*, Jonah Lehrer describes the invention of masking tape—by a sandpaper salesman named Dick Drew who had time to kill and was watching auto repair mechanics paint cars that had multiple colors on them, such as racing stripes or artistic designs. Their method was to attach paper to the car while painting one color, then take the paper off before painting the next color. The problem was that they pulled off some paint when taking the paper off, forcing them to re-paint the first area again.²⁵

Dick Drew was a sandpaper salesman at Minnesota Mining and Manufacturing (now 3M) whose curiosity was captured by this problem, so he decided to create an adhesive that was less sticky so it wouldn’t tear off the paint. He spent months experimenting and developed a sticky paper sheet with just the right amount of adhesive to stick without pulling off the paint. But he couldn’t figure out a way to make the pieces of adhesive paper not stick to each other. His boss

24. Johnson, *Where Good Ideas Come From: The Natural History of Innovation*, p.169.

25. Lehrer, *Imagine: How Creativity Works*.

wanted him to quit experimenting and get back to selling sandpaper. But in his spare time he kept at it. One day the eureka moment came, and even he has no idea what inspired the simple notion of having the sticky paper roll up onto itself like a spool of thread. He called it masking tape. Dick Drew later became a full-time researcher at 3M and then invented scotch tape when he saw cellophane, a new product made by DuPont (a company that never thought of making their product into tape!).²⁶

Lehrer also highlights the persistence of Milton Glaser, creator of the iconic **I♥NY** logo. In 1975, New York City was on the brink of bankruptcy, crime was high and the streets were dirty. The city sought an advertising agency for a campaign to improve the city's image. Interested firms had to create a design for the phrase, "I love New York." Glaser worked on it doggedly for weeks and submitted his final design. But once the design was submitted, Glaser didn't stop thinking about it. A week went by, and as Lehrer noted, "Because he refused to stop thinking about the three-word slogan—he kept on redrawing the logo in his mind—his ideas continued to improve. And then, while stuck in this taxi, this steadfast focus led to a new design, a better design. The graphic that he imagined in rush-hour traffic has become the most widely imitated work of graphic art in the world."²⁷

The status quo is hard to change in any organization, especially government.

In his book *Think Again*, Adam Grant describes how hard it is for us to change our minds and rethink our assumptions and approaches. He opens the book with the gripping story of a firefighter who was nearly killed by a raging wildfire, but saved his life by doing the opposite of usual practice—he lit a fire that burned up the grass around him. He then laid down in the grass and the big fire went around him. His split-second rethinking of all of his assumptions saved his life. At the point when he made his decision to stay in place and create a way to make the fire pass him by, he was going against instinct and what everyone else was doing—running away from the fire as quickly as possible. Grant goes on to point out that most firefighters don't drop their heavy gear when running away from a fire, even though carrying an axe and a chainsaw makes their survival far less likely. They don't rethink this assumption because they so identify with their tools that they won't drop them even when it makes sense, and notes the tragic truth that one such fleeing firefighter died holding onto his chainsaw.

Firefighters who brave raging wildfires are among the most fit, courageous, and well-trained professionals in the world. If even they face challenges in rethinking their patterns and habits, the rest of us certainly will too. We hold onto our patterns and beliefs even when they no longer serve us.

Charles Duhigg in his essay on innovation in the book *Smarter, Faster, Better*, reviews the case of the movie *Frozen*. While making the movie, the team got stuck in a creative rut when they got too comfortable with the storyline and relationship between the two main characters, sisters Elsa and Anna. They couldn't see their problem objectively because they'd become attached to what they had created, and couldn't figure out how to end the story. So, the leadership made an organizational change, elevating the film's writer to second director, changing team dynamics just enough to nudge some extra creativity out of them. The movie went on to be enormously successful. Reflecting on this example, Duhigg pointed out, "When strong ideas take root, they can sometimes crowd out competitors so thoroughly that alternatives can't prosper. So sometimes the best way to spark creativity is by disturbing things just enough to let some light through."²⁸

26. *Ibid*, p.40.

27. *Ibid*, p.71.

28. Duhigg, *Smarter, Faster, Better: the Transformative Power of Real Productivity*, p. 231.

A similar pattern is found in nature, where biodiversity is greater where a tree has fallen, because sunlight can enter the opening caused by the felled tree and allow other things to grow.

Project management skills are valuable yet too often underdeveloped.

Great ideas don't implement themselves. Innovative ideas require consistent attention, the way a garden needs water and weeding. Having a great idea and making it work are both challenges, but they require different skills. Too often that isn't recognized, so the people with the skills to come up with creative ideas are asked to implement them and struggle. Instead, what are needed are skilled project managers who can see ideas through to completion. This has long been true in the corporate world as well. As Harvard Business School Professor Rosabeth Moss Kanter noted, "Too often, however, grand declarations about innovation are followed by mediocre execution that produces anemic results, and innovation groups are quietly disbanded in cost-cutting drives."²⁹

New Orleans' Melissa Schigoda, director of the Office of Performance and Accountability, said it well: "The most important skill for successful innovation is project management. It takes good planning and good facilitation to keep a project on track, and to keep meetings productive. For one thing, a strong project manager is able to recognize and address when there are ego issues that need to be addressed."



Action steps for managers

To stimulate and support innovation during this time of federal stimulus and beyond, government managers should do the following when leading their teams:

- **Create teams with diverse perspectives** so a wide range of ideas are considered and many voices are heard. The larger the volume of ideas, the greater the chances of good ideas coming forward.
- **Innovate by combining and borrowing** from other disciplines, with an eye toward adjacent fields as well as those completely unrelated, where fresh ideas can address entrenched challenges.
- **Foster outsider thinking** and encourage input from a wide swath of the public, and in particular historically excluded populations. Fresh perspectives and naïve questions can generate productive ideas.
- **Allow for wonder, and wander** because in this state of relaxation, ideas can germinate in ways that can sometimes elude a focused brain.
- **Plan for persistence** because often it takes repeated trial and error to make an innovation successful. Iterative learning and patience are keys to success.
- **Continuously challenge the status quo** because relying on routine processes produces only routine results, and dynamic tension can hasten problem-solving.
- **Invest in project management skills** because otherwise even the best idea may stagnate or become stalled, as the skills required to develop an idea are not always the same ones that persistently push implementation forward to completion.

29. Kanter, "Innovation: The Classic Traps." [Link](#).

What Governors and Mayors Can Do to Foster Innovation



(pr team)
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by social media
follow (pr team)

Marketing
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② Support +3T
+3T

Changing the status quo is hard, so support from a chief executive is critical. Change threatens comfortable habits and routines and can cause fear of losing power or status. State and local government innovators need the support of their chief executives. As Grace Simrall, Louisville's chief of civic innovation and technology, said, "I have seen colleagues struggle because they don't get buy-in or support from the chief executive. My mayor empowers me and then stays out of the way. And he gives cover when I need it."

A good leader sets forth a vision and motivates others to achieve it. Whether governor, county executive, or mayor, state and local government chief executives have a once-in-a-generation opportunity to use stimulus funding to foster innovation and experimentation and to develop breakthroughs that will chart the course of government excellence for decades. In so doing, they can also set a culture of innovation that will endure long after stimulus funds are expended. Ideas described here are for leaders in government who want to use their stimulus funding as a catalyst for permanent improvement in their government.

Leaders are responsible for setting vision, and now is a time to be bold.

The magnitude, variety, and in some areas, flexibility of the federal funding offer a potential springboard for transformational change, and cries out for a long-term strategy and bold ideas.

Create a vision and long-term strategy. Federal stimulus dollars need to be spent in the next few years, but the impact can last for generations, so the first task is to think of the game-changing investments that will make the biggest difference. It's important to create a long-term strategy that every funded project can advance, and to engage key stakeholders in developing the strategy. The power of planning was made clear when King County, Washington, was able to quickly identify priority projects for its stimulus funding, because they already had in place an Equity and Social Justice Strategic Plan.³⁰

Think big. Government culture does not typically encourage risk-taking. Yet, to fail to take any risks now with once-in-a-generation funding is to waste an opportunity to be bold. University of Chicago scholar John Roman points out that bold reforms and big ideas are more likely to have lasting impact than the small reforms we hope will have an impact via replication.³¹

One of the big ideas put in place in the post-9/11 era in Massachusetts, when the state's homeland security funding was increased 20-fold (from \$6 million to \$123 million), was regional collaboration. This idea came from then-Secretary of Public Safety Ed Flynn's experience leading the Arlington, Virginia, police response to the 9/11 attack on the Pentagon.³² Collaboration across jurisdictional lines was essential to effective response on that fateful day. His leadership of that response made him a national figure, and led then-Massachusetts Governor Mitt Romney to tap him as his Secretary of Public Safety.

Massachusetts has 351 cities and towns, some older than the country itself, so local independence is hard-wired and collaboration was not the norm. Using the 20-fold increase in federal homeland security funding as leverage, Secretary Flynn forced cities and towns to work across jurisdictional boundaries in regional collaboratives if they wanted funding (and they all did). Regional funding collaboratives drove joint purchases and shared planning. Many experts credit the seamless collaboration of first responders at the finish line of the 2013 Boston Marathon

30. Office of King County Executive Dow Constantine, *Equity and Social Justice Strategic Plan 2016-2020*. [Link](#).

31. Roman, "Go Big or Go Home: Why Bold Reforms Work, and why Little Reforms Don't Grow up to be Big Reforms." [Link](#).

32. For further reading, see Ed Flynn's Wikipedia page. [Link](#).

bombing and coordinated regional investigation to the fact that they had been training together for years via their regional groups.

A dedicated team accelerates innovation.

Innovation and data teams of many varieties have been in place in state and local government for many years, and more recently in federal government as well, yet they remain the exception rather than the rule. The infusion of federal stimulus funding at the state and local level, and its flexibility to support staffing, makes this an opportune time for a leader to create or augment a data team or innovation team.

There are myriad ways these roles are staffed and organized in government, but one thing is common—most start out as a sole hire, with teams that grow organically over time. In some instances there is informal competition for resources or attention between data and innovation teams, while in other cases they collaborate well.

Looking across the innovator landscape in state and local government, there are two basic models of how the organizations are structured. Some state and local governments have consolidated the innovator functions into a single office or under a single leader across multiple teams. More commonly, they are spread across multiple offices, most often including a technology office. When the functions are in separate offices it does take more effort to be aligned on mission and priorities. The table below describes the two staffing models and their characteristics, and provides a handful of examples where the model is working well.

Table 1. Data Innovators in Government: Two Organizational Models

| Model | Characteristics | Examples |
|--------------|---|--|
| Consolidated | All innovator functions combined in one organization or reporting structure | Kansas City, Salt Lake City, San Diego, South Bend, etc. |
| Distributed | Innovator functions are spread across government. Typically there is a concentration of functions in one agency, department, or reporting structure with other satellite entities performing innovator functions separately. Most often at least one of the functions is in a technology department, such as the office of the Chief Information Officer (CIO). | San Francisco, Louisville, Boston, Denver, New Orleans, Commonwealth of Massachusetts, State of California, etc. |

Salt Lake City (SLC) uses the consolidated model. This city is unusual in having a mayor who is not only interested in data, but is also married to a data scientist. As Chief Data and Geographic Officer Nick Kryger said about Mayor Mendenhall, “She is definitely into data.” To staff the city’s data and innovation work, she has created a team of equals, four directors who all report to the chief information officer. The roles include Kryger the CDO/GIO, along with the chief technology officer (CTO), chief information security officer (CISO), chief innovations officer (CIO). This team of innovators lives by the motto, “Make the quality of life for people in SLC better through data.”

Another example of the consolidated model is Seattle, where innovation and data teams are together in the Department of Innovation and Performance, with a nascent digital team embedded. This team is not part of the city's IT organization, unlike many others.

An example of the distributed model is in Boston, one of the first to create an innovation team. It also has an excellent data analytics team and they each report in a different structure, with the innovation team reporting directly to the mayor and the data team reporting, along with the performance, digital and 311 teams, to the chief information officer. Another example of the distributed model is the City and County of San Francisco, known for innovation and data excellence. There, the mayor's office of civic innovation runs several innovation programs including Civic Bridge which provides pro bono opportunities for private sector volunteers, and STIR, which facilitates startup technology engagements with the city. The comptroller's office runs the performance management program and much-replicated data academy, the chief data officer is responsible for open data and data analytics and digital services are the purview of the city's chief digital services officer.

Does it matter if all the innovation functions are in the same reporting structure or if the innovators are distributed across government? Ideally, every government manager and leader will think like an innovator, but that remains a far-off goal. For the time being, with small and dedicated teams of innovators, the decision to centralize them in one reporting structure or to place them separately will depend on the unique assets and challenges of the jurisdiction.

The environment is more important than where an innovator is. What matters most is that they have a clear mission, and that their scope is clear to others so there is no "mission creep" and that they have the resources and authority to adequately carry out their mission. As one innovator pointed out, the political capital of the person in the role sometimes matters more than where the role is in government—someone with the right relationships can often get things done because they know how things work and know the right people to get to yes.

Finally, there must be clear delineation of roles among the new functions, be they infrastructure, resilience, equity, data privacy, or other policy positions, and across data, digital, innovation, data security, and other capabilities. Similarly, it should be clear how the new roles fit with existing performance and data offices, or with the longstanding government functions of finance, procurement, and technology.

Innovation needs dedicated funding, and its own rules and flexibility.

Funding is a good way to institutionalize innovation. Ideally, innovation should be funded permanently, rather than as a one-time endeavor. Creating a separate innovation fund or a dedicated line item for an innovation office is a good way to protect innovative ideas from being stifled by the long process for getting approval to even begin the experimentation stage. One great example is Denver, which has a \$10 million annual Innovation Fund (iFund) that funds much of this type of work.

This practice has been in place at the highly innovative 3M company. When that company brought in an outside consultant to help them become more innovative, their new approach vested control of the R&D budget with one senior technology executive who could award funding to the most ambitious ideas, effectively creating a competition among engineers and researchers to bring forth the most impactful ideas for consideration.³³ This forced each department to become more creative and think big, or else they wouldn't get any funding at all.

33. Email correspondence with Doug Bate, coauthor, *The Power of Strategy Innovation: A New Way of Linking Creativity and Strategic Planning to Discover Great Business Opportunities*.



Leveraging stimulus funding for this type of innovation competition could force government managers to move beyond incremental innovation ideas and reach for truly breakthrough innovations that will reverberate for generations to come, make government more responsive to customer needs, and develop approaches that save time and or money for either government, the public, or both. Competition could also inspire some cross-boundary collaboration in order to come up with the boldest ideas—chocolate and peanut butter didn't on their own come up with the idea of combining to make a more delicious snack. When different government department come together, their unique perspectives and ways of approaching a problem can generate more valuable ideas than they could have alone.

Regardless of whether a permanent innovation fund is created, all government leaders should set aside some amount of stimulus funding specifically for innovation projects. There is ample precedent in government for set-asides and carveouts for innovation, research, and evaluation. One example of a carve-out from time-limited funding that has had lasting impact was when the Department of Justice set aside 1 percent of all Crime Act funding for research and evaluation of funded activities across policing, corrections, and other justice system functions. Research and evaluation investments made then by the National Institute of Justice, under Director Jeremy Travis and with full support of then Attorney General Janet Reno, advanced the state of knowledge significantly and the impact of those insights continues to drive the field to this day. This type of activity is an allowable expenditure of stimulus funds, which specifically address “capacity building resources to support using data and evidence, including hiring staff, consultants, or technical assistance support.”³⁴

Data provides the foundation for accountability and transparency in stimulus spending.

Chief executives should let data and evidence guide decisions on stimulus spending. In some cases this means growing the data team and in other cases it means creating one—either way the key is to get more data people and innovators involved in stimulus decisions as well as in managing and tracking progress.

A good example is in Syracuse, New York, where Mayor Ben Walsh tasked his data and innovation team with developing a data-driven method for managing stimulus funded projects and

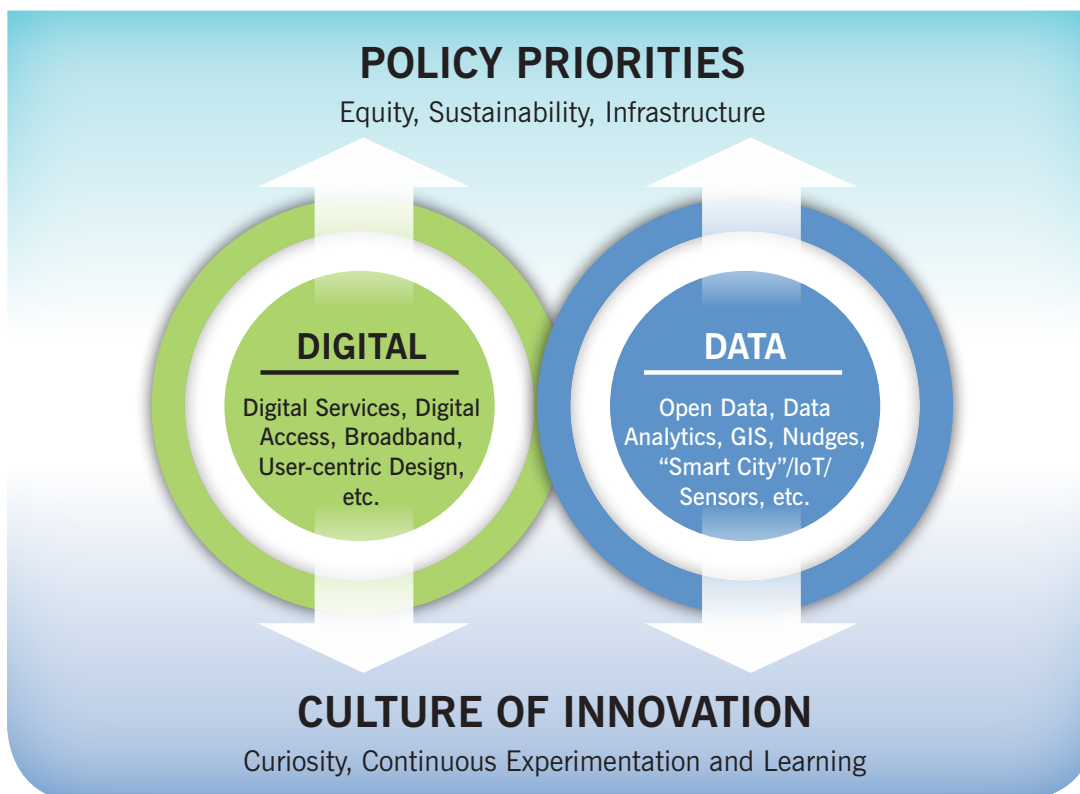
34. United States Department of the Treasury. American Rescue Plan (ARP), Coronavirus State and Local Fiscal Recovery Funds (SLFRF) Overview of the Final Rule, page 29. [Link](#).

then creating a public facing dashboard showing spending priorities, funded projects, and progress toward output indicators.³⁵ “During the planning phase, we kept hearing from our colleagues in other cities that they didn’t have the internal capacity, organizational culture, or workflows to manage all this funding adequately. This administration decided to leverage the challenge of this once-in-a-generation investment to instill in departments new standards for internal project management that start with incorporating data, evidence, and the practice of managing performance,” said Nicolas Diaz, chief innovation and data officer at Syracuse.

Without a focus on data and evidence, there’s a risk that seemingly commonsense approaches that don’t actually produce results will be funded. For example, adding new lanes to a highway seems like an idea that will reduce congestion, yet rigorous research shows that there is no net decrease in commuting time when highway lanes are added; the more complex solution of congestion pricing is shown to work, yet is far less common. Similarly, gun buyback programs seem like a way to reduce crime, yet the data show that these efforts largely collect guns that were unlikely to ever be involved in a crime, such as antiques, broken guns, and unused guns in storage, making it an ineffective crime-reducing strategy.

Whether the innovation, data, and digital teams involved in stimulus management are joint or overlapping, the mission must be clear, or there could be infighting as one organization tries to encroach on the other’s turf. Clearly defined roles can be enormously helpful not just to the innovators themselves, but also to professionals all around city and state government in knowing who to turn to for which kind of challenge, which saves time and energy. As shown in the graphic below, data and digital roles may sometimes overlap, so communication is key to reducing duplication of effort. Data and digital capabilities, supported by a foundational culture of innovation, can support any number of policy priorities.

Figure 1. Culture provides the foundation for innovators to advance priority policy goals



35. The City of Syracuse, “Our Impact.” [Link](#).

Innovation thrives when leaders provide permission to fail.

With so much stimulus funding available to state and local government, this is a time to take some risks, and in so doing we should expect some failure. When that happens, don't indulge in a blame game, instead mine the results for insight and learning, then move on to the next challenge with greater wisdom. Among the earliest civic innovation offices, the Boston Mayor's Office of New Urban Mechanics (MONUM) evaluates projects, mining both for success and "learnings" (what others call failure), and bravely publishes these insights. The team "exists to take risks that traditional city departments might not be able to take." And as Nigel Jacob, MONUM cofounder, put it, "Other departments can't fail. We can."³⁶

In his book *Think Again*, Adam Grant pointed out that organizations that are successful in learning, adapting and changing do so by creating a culture of psychological safety and accountability. Organizations with psychological safety accelerate innovation by allowing road-blocks to be interruptions or detours rather than dead ends. The table below describes the characteristics of teams with and without psychological safety.

Table 2. Psychological Safety

| When you have it | When you don't |
|---|--|
| See mistakes as opportunities to learn | See mistakes as threats to your career |
| Willing to take risks and fail | Unwilling to rock the boat |
| Speaking your mind in meetings | Keeping your ideas to yourself |
| Openly sharing your struggles | Only touting your strengths |
| Trust in your teammates and supervisors | Fear of your teammates and supervisors |
| Sticking your neck out | Having your head chopped off |

Source: Grant, *Think Again*, page 210

Struggle and failure are a natural part of the process of succeeding. Michael Jordan missed nearly 1,500 free throws in his career, but he's still one of the greatest athletes and most accomplished basketball players of all time. He didn't let missed shots stop him from staying in the game. Julia Child famously dropped a roast chicken on the floor during her live television show and just picked it up and gamely kept on with her cooking and teaching. These individuals didn't give up in the face of setbacks, they kept trying. We can't all be as talented as Michael Jordan or Julia Child, but like them, we can persist in the face of setbacks.

Failure can bring positive surprises if we are open to adapting as we learn. Kleenex is a must-have for the cold/flu and allergy seasons but wasn't created for that purpose. It was designed to remove cold cream and later marketed for runny noses only when makers saw how it was being "misused" by customers. Kevlar was created as a replacement for steel in tires, but now has many other uses including in bulletproof vests for law enforcement and the military. Bubble wrap was designed to be a textured wallpaper and only years later was reinvented as a packing material. The well-known drug for men, Viagra, only exists because of failure—it was created to treat high blood pressure and chest pain. Despite the fact that it did nothing for those problems, the men in the clinical trial wanted to keep taking it.

36. New Urban Mechanics. [Link](#).

That's when the drug company realized they were onto something—treating a condition the men had felt embarrassed to discuss with their doctors, but the “little blue pill” became something they wouldn't give up. The industry now grosses billions a year—all because of a failed drug experiment.

In his book *Imagine*, Jonah Lehrer tells the story of Arthur Fry, an engineer in 3M's paper products division who attended a 1974 presentation by a colleague on a failed R&D project that made an adhesive that didn't stick well. After the presentation, he put the idea out of his mind, because “What good, after all, is a glue that doesn't stick?”³⁷ Later, frustrated that the paper bookmarks he put in his church choir hymnal sometimes fell out, used this adhesive that didn't stick well as a bookmark. At 3M, where Fry worked, employees can devote up to 15 percent of their time on research of personal interest, as long as they present their results to their colleagues, so he was able to play with this idea. He worked on it for months, and finally he got it right and gave some to colleagues to try. But they never asked him for more bookmarks, because they just moved the bookmark from one book to another. It was a failure as a bookmark. Weeks later, he was going to write a memo to his boss about a specific paragraph in a report. Instead, he put a square of his adhesive paper on the report with his comment. The boss wrote back, on another sticky square. And thus the sticky note was born—a child of repeated failure and a lot of creativity and patience.

A similar culture of embracing imperfection and creating an environment of experimentation, iteration, and continuous learning was key to the success achieved by Mayor Greg Fischer and his team in Louisville in the many ways the city innovated in response to the pandemic. Grace Simrall, chief of civic innovation and technology in Louisville, sees the upside of the way the pandemic forced city staff to quickly innovate along multiple simultaneous fronts. She said, “There was an immediacy and urgency to the problem solving right as the pandemic hit. Hurling from one problem to another and trying to solve multiple problems at once was a forcing function—people didn't have time to bemoan the fact they had to solve the problem quickly and not perfectly. In that environment, we all know it's not going to be perfect.”

Great leaders are curious, and foster curiosity in others.

Curiosity is an innovator's superpower. Influential twentieth century social scientist James Q. Wilson had a wide-ranging curiosity and his questions often led him to surprising discoveries. He once said, “I've tried to follow the facts wherever they land. Every topic I've written about begins as a question: How do police departments behave? Why do bureaucracies function the way they do? . . . I can honestly say I didn't know the answers to those questions when I began looking into them.”³⁸

In his book *Think Again*, Adam Grant recalls giving a speech at a conference. In the audience was his friend, Nobel Prize winning psychologist Daniel Kahneman, and when Grant talked about a finding from his research that contradicted what Kahneman had found, Kahneman's “eyes lit up, and a huge grin appeared on his face.”³⁹ Rather than get defensive of his own research, instead he took joy in being wrong. As Kahneman later told Grant, “Being wrong is the only way I feel sure I've learned anything.”⁴⁰ Grant connects this “joy of being wrong” with a curious, scientific approach to inquiry and problem solving.

37. Lehrer, p 46.

38. Bernstein. “James Q. Wilson: Fertile Thinker, Friend of Facts,” *The New York Times*, August 22, 1998. [Link](#).

39. Grant, *Think Again—the Power of Knowing What You Don't Know*, p.61.

40. *Ibid*, p.62.



Grant described an experiment where startup business owners were invited by researchers to a training program for entrepreneurs. One group learned the “scientific” approach, which meant testing hypotheses of their business strategy and interviewing customers to flesh out the idea, then experimenting with a prototype or minimum viable product, evaluating it, and revising. The experimental groups of entrepreneurs changed their approach twice as often as the control group and ended up with 40 times more revenue in the year following the program than the control group.⁴¹ While government isn’t about generating revenue, this concept of being 40 times more successful by using experimentation to perfect an idea could help government be more customer-focused and develop solutions in an iterative fashion incorporating feedback along the way.

This sense of curiosity was a hallmark of the work by Louisville’s first innovation director, Ted Smith, whose attitude is, “I am a scientist, and I don’t know the answer, but we can get to the answer.” His advice to others is, “Be curious. Admit we don’t know it all. It’s Jurassic Park every day of the week here. Every time we think we’re the smartest one in the room, we get frustrated.”

Confident leaders welcome ideas, and don’t reject them too quickly.

To have a good idea, we often need to have a few bad ones first. In fact, the multipurpose tool-box favorite WD-40 got its name from the fact that the first 39 formulations failed. Vacuum cleaner innovator James Dyson had 5,271 failed prototypes before he landed on the one that worked. And even then, he wasn’t able to find a company to partner with him on manufacturing and distribution, so he had to create his own.⁴² Sometimes we have a lot of bad ideas before the good or even excellent ones come.

When Bob Galvin was CEO at Motorola, he had a rule that anyone coming to a brainstorming meeting with him would not be admitted without 100 ideas. Why 100? Because to get to 100 ideas, each meeting participant was forced to generate expected ideas and then still have a long way to go, and would then be forced to create some unusual ideas.

41. *Ibid*, p. 21.

42. Patel, “8 Successful Products That Only Exist Because of Failure.” [Link](#).

As Harvard Business School scholar Rosabeth Moss Kanter pointed out, “Indeed, an organization is more likely to get bigger ideas if it has a wide funnel into which numerous small ideas can be poured. One of the secrets of success for companies that demonstrate high rates of innovation is that they simply try more things.”⁴³

Don’t reject ideas too quickly, as transformational change is often initially rejected. If I talk on the phone while mopping the floor, I’m benefitting from two inventions that survived initial rejection. When first presented with the idea for the iPhone, Steve Jobs reportedly said, “That is the dumbest idea I ever heard.”⁴⁴ It took six months for his engineers to convince him to get on board with this crazy idea. A Swiffer is to a mop what the iPhone is to a landline—a complete rethinking of everything. Yet Proctor and Gamble didn’t like the idea at first, and it was over a year after the first prototype was shown that the persistent pushing of the inventors got leadership to accept the idea. Now, having ushered in the post-mop era, Swiffer has the honor of being widely imitated.

All employees have something to contribute to innovation.

Cities, counties, and states are increasingly giving employees the tools to innovate the processes and policies that guide their work through innovation academies and lean process improvement workshops, many modeled on the pioneering work of the Denver Peak Academy.⁴⁵ Frontline employees are the ones who often best know how to solve a problem. According to Stephen Goldsmith, Derek Bok Professor of the Practice of Urban Policy at Harvard Kennedy School and former deputy mayor for operations in New York City, “While mayor of Indianapolis, I used to walk around offices and talk to field crews, asking them what one thing they would change to improve their jobs. Almost everyone had a worthwhile idea. What governments too often lack is a plan to change the culture and support those ideas, operationalizing enough of them to provide an incentive to those interested in continuous improvement.”⁴⁶



43. Kanter, “Innovation: The Classic Traps.” [Link](#).

44. Grant, *Think Again - the Power of Knowing What You Don't Know*, p.30.

45. “Employee-Driven Process Improvements.” [Link](#).

46. Goldsmith, “Good Ideas From Government’s Front Lines.” [Link](#).

Toyota makes it everyone's job to do quality review and anyone working on the production line is empowered to stop production if they see an error. Not only can they be involved at the execution end of the process, but all employees are invited to suggest fixes to the manufacturing process itself. Harvard Business School innovation scholar Rosabeth Moss Kanter noted an example where a fabric company with a new CEO decided to open the innovation discussion beyond the elite innovator team and ask all employees for input on how to prevent their fabric from breaking down. She pointed out that, "After a meeting discussing the need for change, a veteran factory worker, who had joined as a young immigrant and still spoke with a heavy accent, tentatively approached the new executive with an idea for ending the breakage. The company tried it, and it worked. When asked how long he had had that idea, the worker replied, '32 years.'"

Many voices made for better innovation in Seattle. Several years ago, Seattle convened a team from the police department, the city council, and the city's innovation office to develop a strategy to address declining numbers of police recruits. The work involved qualitative and quantitative data, and broke the hiring process down into 17 steps so each could be examined for its efficiency and effectiveness. A survey gathered input from all police department staff, and over 1,000 ideas were generated in facilitated discussions. In addition to the survey, the innovation team used human-centered design to create listening sessions that were held at times and locations convenient to officers, including at 3:00 a.m. to make it easy for night shift police officers to share their thoughts. Historical analysis of applications by race and gender and by step of the hiring process helped identify patterns of greatest concern. Similarly, analysis of separation data helped narrow the focus to the officers most at risk of attrition and the reasons why they left so preventive measures could be devised. The work led to a strategic roadmap of recommendations and led the police department to hire someone internally to implement the recommendations and track data on progress.⁴⁷

The public may have valuable ideas and fresh perspectives to contribute.

Voices from outside government must be brought in to make the federal stimulus more effective, and also more relevant to and impactful for historically underrepresented groups. Gathering the perspectives of local residents, advocates, academics, and private sector leaders brings fresh ideas to government—all the more important at a time that demands bold ideas. Technology makes it far easier than ever before to gather stakeholder input and to maintain ongoing engagement in your planning process, as well as providing customer feedback with satisfaction during the process. The pandemic has energized civic engagement with online access to previously cloistered "public" meetings, typically attended by a small but vocal minority. Now virtual platforms, particularly if they allow asynchronous contributions, will significantly increase the public's ability to not only have input, but to feel they are truly part of the process. Participatory budgeting, virtual town halls, customer feedback surveys, online suggestion boxes, and many other new models of engagement offer templates for getting public input on stimulus spending plans.

One promising effort under way in Salt Lake City is aimed at making civic engagement easier. Chief Data and Geographic Officer Nick Kryger is creating a 3D way for the public, city council, and the mayor's office to literally "see" how proposed projects will fit into the city. Several apps are designed to get the public more engaged in civic participation. One is an interactive redistricting map that will allow the public to pull census block data into and out of council district

47. "SPD Recruitment & Retention Workgroup Report." [Link](#).

boundaries to essentially role play at doing the redistricting themselves. The app also allows the public to provide comments to the city council on how they feel about various redistricting plans. Another civic engagement app will give the public a view into the process of funding capital improvement projects. An interactive map will allow users to see capital improvement requests by location, along with related data such as total population by racial and ethnic group, household income, housing type by racial and ethnic group, health outcomes, education levels, internet access, employment, and the like. The tool is planned to be used to help the city to build out fiber in the areas where need is greatest and where it will close gaps for historically underserved areas.

Innovation culture and infrastructure takes time to institutionalize, but will pay dividends.

Using federal stimulus funding as a lever for lasting change, state and local government leaders should institutionalize innovation culture and permanently embed innovation organizations and skills in the fabric of government, because innovation may not always be warmly embraced in government—or even understood. Ted Smith, the first Innovation Team director in Louisville recalls being addressed by a skeptical city council immediately after his appointment and being asked, “Well, Dr. Smith, what innovations have you scheduled?”

In some state and local governments that have hired chief innovation officers, the tenure of the individual defined the duration of the role. In some cases, they depart faster than the elected official who appointed them. Some endure and become part of the infrastructure of government. Paul Kresser, Denver’s chief data officer, notes the importance of creating policy and practice that will outlive any particular individual or organizational structure. As he pointed out, “If you don’t formally institutionalize the policies, processes and practices, it will quickly dissolve when the initial people leave.”

To institutionalize the tools, methodologies, and the way of thinking an innovator brings to government, the work has to become part of ongoing operations. This can be done via embedding it in a larger organization where it won’t be subject to being rebranded or removed by the next administration. For example, the analytics function has been codified in city charter in Kansas City. In Massachusetts, the innovation function is embedded in the state’s budget and policy office, making it less susceptible to political change. And in Indiana the Performance Management Hub has its authority enshrined in both executive order and statute.

Louisville Mayor Greg Fischer’s interest in innovation is so strong that even when budget cuts were needed in 2019, the Innovation Team was protected, taking a much smaller rate of decrease than the rest of city government. This was partly due to the mayor’s commitment to continuous improvement, and also because the team had been able to demonstrate returns on the investment, and has attracted outside funding via philanthropy and corporate partners.⁴⁸ During the 2019 citywide budget crunch, the innovation responsibilities were merged into the Department of Information Technology and the team is now the Office of Civic Innovation and Technology (CIT). This IT department is a centralized city IT department, which gives the Office of Civic Innovation and Technology a citywide set of relationships and the power to set citywide IT standards. The rationale to embed innovation into the technology function was so the entire IT department would embrace innovation as part of its work. Embedded in such a critical citywide function, the work of the Innovation Team is now permanent. Even if there is a mayoral transition, innovation will stay.

48. Wiseman, “Discovering the True Value of City Data Experts.” [Link](#).

Creating lasting infrastructure as a foundation for innovation is important. Specifically, leaders should:

- **Invest in data and digital infrastructure.** As the pandemic clearly demonstrated, making investments in data infrastructure pays off when data can be accessed quickly. In Boston, a multiyear citywide data warehouse project meant Chief Data Officer Stefanie Costa Leabo was able to provide her mayor with a real-time integrated COVID-19 dashboard in a matter of days.⁴⁹ Investing in data infrastructure is an eligible expenditure of stimulus funds that will generate both immediate and future benefits.
- **Build digital “highways.”** Leading digital governments have put attention on building the infrastructure for digital transactions, whether it be the X-Road in Estonia or digital payments and digital identity services in Singapore, or the digital government portal and transaction infrastructure in the UK. Creating the infrastructure that enables digital transactions allows efficient flow of data and transactions across government, just as the interstate highway system enables interstate commerce. Building these “highways” for digital transactions is far more efficient than allowing each agency or department to build their own. While each agency may think they have unique needs that require their own capabilities, the greater good is served by creating platforms that can span the entirety of government and be used interchangeably by many agencies and departments, with a seamless user interface and customer experience. The alternative is a dizzying patchwork of services that don’t all connect to the same back-end master data, duplicating structures and systems at greater cost (and frustration) to the taxpayer.



Action steps for leaders

Leaders must create the conditions for success by setting a vision, creating an innovation culture and providing resources for their teams. Key actions for chief executives in government to foster innovation include:

- **Think big and create a bold vision** as this is the time for lasting change and new approaches to delivery of government services, and big ideas are shown to bring more lasting change than small ones.
- **Create a dedicated team tasked with embedding data and innovation skills** across government, and especially in any stimulus-funded projects.
- **Set aside some stimulus funding for innovation** and make sure to signal across the organization that innovation will be a priority and risk-taking will be rewarded. Then reinforce that commitment by assuring that the dedicated innovation funding has some flexibility.
- **Anchor stimulus funding in data**, building data capacity via staffing of data, evidence and innovation teams. Stimulus funds can support both staff and data infrastructure that will pay dividends far longer than the funding itself lasts if capacity for turning data into insight becomes part of the culture.
- **Create permission to fail** so experimentation will lead to learning and iterative improvements that foster long-term and large-scale innovation.
- **Foster curiosity** and a spirit of inquiry and allow exploration of many divergent ideas as staff pursue curiosity projects.

49. Descant, “Boston Mayor Walsh Names New CDO, First CISO,” [Link](#). And Ropek, “Boston Turns to Data Analytics to Track COVID-19 for Residents.” [Link](#).

- **Welcome ideas, and don't reject them too quickly** because many important innovations were originally rejected, and it takes many ideas to generate good ones.
- **Empower all employees to innovate** because everyone has ideas about how to improve their work; most just are never asked for their input or given the tools to make systemwide change. Further, democratizing innovation builds buy-in for change, which speeds adoption.
- **Gather public input** so many voices are heard, particularly those of historically underrepresented groups. Co-creating with the public also improves accountability and transparency, which may lead to greater satisfaction with the operations of government.
- **Institutionalize innovation** so the near-term stimulus energy and fresh ideas are permanently embedded in organizational culture.



CONCLUSION

As one pioneering government innovator said, “What people are looking for is permission to take risks because government is full of people who are risk averse. Reward and recognition for risk-taking can help. When empowered, innovators in government are gonna go fix stuff.”

This is an exciting time to be in government. The next few years offer a lifetime of opportunity to invent new models of public service governance in a continuous cycle of improvement and customer service excellence. Along the way, if we do it right, we might even restore the public's faith in government.

There's much to do, and it's time to begin to “fix stuff” in government.

SOURCES

Allen, Thomas J. *Managing the Flow of Technology*. MIT Press, 1984.

Bar Am, Jordan, Laura Furstenthal, Felicitas Jorge, and Erik Roth. “Innovation in a crisis: Why it is more critical than ever.” McKinsey and Co., mckinsey.com, 17 June 2020. [Link](#).

Bernstein, Richard. “James Q. Wilson: Fertile Thinker, Friend of Facts,” *The New York Times*, August 22, 1998. [Link](#).

Bloomberg Associates, *Digital City Tools: Driving Change Through Technology, People and Digital Practices*, Bloomberg Associates, October 2020. [Link](#).

Borins, Sandford. *The Persistence of Innovation in Government: A Guide for Innovative Public Servants*. [Link](#).

City of Syracuse. “Our Impact.” Innovatesyracuse.com. Accessed: 22 June 2022. [Link](#).

“Continued Impact of COVID-19 on Public Sector Employee Job and Financial Outlook, Satisfaction, and Retention.” Mission Square Research Institute, March 2022. [Link](#).

Descant, Skip. “Boston Mayor Walsh Names New CDO, First CISO.” *Government Technology*, govtech.com, 1 March 2019. [Link](#).

Duhigg, Charles. *Smarter, Faster, Better: the Transformative Power of Real Productivity*. Anchor Canada, 2016.

Eaves, David. “The first decade of open data has been a win—but not for the reasons you think.” *Apolitical*, apolitical.co, 4 January 2019. [Link](#).

“Employee-Driven Process Improvements.” The Ash Center for Democratic Governance and Innovation, Harvard.edu. Accessed: 22 June 2022. [Link](#).

Franklin D. Roosevelt. “Oglethorpe University Address.” 22 May 1932. [Link](#).

Freed, Benjamin. “Why government technologists love the Domino’s pizza tracker.” *State Scoop*, statescoop.com, 23 September 2021. [Link](#).

Garces, Santiago and Mike Sarasti. “Digital Government Transformation at Full Speed.” MetroLab Network, vimeo.com, 24 September 2020. Digital Conference. [Link](#).

Goldsmith, Stephen. “Good Ideas From Government’s Front Lines.” *Governing*, governing.com, 19 July 2015. [Link](#).

Grant, Adam. *Think Again—the Power of Knowing What You Don’t Know*. Independently published, 2021.

Jacob, Nigel. *Guide for Embedding Breakthrough Innovation in Local Government*. City Accelerator, livingcities.org, 12 January 2015. [Link](#).

Johnson, Steven. *Where Good Ideas Come From: The Natural History of Innovation*, Riverhead Books, 2010.

Kamensky, John. *The Evolution of Innovation in the Federal Government*. [Link](#).

Kanter, Rosabeth Moss. "Innovation: The Classic Traps." *Harvard Business Review*, November 2006. [Link](#).

Kennedy, John Fitzgerald. "Moon Speech." Rice University Stadium. 12 September 1962. [Link](#).

Lehrer, Jonah. *Imagine: How Creativity Works*. Houghton Mifflin, 2012.

New Urban Mechanics. "Civic Fables: Developing New Language of Failure in Local Government Innovation." August 2019. [Link](#).

Noveck, Beth, and Stefaan Verhulst. *Encouraging and Sustaining Innovation in Government*. [Link](#).

Office of King County Executive Dow Constantine. Equity and Social Justice Strategic Plan 2016-2020. kingcounty.gov/equity. 2020. [Link](#).

Office of the Mayor, The. "Resilience Corps," Sanjoseca.gov. Accessed: 22 June 2022. [Link](#).

Patel, Sujan. "8 Successful Products That Only Exist Because of Failure." *Forbes*, forbes.com, 16 January 2015. [Link](#).

Roman, John. "Go Big or Go Home: Why Bold Reforms Work, and why Little Reforms Don't Grow up to be Big Reforms." johnkroman.substack.com, 13 November 2021. [Link](#).

Ropek, Lucas. "Boston Turns to Data Analytics to Track COVID-19 for Residents." *Government Technology*, govtech.com, 31 March, 2020. [Link](#).

Shark, Allen. *Innovation and Emerging Technologies in Government: Keys to Success*. [Link](#).

"SPD Recruitment & Retention Workgroup Report." Seattle Innovation and Performance, seattle.gov, 30 August 2019. [Link](#).

United States Department of the Treasury. American Rescue Plan (ARP), Coronavirus State and Local Fiscal Recovery Funds (SLFRF) Overview of the Final Rule, January 2022. [Link](#).

Wiseman, Jane. "Discovering the True Value of City Data Experts." Data Smart City Solutions, Harvard.edu, 8 November 2017. [Link](#).

INTERVIEWS WITH AUTHOR

Bender, Kate, Chief Analytics Officer, Kansas City, October 22, 2021.

Bower, Andrell, Chief Data Officer, City of San Diego, November 16, 2021.

Cotterill, Ted, CIPP/US, Chief Privacy Officer, State of Indiana, General Counsel, Indiana Management Performance Hub, August 26, 2021.

Fasoldt, Josie, Senior Director of Engagement and Analytics, Indiana Management Performance Hub, September 1, 2021.

Kryger, Nick, Chief Data and Geographic Officer, Salt Lake City, October 21, 2021.

Kresser, Paul, Chief Data Officer, City and County of Denver, November 2, 2021.

Lee, Jihae, Director of Social Innovation Finance, Commonwealth of Massachusetts Executive Office of Administration and Finance, November 10, 2021.

Reidel, Denise, Chief Innovation Officer, City of South Bend, November 1, 2021.

Schigoda, Melissa, PhD, Director, Office of Performance and Accountability, New Orleans, November 9, 2021.

Simrall, Grace, Chief of Civic Innovation and Technology, Louisville Metro Government, November 23, 2021.

Smith, Ted, Associate Professor, Environmental Medicine, University of Louisville School of Medicine, January 5, 2022.

Walha, Tina, Director of Public Digital, US Digital Response, November 29, 2021.

Williams, Megan, Director, Denver PEAK Academy, January 12, 2022.

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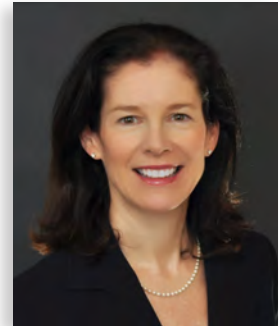
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