



Guide for Embedding Breakthrough Innovation in Local Government

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Overview

Government is often thought of as a place where good ideas go to die. We who work in local government know this is not true. We also know, however, that cities' current set of approaches and solutions won't be enough to address our most pressing challenges. We need more and fundamentally different ways to deliver public value, and to understand and address wickedly complex problems.

This guidebook is intended to give local leaders a practical, action-oriented framework for **breakthrough innovation**: a set of approaches and practices out of the startup and municipal innovation worlds that help practitioners break out of deeply-embedded assumptions about how government is supposed to operate and open new possibilities for problem-solving and impact. Breakthrough Innovation:

- Establishes an organizational culture that is primed for taking big leaps forward in the quality and kinds of services and programs that are delivered
- Focuses a city's attention on the priorities, needs and experience of the city residents as "users" of the city
- Creates a culture where city employees can experiment, take appropriate, strategic risks, and collaborate effectively within and outside city hall, including with private sector companies and communities, and
- Treats innovation and out-of-the box thinking as a day-to-day activity, rather than a standalone practice to be implemented by specialists.

This guide is written for participants in the City Accelerator's first cohort on embedding innovation in local government, as well as other cities and intermediaries interested in municipal innovation. Its contents are rooted in my experience as a co-founder, along with Chris Osgood, of the Mayor's Office of New Urban Mechanics in Boston, where we've adopted the approaches described in this guide, along with the experiences of my many pioneering colleagues in the City, as well as nationally in tech, design, and other fields in the municipal innovation world, inside city government and out.

Guide Structure

In addition to my own experience and that of my colleagues, this guide is also rooted in a set of deeply-held beliefs about what the culture and focus of government should be. You will see in these pages that I do not shy away from articulating these values – to me, they are as important if not more so than the specific actions I hope you might take as a result of reading this guide. Accordingly, the guide is structured as a set of nine "imperatives" for change in the culture and practice of local government, organized in a set of three, loosely organized stages. These stages follow a general sequence that I've observed in the field and in my own work. You might well find it advantageous to take them up in

a different order, or in bits and pieces at a time. For each imperative, the guide outlines:

- What the imperative is and the role it plays in Breakthrough Innovation

- Why you should care about the imperative
- How to implement the imperative, including specific steps city teams can use to get started and profiles of the imperative in action.

Breakthrough Innovation: Guiding Values

The four elements of Breakthrough Innovation are grounded in a set of deeply held beliefs about what the culture of government should be. These are:

- **People First:** As a public-serving enterprise, government operations should consistently prioritize the needs and experience of people over the needs of the bureaucracy. A city's innovation practice should also be rooted in the shared values and deepest aspirations of its residents.
- **Open Innovation:** While civic engagement is often treated like a check-the-box exercise in public process, we see it as a fundamental, and often-misunderstood, part of social innovation and policymaking. City residents bring lived expertise and their own ingenuity to the process of understanding problems and developing and testing innovative solutions.
- **Public Entrepreneurship:** Government is fundamentally a social venture. As such, it should be guided by a spirit of principled entrepreneurship, supporting strategic risk-taking and a culture of constant learning and evolution. Public servants should be empowered with the support and tools they need to create, pilot and scale new ways of working.
- **Culture of Innovation:** Innovation cannot just be just the job of one person or of highly-paid consultants. Nor can it be solely a top-down mandate. Rather, all city employees should be empowered, encouraged, and given the leeway to innovate so that new and breakthrough ideas can come from every corner of a city's administration -- and so that innovative ideas diffuse more easily across administrations and cities.

Breakthrough Innovation and Incremental Innovation

We in local government tend to equate all innovation with incremental change in how we deliver services, develop and deploy programs, etc. This incremental approach is important and is grounded in solid management practice, but we need to be able to find ways to take big leaps forward along with small, steady steps, and to challenge and expand our own thinking about the truly hard problems we face and how we can solve them, in order to realize our greatest ambitions for our cities. I use the term "Breakthrough Innovation" here to differentiate the approach described here from an incremental approach.

Stage I: Prepare for Breakthrough

Many people think that the first step for an innovation practice is to get your mayor to issue an executive order, or to get enabling legislation from a city council. If this is feasible for you, it's worth thinking about. But in many cases it won't be. And truth be told, an executive order issued or law passed without the necessary groundwork can raise expectations before your city is actually ready to hit the ground running. Three steps, while they may seem rudimentary, can help you take your Breakthrough Innovation practice farther, faster.

Imperative 1: Tell Your Innovation Story

Your city's "innovation story" – your narrative about how innovation will help the city accomplish its greatest ambitions – is the bedrock of your Breakthrough Innovation practice. Telling your innovation story helps build understanding and excitement

about the work among colleagues and potential partners. This is true both of the innovation practice overall, and of individual innovation projects. This section will help you craft or refine your city's innovation story.

Imperative 2: Focus on the Issues That Matter

While it can be tempting to work on uncontroversial “small wins,” your innovation work should focus primarily on city residents’ highest priorities lest it come to be seen as irrelevant or devoid of substance. An innovation office or team should be central – not marginal – to the advancement of the administration’s agenda. This section will help you identify high-priority issues around which to develop your pipeline.

Imperative 3: Orient towards People

The area with the greatest opportunity for civic innovation is not within city hall, but rather in the space between city government and its residents. A core facet of that space is how city residents experience an administration’s services, programs and policies. This section will help cities to incorporate the dot-com world’s practice of user experience to increase resident satisfaction with and utilization of city services.



Louisville Mayor Greg Fischer with the Dalai Lama. Mayor Fischer has championed Louisville as The World's Most Compassionate City.

Stage II: Establish a Culture of, and Structures for, Breakthrough Innovation

Creating a culture of innovation – a set of norms that guide and sustain innovation – is what distinguishes a great organization (Google or Amazon) from an average one (lots of examples out there). In local government it is indeed possible to establish such a culture but it requires a careful consideration about encouraging risk-taking while also managing risk, giving employees the freedom to explore, etc. In this stage, your focus should be on building the necessary support, structures, norms and partnerships to make your innovation practice self-sustaining.

Imperative 4: Give Innovation a Home

Every city department has a dual mandate to execute and to innovate. It can feel nearly impossible to do both, and the necessity of daily execution usually takes precedence over transformative innovation. Consequently, cities need to dedicate separate staff to focus exclusively on cultivating their practice of innovation. This section will walk through the ins and outs of setting up an institutional home for innovation, including calibrating your use of mayoral authority and setting your innovation team up for success.

Imperative 5: Support Strategic Risk-Taking

Failure is generally a scary proposition for any government official, but innovation requires the possibility of failure. In fact, failure is an essential part of the innovation process, providing important data

to guide future successes. An innovation practice must thus allow for, and even expect, some failure. This section will help you manage risk in a way that facilitates, rather than inhibits, innovation.

Imperative 6: Collaborate to Innovate

City governments typically don’t have all the resources, skills or knowledge (e.g., design, leading technology) needed to deliver innovative services and programs. Having good partners to help fill those gaps is critical. Local entrepreneurs, businesses, universities, nonprofits, and residents can offer ideas, skills, time, passion, and resources for innovation projects -- and also generate the external support necessary to help sustain innovation when fires pop up inside city hall. This section will focus on the mechanics of creating and nurturing innovation partnerships.



Graduates of Nashville's Ideas to Reality program, which cultivates innovators inside and outside of local government, with Mayor Karl Dean

Stage III: Embed Breakthrough Innovation in Your Day-to-Day Work

Understanding innovation in the abstract is one thing; building it into day-to-day work is another. This section will help you enlist your colleagues across local government as partners in the brass tacks of innovation while still keeping the trains running on time.

Imperative 7: Go Agile

An agile approach is an iterative methodology for experimenting, learning and adapting so that projects stay focused on delivering value with and for residents and that bad hypotheses get weeded out at low cost. Agile is a vital part of managing the risks of innovation because it allows us to break big, scary bets down into small, testable bites. This section will help you and your colleagues get on your way towards building agile approaches into your city's innovation practice.

Imperative 8: Be Prolific

While traditional management theory would encourage you to focus on doing a few things really well, our experience suggests that an innovation team should run a large number of projects at once. It is unknown which innovations will be successful and which ones won't, so the office always needs to be building plenty of partnerships and pursuing many pilots. Having many projects running simultaneously means that regardless of whether projects succeed or fail, there are always new innovations in development. This section will help you develop a healthy pipeline of projects without

stretching yourselves too thin or sacrificing the quality of any given project.

Imperative 9: Grow the Field, Within and Outside Your City

It is critical that your innovation team learn from its various projects and experiments and incorporate that learning into its practice on an ongoing basis. This is as true of other cities' work as it is of your own city's. Many cities across the country are working to innovate with, and for the benefit of, their constituents. This section will help you work with other cities to share ideas, learn from their actions and then direct your own efforts accordingly.

An innovation practice must allow for, and even expect, some failure.

The pages that follow describe these imperatives in greater detail. We will build out and update this guide as we learn more from the efforts of the cohort cities, get feedback from readers and refine our thinking. We encourage and request your participation in this effort. Email me at njacob@livingcities.org, or tweet at me (@nsjacob) or at Living Cities (@Living_Cities) with your thoughts, or blog your own ideas about municipal innovation and send them to us.

STAGE I: Prepare for Breakthrough

We in local government tend to equate all innovation with incremental change in how we deliver services, develop and deploy programs, etc. This incremental approach is a reasonable starting point and is grounded in well-understood management practice such as Business Process Management, Six Sigma, etc. and has made government, on balance, more effective, more efficient and more able to deliver better service than it has ever been. And yet, at the same time, trust in government is lower than ever in many parts of the country. There could be many reasons for this, but for those of us working in local government, it reinforces the urgency of finding fundamentally new and better ways of solving seemingly intractable problems.

In short, local government's traditional focus on incremental change can no longer be the only approach to change and innovation that we employ.

We need the capacity to create the conditions for big leaps forward in how we deliver services. We need the capacity to enable (and manage) disruptive innovations that will enable us to take on the really hard problems we face in our cities, such as overhauling our local education systems, creating new models of affordable housing for both the young and old, and climate change. These challenges require both a culture of continuous improvement and sustaining innovation as well as a culture that supports Breakthrough Innovation.

Imperative 1 - Tell Your Innovation Story

What

Establishing a practice of Breakthrough Innovation in local government starts with telling a story to your various constituents about the role that an innovation practice will play in the broader context of the city. For example, in Boston, our story began with a description of the management style of our then-mayor, Tom M. Menino, and how his people-centered approach to running the city could be augmented by a people-centered approach to innovation. This story evolved into The Mayor's Office of New Urban Mechanics.

An innovation story is, at its heart, an elevator pitch grounded in the core values and greatest aspirations of your city, that links to the innovation goals you are developing and testing for your Breakthrough Innovation Practice. It should evolve as your practice evolves and be customizable for various audiences throughout the city.

Why

Telling the story of your innovation practice serves three purposes:

1. A good story will enable potential collaborators (and funders) to be inspired by your work and thus more likely to want to work with you.

2. It encourages a process of reflection wherein the innovation team looks inward at what they do and how they work to explore areas of improvement and / or new topics of work.
3. It creates a context for your colleagues to align themselves with your innovation practice.

How

1. Create Your Innovation Elevator Pitch. A good pitch has three basic elements:

- **Clear, Concise and Short:** Brevity is a useful discipline to get into since you often have only a few moments to communicate your work and why someone should be interested in it.
- **Compelling:** A good pitch gets you in the gut and in the head: It should be rooted in your city's core values and aspirations, and should also just be an interesting story that somebody actually wants to hear. It should also relate to important outcomes on lives of people, especially vulnerable populations.
- **Believable:** Your pitch should be bold but also realistic -- a listener should be able to believe that your team and its approach can deliver. Be ambitious but be sure that your goals are achievable as outcomes in real people's lives. Connect your work to the big challenges that your city is facing.

2. Deliver your pitch. Again and again. To anyone who will listen. Use your pitch to build interest in your work and to build momentum and deliver it to a wide variety of constituents. Be sure to pay attention to your audience and gauge their reactions to what you are saying. Is the tone right? Do they like or dislike your phraseology, etc.?

As you gauge people's reactions and get feedback, you'll iterate on this pitch many, many times. You will also likely develop variations on the pitch for audiences with different priorities (e.g., civic technologists, community groups).

3. Keep your pitch up to date. The pitch has to stay in sync with the work you are actually doing. If it lags, people won't get it. You should also use your pitch to tell your audience what you are learning over the course of rolling out your program, initiative, product, etc. This in turn means that your pitch should be evolving over time. If it isn't, it may mean that either you're not reflecting enough on the work as it evolves, or that the work is stalling.

Imperative 2 - Focus on the Issues That Matter

What

As your innovation team builds a pipeline of poten-

tial projects, it should only include those that address the highest priorities for the City's residents. An innovation office should be central – not marginal – in the advancement of the administration's agenda.

One of the first questions that an innovation team faces is "what do we work on?" This is the central question of government-led innovation teams since it will determine where you spend your time and the sort of impact you can expect to have. Often these

Innovation Storytelling and Risk Management

Managing the risk of innovation is key if the work is to keep and maintain support from our peers. Storytelling is a simple and engaging way to gather support for your Breakthrough Innovation practice, articulate why we're taking on any risks in a given project, and rally people around the potential benefits we will accrue if the project is successful.

teams may start out working on problems in the "low-hanging fruit" category. This may be useful for building momentum, but it can also pigeonhole the team into certain kinds of work in the eyes of your executive, peers, the public, etc.

A powerful answer to the question of "where do we start?" is to focus on the needs of your constituents. Listen to what your public is telling you is important to them. Listen to what the Mayor is telling you she is hearing from the public. Focus on what matters to people and what affects their lives. Using this as your starting point will give the innovation team powerful cover from detractors and will build credibility.

Profiles: Storytelling at TED and its influence on innovation culture

Telling stories is what TED is all about. TED is about taking complicated ideas and making them into simple, compelling stories that fascinate, delight and inspire listeners. For those of us in local government who are trying to build support for our work, there is an important lesson for us in TED. Indeed, our potential collaborators may be suspicious of us, but if you can get your innovation story down to something like a TED talk, the chances of people wanting to work with you are going to be much higher.

Three years ago, Jen Pahlka, the founder of Code For America, gave a talk that has since generated some three million hits. For many people, Pahlka's TED Talk served as their on-ramp for learning about the new world of Civic Technology and it continues to drive interest in this field. One of the memorable aspects of her talk was a short story about how civic tech in the hands of neighbors helped to set free a trapped possum in Boston. The "Possum Story" has almost become a legend in the lore of the civic tech world. It is elements such as these that make the story engaging, humorous and emotionally appealing.



Why

By starting with projects that matter to your residents, you set the starting conditions for working on projects that will conceivably be relevant in their impact. Focusing on less critical issues, even if successful, could likely end up producing breakthroughs that nobody really cares about.

Focusing on real areas of concern within your community will also encourage social and civic innovators to step forward to work with you. Creating partnership opportunities based on your willingness to tackle hard issues is key to building your network and ecosystem of supporters.

Adopting an approach that focuses on real issues also means that innovation shouldn't only be limited to technology. Innovation is about everything we do as local governments and we deliver lots of programs and services that have little to do with technology. Everything from delivering information via paper flyers to using performance art as a way of engaging in public discourse are all offerings that should be in the toolbox of your innovation teams.

How

1. Source initial priorities. There are several key sources you can look to to identify issues worth working on. These include:

- **Your local executive's strategic plan:** If you're in the mayor's office, it can be tough not to be seen as being responsive to his or her priorities, and you want him or her to be supportive of what you're doing. This should be your first filter when considering what to work on. The nice thing about this is that mayors' and city managers' priorities tend to be broad enough that you'll have a big canvas on which to paint.
- **Department heads and staff:** Department heads and their staff will have reads on what city residents are saying and what issues in their departments are affecting local residents. They won't always be right -- and in fact identifying places where their thinking is contradicted by reality is an important part of the breakthrough innovation process.
- **Individuals and Communities:** Community-serving organizations can identify issues

of primary concern to residents. It's also important to go directly to the people (more on this in Practice 3)

- **Operations Staff:** Operations staff can often identify "pain points" that indirectly affect the ability of city departments and front-line staff to deliver value to city residents.

Once you've identified potential priorities to start with, you want to filter those through criteria which can include:

- **Doability:** are the potential areas of work you are uncovering actually executable by you and your team with the resources and time you have available? What can you do without running into obstacles that will slow you down, like the need to change legislation?
- **Impact:** What outcomes can we realistically achieve and will they matter to anyone?

2. Start Doing Stuff. While your first impulse might be to do a listening tour and gain consensus around a framework for innovation before starting with any projects, this approach will only slow you down. Mayors want to see results, and while you're gathering information and massaging the lan-

guage in your report to fend off political sabotage, you can't produce anything. In New Urban Mechanics we're constantly listening and doing, doing and listening. It's worth noting that you may have to start small with collaborators on issues that matter and work your way up to bigger projects -- this helps to build partners' confidence that they can work with you to do big things.

3. Scout for Talent. Because your team will always be too small to do all the work that needs to be done, your collaborators are in some ways even more important than your projects. Whenever we evaluate potential projects, we look at whether our prospective partners can deliver. If you have to choose between a lackluster team with a great idea and a great team with a lackluster idea, our experience suggests that you can do more with the latter than the former.

As your go-to people start to come out of the woodwork, you can work with them to identify and hone projects with real potential for impact that we

can articulate to a lay audience and relate back to the core priorities we've identified and the impact of the work in the everyday lives of our residents. As your work progresses, you will cultivate a cadre of people working on projects aligned with core local priorities who have a good chance at delivering and adding value.

Getting Started

- **Go to The People.** Create opportunities for residents to be a part of determining what good services and programs look like. Go to community meetings to understand the issues and to engage residents in real conversations. Look for ways of using technology to encourage participation that builds on top of (and not just instead of) the community meeting model.
- **Connect with colleagues** in departments that align with the city executive's priorities. Look for people who are fired up about what needs to change and who have a track record of working well with others and delivering results.
- **Articulate your criteria for projects.** What's doable or not doable for you? What does impact mean for your team? By saying your criteria out loud or writing them down, you help your team develop consistency around, and continually test your hunches about, what kinds of projects really work.

Imperative 3: Orient towards People

What

The area with the greatest opportunity for civic innovation is not within city halls; it's in the space between city government and its citizens. Projects should focus on new tools that engage, serve, or address the issues of its residents.

Focusing on the needs of people can be a radical reordering of how we work in local government. When carried to excess, the prevailing emphasis on efficiency and cost savings in local government can crowd out a focus on the impact of our work on residents, or the quality of their experience with government. And yet a city's bureaucracy exists to further the interests of the people. Thus, a core part of a practice of Breakthrough Innovation is to put city residents back in the center, where they belong.

A people-centered approach to government has, as its primary objective, improving the experience of the city resident, both in general and in terms of interactions with government. It is grounded in the precept that every city service rolls up to a basic value proposition to the city's "users." And it borrows from the tech world's discipline of Human-Centered Design.

In the practice of Human-Centered Design, teams that are building products and services start their work by exploring users' needs. As basic as it sounds, the emphasis in this methodology is on listening. Through an iterative process of listening, observing, prototyping and adjusting, we can develop and improve products and services that deliver a superior user experience.

Profiles: Greg Fischer and the Compassionate City

Louisville mayor Greg Fischer is "a businessman who just happens to be mayor." Throughout his career, he's built successful companies. A core part of his approach is to ground the work of his enterprises in basic human values. High among those values is compassion.

For a businessman to go around talking about compassion "raised a lot of eyebrows" at first, says Fischer. "People think politicians are supposed to be tough. But when you go back and listen to the Kennedy brothers, for example, you hear a lot about love and brothers and sisters, a nation growing as a family, but in the last half-century a lot of that has been squeezed out of the discourse. As it turns out, people on both sides of the aisle respond to it well."

Mayor Fischer has used the vision of "The Compassionate City" to mobilize action inside and outside of City Hall. A committee co-chaired by the head of Louisville's Community Services and Revitalization Department and a private attorney has facilitated work to cultivate compassion across the city, including in top mayoral priorities including education and healthcare, and has generated tens of thousands of service-hours during citywide "weeks of compassion." As a result of this work, Louisville received a visit from the Dalai Lama in 2012 and has been dubbed "The World's Most Compassionate City" by the Charter for Compassion.

By emphasizing compassion, Mayor Fischer and his senior leaders have helped to embed the value in the city's civil service. "You hear people talking about what the compassionate thing to do is," says Theresa Reno-Weber, the mayor's Chief of Performance and Technology. "That wasn't happening before." Mayor Fischer is even considering whether there is some kind of metric that can be used to further advance the practice of compassion within his Administration. But, he says, the metric is secondary to the work. "It's about cultivating the soul of the city. Is that compassion or something else? What we call it matters less than what we do."

Why

Government is fundamentally a social enterprise. However, it's easy for government to get away from that and focus on its own needs at the expense of the needs, desires and dreams of the people. By bringing your constituents into the design process, you can directly understand and address the issues that they're seeing, the areas of impact that they're highlighting, and help deliver results that matter to them. When it comes to delivering public value, we don't -- and shouldn't -- have to guess what people want.

How

1. Develop a Practice of User Research. Understanding how your residents use (or don't use) your services and programs is key to being able to know where to focus your efforts. There are many different methods of doing this, and they can be quite simple. For example, Code for America's fellows have been known to sit in a social service office with cookies and lemonade and ask people about their experience in the office. Develop a few basic approaches and get your cadre of innovation talent to try them out as an initial step in your projects.

2. Designate (or hire) people as Product Managers.

This is something that we can learn from the startup world, where products have product managers. The product manager is a role in a startup that focuses on how people do or don't use the products that the company is producing. The product manager's job is to own the features of the product

(as opposed to the engineers, etc.) so that the organization is building the tools that people want to use as opposed to the tools that software developers want to build. Chances are pretty good you have at least a few people in your administration that already have this skillset but are just looking for cover to use it.

3. Draft a Set of Design Principles. Providing some lightweight guidance to your innovators, and for your own core team, can help people know what to look for as they assess and iterate on city services and programs. Your design principles should be simple and intuitive. For example, your principles could say that software should be "simple, beautiful and easy-to-use," or "don't make people do extra work." Five to eight basic principles should do.

Open Innovation

In the modern world, our constituents are increasingly able to have direct control and impact on the products and services they use (think Google or Amazon). These companies spend a great deal of time listening to their users, observing their behaviors and building products and iteratively rolling those services out to users.

This new world, in which our constituents are increasingly no longer seeing themselves as passive consumers but rather as "prosumers" (producer-consumer), means that local government must adapt the ways that it delivers services and programs to the public.

MIT Professor Erich Von Hippel has framed this way of actively engaging with "customers" as Open Innovation. Whether we call it Open Innovation or Human Centered Design or simply being People-Oriented, the intent is the same: solving the real problems of real people for real impact.

Getting Started

- **Do some mystery shopping** as a first experiment in user research. Try using the services and programs that your organization provides to the public. What kind of experience do your users have when they make use of government services?
- **Draft your design principles.** It doesn't have to be a binding document, and at first you might not even want to share it beyond your

team. But once you have a draft, you can test it out with colleagues and get feedback on it from your closest partners.

- **Learn up on Human-Centered Design.** There are some great, free resources out there, including IDEO's Human-Centered Design Toolkit and Acumen's free, online class on HCD.

Profiles: Code for America and "Guerrilla UX"

A few years ago, Code for America hired Cyd Harrell as their "User Experience (UX) Evangelist." User Experience is a practice of Human-Centered Design rooted in website development. Cyd set about helping Code For America's people, and local governments more broadly, make local government "simple, beautiful and easy to use."

As is often the case in Breakthrough Innovation, Harrell didn't have to generate this practice from scratch. Indeed, she soon discovered, Code for America's staff and fellows were already doing "guerrilla" versions of it in cities. "We would have fellows asking their local partners: 'hey, can I just sit in this office with cookies and lemonade and talk to people?'" Harrell's role has been to encourage and support practices like these and ensure that the spirit of User Experience pervades the work of Code for America and its partners.

The work, Harrell says, doesn't have to be difficult. "Jacob Nielsen, the father of usability, says you can understand usability by talking to only five people. He would say: 'The biggest difference in your knowledge is between zero people and one person.'"

User Experience brings a fresh perspective to the age-old challenge of providing city services that respect the time and dignity of the user of that service. "Why should people have to go through the humiliating experience of bending down to talk to somebody through bulletproof glass, or providing the same information over and over?" she says. While most of us understand this dimension of the problem, Harrell points out that the same is as true of the people who provide the services as the people who access them. "I've worked with web design teams, and it's really hard for them that they're trying to roll out improvements to their sites and not getting the feedback they need to make sure people actually like the changes." User experience, Harrell says, should touch both the front-end and the back-end of city operations.

Ultimately, according to Harrell, the goal is to make the user's experience a core part of how a service is evaluated. "Satisfaction isn't always the best metric, and it's certainly not the only metric, but it's a start to thinking about the tools civil servants are using and whether they're best empowering both the providers and users of civil services."



Stage II: Establish a Culture of, and Structures for, Breakthrough Innovation

Creating a culture of innovation is what distinguishes a great organization (e.g., Google or Amazon) from the many average ones. It is indeed possible to establish such a culture in local government. The key is to create the right conditions in which ready and willing innovators inside and outside your administration can flourish, and in which new innovators can be cultivated. Some of this work requires supportive structures, such as a dedicated innovation team. Other critical changes can be as simple as saying “yes” to ideas that might traditionally be non-starters. This section of the guide explores three key things you can do to establish the culture and structures of innovation.

Imperative 4: Give Innovation a Home

What

Every city department has a dual mandate to execute and to innovate. It can feel nearly impossible to do both, and the necessity of daily execution usually takes precedence over transformative innovation.

Consequently, cities need to dedicate separate staff to focus exclusively on innovation. This staff can work jointly with departments, providing a home to innovative efforts that departments often don't have the resources or the bandwidth to create and maintain.

One common misconception about innovation teams is that they have to “own” innovation. However, the purpose of an innovation team is to facilitate innovation, not to control it. When we look at successful innovation practices across cities, innovation teams generally serve as supports and “lightning rods” for innovation activities led by others inside and outside city hall, though the innovation team may drive certain projects that otherwise have no “natural” home. In Boston, the Mayor’s Office of New Urban Mechanics frames itself as a “civic innovation lab” which partners with other departments and external groups to develop innovative solutions, and take the driver’s seat on projects only when necessary.

Why

Giving innovation a home is about creating a center of gravity that can be used to build momentum and drive the Mayor’s innovation agenda forward. It can provide a place of collaboration where innovators both inside and outside of government can find each other and engage in the work of Breakthrough Innovation. An innovation team can also bring relatively unique skills and experiences that have yet to become commonplace in city administrations, such as human-centered design (discussed earlier in this

document) or agile development (discussed later). It also makes the cultivation of a citywide practice of innovation someone’s day-job, which is critical since it is so easy for us all to become lost in the everyday business of government. Finally, a home for innovation can serve to provide legitimacy and political cover to innovators across your administration.

How

1. Declare Innovation a Priority.

Having the Mayor spend some political capital to publicly state that she will establish an innovation team is a great way to build momentum. This can take the form of an official order or a more casual “launch” in a speech. The key is to calibrate your use of the mayor’s megaphone and authority so that you

have clear sanction but without triggering otherwise avoidable resistance. In Boston, for example, a very public but “lightweight” approach was used to launch New Urban Mechanics. The Mayor used his State of the City address in 2010 to first start talking about this new office, even while it had already started working. The advantage with this approach as opposed to a more “official” launch via an executive order or similar method is that it allows the innovation team to start working right away, whereas a more formal approach could immediately set up opposition from other departments who think they “own” innovation.

2. Start Small. A good innovation team can start out small (two people) and then, hopefully, grow over time. Two people with complementary skills and knowledge can work wonders. For example, in the case of the City of Philadelphia the team initially consisted of seasoned city employee (15 years), Jeff Friedman, with a relative neophyte, Story Bellows (former Executive Director of the Mayor’s Institute on City Design). Jeff brought deep systemic knowledge about Philadelphia local government to

The purpose of an innovation team is to facilitate innovation, not to control it.

the table and Story brought her skills and contacts from the design world with her. Many effective innovation teams have one person who is internally focused (works with folks inside the administration) and one who focuses on collaboration with external partners (see Imperative Six).

One important part of building your innovation team is to avoid starting the work from scratch. It is far more effective to start your innovation team based on work that is already happening and by empowering the people that are already doing it. Starting from scratch takes a long time and is highly susceptible to political sabotage by others. It's also important not to overbuild your team too early. A smaller initial team allows you to build based on the needs you discover, rather than hiring based on a set of assumptions about what you need that gets proven wrong as your team starts learning from its projects and experiments.

3. Give the team latitude. A key element in the success of the innovation team will be the degree to which they have latitude or flexibility in the projects they work on. This requires some restraint on the part of the city's senior leadership. For example, there is often an impulse among city leadership to create an oversight committee for the innovation team. While having such a committee could assure that the innovation team is connected to other city departments, it can also act to slow the team's work down and undermine its ability to act creatively and opportunistically. Rather, the city executive or chief of staff and the innovation team should have a general agreement-in-principle (preferably not even written down) about priorities and the (minimum possible) guardrails so that the innovation team can go forth and experiment. This understanding will evolve over time, so it will be important for the innovation team and the mayor or chief of staff to be in regular contact.

Getting Started

- **Find two people.** The core of your team can come from inside or outside the administration, and cities have been successful both ways. Good candidates locally could emerge as you tell your innovation story. If you want to search nationally, call an innovation director you respect and ask for suggestions.
- **Create (or find) a physical space for your innovation team.** The space that we create for our innovation team can set the tone for their work, so it should embody their work ethic and their areas of work. Help them make the space creative, open and encouraging of collaboration. If you're pressed for space, take an existing space and put something like IdeaPaint on the walls. In the case of Boston, we put the team right next to the Mayor's Office. This helped to send a strong signal that innovation was a high-level priority. It also helped to encourage collaboration since the team was easy to find. In other cities, the innovation team has been located in other spaces such as in the budget department. NOT being close to the executive can also be a good thing since it may make city employees feel more comfortable in approaching the innovation team. Every space can have upsides and downsides, so give it some thought and then go with your instincts.
- **Encourage the innovation team to hold office hours,** in which anyone can drop in to pitch ideas to the team. These sessions should be about getting to know people, learning about what they are proposing, and helping to cultivate their thinking around innovation and innovation projects.

Profile: Boston's Urban Mechanic sends a signal: The Mayor's Office of New Urban Mechanics

In 2010, Thomas M. Menino won his fifth term as Mayor of Boston. For many observers, they assumed that this meant a steady hand in Boston's continued growth. However, in 15 years in office, you learn more than a little about what works and what doesn't in local government. One thing that Mayor Menino was clear about was that local government can certainly innovate and it often does. But at the same time, these innovations tend to be sporadic and the rate at which they are produced can be unreliable.

This issue as well as a general intent to spend some of the political capital he had accrued over the past many years led Mayor Menino, in consultation with his new chief of staff, Mitch Weiss, to create an innovation lab patterned after the Mayor's nuts-and-bolts approach to running the city, which earned him the nickname, the Urban Mechanic. This group, the Mayor's Office of New Urban Mechanics (MONUM),

would drive the Mayor's innovation agenda forward and would thus serve as his clarion call that unless we are actively innovating we are standing still and thus, falling behind.

MONUM would serve as the rallying point for innovation across the organization, but it would by no means be the only source of innovation in Boston local government. Groups such as the Department of Innovation and Technology, under the leadership of nationally recognized Chief Information Officer, Bill Oates, and the Department of Public Works, under Commissioner Joanne Massaro, would also be key anchors in moving the Mayor's Innovation agenda forward.

Imperative 5: Support Strategic Risk-Taking

What

Failure is generally a scary proposition for any government official, but innovation requires the possibility of failure. Therefore it is important for the office to allow for -- and even expect -- some failure. If all the projects the office runs are successful, it probably isn't thinking big enough or taking enough risk.

Risk is only a problem when we don't have a way of managing risk. In local government, bureaucracy often functions to manage risk by slowing things down and removing any scary elements of a project. But the scary parts are often the parts where progress is most needed.

A successful Breakthrough Innovation Practice helps to pave the way for strategic risk-taking and provide cover when some innovative projects inevitably fail. It creates a container within which acceptable risks (e.g., people might not like these changes to a webpage) can be taken without being blown out of proportion and provides reassurance that bad risks will be avoided (e.g., we won't promise anything we can't deliver), and helps to stage projects and experiments (see Imperative Eight) so that failure comes in smaller, more digestible doses that require less damage control. And it communicates about risk and failure in ways that affirm innovators and embolden others to step up and try new things.

Why

The challenges we face in America's cities are deep. The only way that we can make any real headway on them is to put them squarely in our cross-hairs and dig in. We won't get where we need to be if we can't act boldly.

Taking on the big problems of our times takes a sophisticated approach to managing the risk of innovation. In local government, this risk is usually the risk of what happens in the case of failure and how that affects the reputations of the mayor or of government workers. The way to deal with this is not to systematically weed out anything even remotely risky, but rather to give these government employees cover, to manage the communications around failed experiments for them, and to publicly validate the efforts of those willing to take strategic risks.

How

1. Encourage your innovators in the early going.

A question that we often hear from our colleagues in other cities is "how do we get our organization to be innovative?" The answer to the question is

often "you don't." What generally works better is to make it safe for the potential innovators that are already there (and I guarantee you they are there) to step forward to do this work. Trying to change everyone's minds at once is hard, to say the least. But if you stay the course with telling your innovation story repeatedly to anyone who will listen, reach out to people and keep your office hours in your welcoming space, people will respond and will seek you out. Reward these early adopters with your support, encouragement and validation.

Risk is only a problem when we don't have a way of managing risk.

2. Help your innovators communicate around risk. As with any good experiment (more on this later), you and your innovation partners should have credible hypotheses about how your projects might fail and what the consequences of failure might be. You should also be able to find ways to hedge against those risks (e.g., I can mitigate the risk that this project will offend a given community by doing user research in that community), and often those hedges can add value to the project. When you need to communicate about a project's risks, always try to pair that with the hedge and the benefits

that make the risk worthwhile. If a project fails, the innovation team should own the communications around that failure on behalf of the innovators who are putting their names on the line.

3. Celebrate innovators and their innovations (and their failures). Celebrating successes and failures is key to creating a culture in which people are willing to take risks and try new things. Having an innovator share the limelight with your mayor, for example, by including a quote from them in a press story, can send a signal that innovation is rewarded and important. Having the mayor talk about people whose failures added value to the city's work can be awkward if done clumsily but really valuable when done well. This is primarily about two things: putting the failure in the context of the outcome the innovator was working towards; and de-coupling the failure of the experiment from the ability of the individual by affirming that they did things, if not perfectly, at least to a high standard.

Getting Started

- Create a support group for your innovators.**

People that are doing creative work inside of bureaucracies face lots of uphill challenges. Bringing these people together periodically can be both cathartic, as they share their battle stories, but also energizing, as they learn from each other and start developing ideas together

(which will inevitably happen). There are many ways to find these people. Start with people you know and then ask each of them to invite one other person they know to the meeting. You can also broadcast out your invitation across your organization. Do whatever works.

- Ask the White House to recognize your innovators.** It may sound crazy, but you can actually work with the WhiteHouse Office of Science and Technology to have your innovators recognized as a Champion of Change: <http://www.whitehouse.gov/champions> (email brian_j_forde@ostp.eop.gov for details)
- Create a front-door for innovators (both internal and external to local gov) and their ideas.** Make it easy for people to find you. Give away your email address freely and invite people to visit you. Being approachable is critical to emboldening your innovators.

Imperative 6: Collaborate to Innovate

What

Resources are constrained for every city, but potential partners usually abound. Local entrepreneurs, businesses, universities, nonprofits, philanthropic organizations, and residents offer a combination of ideas, skills, time, passion, and financial support to develop new, breakthrough projects.

Profile: "The Department of Failure"

Dealing with failure and risk are important aspects in creating an innovation practice. In 2010, two Harvard Kennedy School students, Jayant Kairam and Matt Joyce, approached the then-fledgling Mayor's Office of New Urban Mechanics with an offer to do a research project on innovation in local government. In collaboration with MONUM the students focused their work on the inhibitors and enablers of innovation in local government. The research project took the form of a questionnaire that was sent out to a wide range of city employees which asked questions such as: "Are there distinct barriers to innovation in your department?" and "Can you describe an example of a failed innovation and why you feel it failed?" The research paper makes for fascinating reading and it highlighted many observations about what works and what doesn't in Boston's local government. One such observation was that the fear of failure on the part of senior managers, and how it would impact their reputations across the organization and the minds of the Mayor, the press and the public, was a key stumbling block for innovation. Another key observation was that local government doesn't really have a means to manage the risk of innovation. As such, when a Mayor or other senior executive exhorts her staff to "go out and innovate" it really is an unfair ask.

This observation had a profound influence on the development of the Mayor's Office of New Urban Mechanics. MONUM's role as a "Risk Aggregator," offloading the risk of projects from other departments onto its own shoulders, has been key to how it operates and adds value.

As such, MONUM serves, in effect, as "The Department of Failure" (or, The Department of Yes) and enables our local colleagues to try out new ideas and to take risks.

Engaging in these sorts of collaborative partnerships, of course, can often be very difficult. These different sectors use different language to describe the same thing and often have related but different goals from each other. Finding the intersection of your goals as local government officials and those of your partners is the crux of the issue. This is in fact a much larger problem when tackling big urban systemic challenges. The need for “translators” is everywhere in cities.

However, this need can actually be an opportunity for local government. Since government is here to stay and as such must have the long-term view in mind, we can form lasting relationships with these sectors and thus serve as key translators. The key is for government to develop the culture and skills that make this possible. Innovation teams can be a critical part of that process.

Why

In order to be able to take on the truly hard problems we face, we can no longer afford to think about government and government services as being inherently inferior to, or isolated from, solutions from other sectors. We need to raise the bar in the quality of the “products” we deliver to residents and in the level of engagement and empathy we demonstrate with communities. This will require us to step outside of how we have traditionally worked. This is the role that collaborations play for local government. They enable us to explore new territory and push the limits of what we can do.

How

1. Keep it simple. Before you have institutional partnerships, you’ll have individual partnerships. These are the people who will help you prove your worth and help you learn, by doing, what if any more formalized relationships (e.g., a partnership with a university) might have value. Before New Urban Mechanics had a relationship with Engagement Lab at Emerson College, Chris Osgood and I had a relationship with a professor there named Eric Gordon.

Generally speaking, it’s usually better to start with small collaborative projects before crafting big partnerships. You’re almost always better off formalizing what you’re already doing than building structure first. Avoid contracts or Memoranda of Understanding wherever possible -- the benefits of the added clarity are usually offset by reduced

flexibility. Keep things low-stakes to give yourselves maximum room to run.

2. Consider public-private structures to support clearly defined goals. When there are clear systemic needs to support innovation that the city is not well-positioned to host, a semi-public entity might be appropriate. Several cities have experimented with this, particularly around civic technology and open data. Smart Chicago Collaborative, for example (profiled below), has partnered with local foundations and city hall to facilitate the production of quality civic technology tools and help close the digital divide. In Louisville, Mayor Fischer’s Civic Innovation Chief created a public-private repository for air quality data that private citizens were collecting on their own but that the administration was not, at least in the short term, in a position to house.

3. Be prepared to translate both linguistically and in terms of strategic interests. Often, when approaching potential partners, you may not be using the same language and concepts that they are. As the bridge-builder, it’s your job to speak their language and to tie the work to their core values. Across these different worlds, framing your message in terms of how it affects people’s everyday lives can also be a useful way to break potential collaborators (and sometimes even yourself) out of a more parochial mindset. Additionally, key stakeholders won’t always see the alignment of interests as well as you or your core partners will. It’s your job to both remind people of their shared interests and to help craft the work in ways that address partners’ pain points.

Getting Started

- **Read up on examples of public-private structures supporting innovation.** Here are two of many such examples:
 - Smart Chicago Collaborative (www.smartchicagocollaborative.org/; [http://datasmart.ash.harvard.edu/news/article/the-smart-chicago-collaborative-a-new-model-for-civic-innovation-in-cities-\)](http://datasmart.ash.harvard.edu/news/article/the-smart-chicago-collaborative-a-new-model-for-civic-innovation-in-cities-)
 - Louisville’s public-private repository for environmental data: <http://www.livingcities.org/blog/?id=234>
- **Chart your relationships.** Chances are that you have really strong and extensive relationships aligned with some of your priorities (e.g., the local civic hacker scene), but

fewer or weaker relationships in other areas (e.g., community groups). Knowing where you want to grow your cadre of innovation partners will help you spot opportunities and people.

- **Make cold calls.** It may sound basic, but if you know there's an institution with which you want to have a relationship but you don't know anyone, cold call someone there who looks promising and see if they bite.

Profile: Smart Chicago Collaborative



Chicago, like all big American cities, faces a range of systemic challenges. In the mid-2000's a number of community and inter-institutional conversations were convened to explore in particular the digital divide and its effect across the city. One of the resulting elements of these conversations was a report entitled, "The City that NetWorks: Transforming Society and Economy Through Digital Excellence". The report highlighted a number of recommendations including one which described the creation of a non-profit (called in the report the Partnership for a Digital Chicago).

This recommendation was later implemented as the Smart Chicago Collaborative. This civic innovation organization is dedicated to growing both the digital skills of Chicagoans as well as encouraging the spread of Chicago's digital infrastructure (public computing centers, a city-wide wifi network, etc.). In practice, the Collaborative works closely with the partners who established it (the City of Chicago, the MacArthur Foundation and the Chicago Community Trust) to develop programs that reach out across the city especially to disadvantaged communities. These programs are designed to complement investments and programs that the City of Chicago is rolling out (such as the establishment of a community fiber network) so that Smart Chicago can focus on increasing adoption of digital technologies by city residents, while the city focuses on the larger infrastructure issues.

This innovative model is actively being explored by other cities where there is a strong community-oriented philanthropy or similar organization that is working collaboratively with the local government on issues of digital divide and digital adoption.

Stage III: Build Innovation into the Day-to-Day

Much of the work involved in building an effective Breakthrough Innovation practice is about dealing with the day-to-day aspects of the job. It's about negotiating with city staffers that are reluctant to try new things, trying to find funds to develop projects, dealing with procurement issues, etc. Developing a set of competencies or skills in local government that can drive an innovation agenda forward day-by-day is key.

Imperative 7: Go Agile

What

Your concept for what a project is will be challenged throughout its implementation. Being forceful in the face of a challenge, however, isn't always a strength. If early feedback encourages a different direction, seriously consider shifting the focus.

An agile approach is an iterative methodology for experimenting, learning and adapting so that projects stay focused on delivering value with and for residents and that bad hypotheses get weeded out at low cost. This approach is a vital part of managing the risks of innovation because it allows us to break big, scary bets down into small, testable bites.

In the software world, there are many strains of the agile methodology as applied to building software products. For example, in the Lean Startup methodology as pioneered by Eric Ries, a great deal of focus is directed at creating the Minimum Viable Product (MVP) which, just as it sounds is the minimal set of features of your new product that you can use to test its acceptance by users. The fundamental process in Lean Startup is called the "Build-Measure-Learn" loop. By watching how people use (or don't use) the MVP you can rapidly determine whether to stay the course and keep building your program, OR, if no one is using it and don't seem likely to, you pivot and change course. This approach of testing MVP's with residents is a process of iteratively running experiments. This concept is adaptable far beyond the world of software development.

Why

Being agile is about doing your best to design and deliver programs, services and policy changes that produce the outcomes you want (e.g., public services people actually use and like). This is somewhat

contradictory to the usual way that local government operates, in which we build things based on some perceived need on the part of our residents, but we don't actually test those assumptions. This is a huge issue for government. In many ways this traditional approach to developing services is the cause or enabler of bureaucratic and institutional lethargy. We need to move to an approach that focuses on value.

Further, building the capacity to experiment is key to being able to develop programs, products and services that our residents actually want to use. It also creates a powerful foundation for creating a successful innovation practice in local government.

Being agile is also a vital part of managing the risks of breakthrough innovation. If you're going to test fundamentally new approaches to solving problems or delivering services, you're not going to know what works right away. Taking an iterative, experiment-driven approach allows you to test your ideas, identify potential issues and unintended consequences, and adjust. Ultimately, what you learn from these experiments can also produce whole new breakthroughs. Often, the signal is in the noise.

Your concept for what a project is will be challenged throughout its implementation. Being forceful in the face of a challenge, however, isn't always a strength.

How

1. Learn how other organizations create a culture of agile innovation. There is much that we in local government can learn from other sectors as to how they enable agile innovation. Some organizations, such as Lean Impact, are already working to apply this approach to the social sector, and organizations in the civic tech space, such as Code for America and OpenPlans, are also working to help bring agile approaches into the world of government and civic innovation. Finding ways to learn from existing agile practices and then adapting them to the needs of local government can be a rich source of innovation.

2. Find a good experimental partner. Developing experiments can be challenging to local government. Neither our staffing model nor our procurement policies are set up for this work. Thus, having a good partner that can help us think about, develop and deploy experiments that are intended to test the assumptions of potential new services or programs. These partners could be anyone with experience in doing iterative experimentation or user testing, so they could be user experience designers, product managers, social scientists, computer scientists, etc.

3. Pay attention to your results. The experiments in which you are testing MVPs should be all about learning about how your residents (and employees) respond to your test. This could apply to new services, programs and products you are considering rolling out more generally. In Boston, for example, we ran a series of experiments based on using mobile phone-based services. Smartphone apps such as Citizens Connect worked very well in experiments, while a text message-based system for reporting requests for service (e.g., pothole repairs) were pretty poorly used. We ended up discontinuing the text-based system, even though it seemed like a good idea at first.

Taking an agile, experimental approach to the development of products and programs requires you to develop a particular discipline. You will need to clearly articulate what you want to test, how you're going to measure it and how you actually expect to use the results of the experiment. As the example above illustrates, it also takes discipline to actually accept the results of your experiments, even if you don't like them.

Getting Started

- **Do some learning:** Here are a few resources to help you get started.
 - *The Lean Startup*, By Eric Ries
 - Talk to the good folks at 18F (<https://18f.gsa.gov/>; reach out to Hilary.Hartley@gsa.gov)
 - Send at least one of your innovation team members to a startup school for a deep immersion in the culture of agile and iterative experimentation. Startup schools include: General Assembly (<https://generalassembly.ly>); Startup Institute (<http://www.startupinstitute.com/>); and Startup School (<http://startupschool.org/>)
- **Experiment with an MVP.** Pick one service (a website, mobile app, etc) that you know needs overhauling. Do some user research (see Imperative Three) on how people do or don't like the service and then devise a number of experiments to take the service in a new direction or to add creative new features based on the user research findings.
- **Get a helper.** Find a university researcher or a designer that is willing to help you with running some experiments.

Imperative 8: Be Prolific

What

The innovation team should run a large number of projects in order to sustain a robust pipeline. It is unknown which innovations will be successful

Public Policy Experiments: Harvard's Ryan Buell weighs in

Experimentation in local government doesn't have to be hard. "Government actually experiments all the time but doesn't realize it," says Ryan Buell, Assistant Professor at Harvard Business School. "They put up a change to a webpage, and if people don't like it, they take it down." According to Buell, an important part of encouraging a culture of experimentation in local government is just to lift that fact up, legitimize it, and help people to do it better.

Things appear to get a little less clear around experimenting with public policy as opposed to more tangible products or services. Legislation, for example, can be hard to change, and procedures that affect the public can be subject to drawn-out and politically charged review processes. Policy changes can also have unintended consequences and carry important social equity considerations.

However, public policy experiments can be done appropriately and well, sometimes with a light, if any, lift. For example, policy change can create its own, "natural" experiments that, if analyzed properly, can reveal real insights. "If, for example, a policy change kicks in that only applies to people over a certain age," says

Buell, "you'll have a natural comparison group – people who are similar in other ways, except they are just under that age. By comparing people who are just under the cutoff, to those who are just over, you'll have a good chance of isolating the effect of the policy." Or sometimes, things just happen that become "natural experiments." For example, you want to see how your city handles snow removal under certain circumstances and then those circumstances transpire in parts of the city.

Experiments can take many different forms, and determining the appropriate form can be a challenge. One key, Buell says, is that "you have a hypothesis – a theory about the way things work, and you think critically about what you might measure before and after the change to test that hypothesis." Sometimes this involves more academically rigorous experiments, but often those aren't necessary. Another key, says Buell, is to be transparent about the fact that you're trying to learn, and to go out and talk to people. Many times, plans are based on assumptions about what people want, or the knowledge of what might work well internally. By getting out of the office, and engaging with residents, local officials can often arrive at a much better approach, much more quickly.

and which ones won't, so the team always needs to be building plenty of partnerships and pursuing many pilots. Having many irons in the fire ensures that regardless of whether projects succeed or fail, there are always new innovations in development. In some ways this may happen naturally, given the "stretched-thin" nature of local government teams, but a little extra nudge here and there can really help keep things moving. It is also important to think strategically about the range of projects we are engaged in from the perspective of a portfolio so that we can manage risk and reward effectively.

Why

The currency of an innovation team is wins, especially early on. Some innovation teams have taken the approach of starting slowly to get the lay of the land before taking on projects.

While this would seem to make good sense, it can also put your team in the difficult position of not producing quickly enough. You want results your mayor can announce. Starting quickly and taking on many projects might seem counterintuitive, but in addition to being politically expedient it also gives you the opportunity to learn about where you can be successful and add value. Learning by doing is often the key for making innovation successful. A steady stream of "announceables" also can buy us cover for longer term and/or riskier projects that may be harder to take on at first. So making sure that the "pipeline" is (very) full is important.

How

1. Grow your capacity to produce. Local government almost never has the personnel to take on all

The currency of an innovation team is wins, especially in the early going.

the creative projects that it would like to. We need to find alternate ways to grow this capacity. Fellowships for graduate students or mid-career professional looking to take on more impactful work can add greatly to this capacity.

2. Create a "Culture of Yes." One of the aspects of local government that often stops innovative ideas in their tracks is the standard "no" these projects get early on from supervisors. By simply starting

with a "yes" we can both give people a greater sense that innovation is possible in local government as well as fill our pipeline of projects. This starts with the innovation team, but the goal is that this ethos spreads across the broader organization. As you get to know the innovators and their ideas, you may have to end up saying "no" if the idea and team just aren't in alignment with the innovation team, but starting with "yes" enables you to figure this out.

3. Think in terms of a pipeline. A full pipeline of projects allows us to take a portfolio approach to the work in which we can think about the relative risks and rewards of projects and assess them in terms of the resources that projects are taking up relative to their potential pay-offs. This in turn will allow us to generate a healthy mix of projects operating at different velocities which will generate the steady stream of press-worthy announceables for our elected official. Chart your projects. If it helps, draw an actual pipeline on your wall or whiteboard and put your projects on it with sticky notes corresponding to where in the pipeline they are. There is always a tension here between quantity and quality. However, if you are taking an agile approach, you will find that most projects won't need to have a

high level of polish until they are quite advanced, and only a subset of projects will reach that stage.

4. Start thinking differently about hiring practices. The standard mistake we make in local government is to focus on hiring requirements and job functions from a mechanical perspective (e.g., maintain system X; a minimum of 5 years of Y). This approach, while reasonable, will skew how applicants think about government jobs. Consider information technology, for example. If we describe jobs in terms of the number of years of experience in various skills, we are essentially setting ourselves up to compete with the likes of Google and Amazon. That won't work. Instead, we need to remember two things. One, government is a social enterprise. Two, the Millennial Generation is increasingly motivated by opportunities for social impact. So if you want to attract that generation to government, you need to start by articulating the social mission for which you are recruiting. In Boston, we've been doing this for a few years now and it's been an effective approach to bringing talent into the organization, including Mayor's Chiefs of Staff, Chief Finance Officers and the entire New Urban Mechanics team.

Getting Started

- Create one or two fellowship programs.** Fellowships can not only add greatly to our capacity to innovate, but they are often easier to "hire" via grants or as contractors, etc. Fellowships can bring in graduate students or more advanced professionals (though we've found that it helps to separate the two programs as the participants have different needs and skill sets).

Here are some examples/models:

- New Urban Mechanics Fellowship (www.newurbanmechanics.org/fellowship-application/ or email Patricia Boyle-McKenna at patricia.boyle-mckenna@boston.gov)
 - Urban Fellows Program (<http://www.nyc.gov/html/dcas/html/work/urbanfellows.shtml>)
 - FuseCorps (<http://fusecorps.org/>)
 - Presidential Innovation Fellows (<http://www.whitehouse.gov/innovationfellows>)
- **Chart Your pipeline.** You and your team should keep a visual representation of the projects you have going and where they are in your pipeline (e.g., concept, first experiment, ready for prime time). This will both help you track how you and your colleagues are spending your time, but also help you keep an eye on which projects and people might require what level of your attention and support when.
 - **Emphasize social impact when hiring.** Start with a current open job description that you are struggling to get the sort of applicants you are looking for and re-write the job description around the social impact that this position will have. For example, if it is an IT position, rewrite it so that it emphasizes how some specific web apps or services, such as applying for a business permit, will either dissuade or encourage a new business from opening. By making the impact concrete in these positions, a greater range of applicants, especially those drawn to social entrepreneurship, will be drawn to applying.

Profile: New Urban Mechanics and the Pipeline of Innovation

The Mayor's Office of New Urban Mechanics (MONUM) in Boston has often described itself as a "Risk Aggregator." This refers to the idea that a key aspect of the function of MONUM is to create a means to manage the risk of innovation in local government. In turn, key to this this concept is the ability for MONUM to work to compare the risk and reward of its various projects. The effectiveness of this approach is dependent on the sheer range of projects being undertaken at any given point in time.

At any given point in time, MONUM can have up to 50 different projects on the go, each operating at different velocities. MONUM's model of operation is highly partner-driven, which means that its various projects will ultimately progress at the rate at which the partner can move. This could mean that any particular project could be slowed down and thus impact MONUM's ability to deliver results, but since the innovation pipeline is very full, MONUM is still able to deliver a more or less consistent stream of new experimental products to Boston's residents.

Imperative 9: Help Grow the Field — Within and Outside Your City

What

Beyond the individual project, learning in a Breakthrough Innovation practice has two key elements: Diffusing learnings from your projects and experiments across and beyond your early adopters, and sharing what you've done and what you've learned with other cities so that you all can steal from one another shamelessly.

This kind of learning and diffusion generally involves documenting what you've learned from your projects, communicating about it in ways various audiences can pick up on, and engaging in local and national networks to share and take in new learnings around the country.

Why

The work of creating an entrepreneurial approach to government innovation is really a movement. It is a movement dedicated to changing the way that local government thinks and acts and delivers value to its residents. The primary way that this movement will grow and spread is by each of us engaging in a process of learning and sharing with others who are attempting to start or deepen their own innovation practices. In addition, sharing learnings and ideas across cities can help grow your pipeline and help local stakeholders beyond your "early adopters" learn from and take interest in the work.

How

1. Document key learnings from your projects.

This doesn't have to be burdensome. As you go, make sure you're writing down your hunches and what you learn about them following your experiments. At some critical juncture -- when a project wraps up or when it enters a new phase, write three bullets for yourself and your team about what you learned. Keep these someplace where the whole team can record and access them.

2. Roll up and share your learnings. Schedule a time for your Innovation Team and anyone else you want to invite to periodically review the status and results of your product and extract higher-level learnings about how your team and your administration can continue grow its ability to innovate. Share those with anyone who will entertain them. Use them to update your innovation story.

3. Find Partners to help you learn and share.

Having partners to help structure and push our experiments forward will bring discipline to how we learn from the experiments and then share those results with the field. Currently, this is one of the most underdeveloped aspects of the civic innovation realm. The learning and sharing currently being published is mostly being done by academics who, while they can help capture and share work happening in the field, have little direct experience of this work and in many cases end up (accidentally) not getting things quite right in how they describe the projects and approaches being developed by practitioners. We in the field owe it to ourselves and to our field to share what we know.

Getting Started

- **Read about Design Action Research in Government**, which is about creating a culture of learning via collaboration between government and universities: <http://engagementgamelab.org/pdfs/darg.pdf>
- **Reach out to other innovation offices** around the world and steal their secrets:
 - Mayor's Office of New Urban Mechanics, Boston: Email me at nigel.jacob@boston.gov
 - Laboratorio Para La Ciudad, Mexico City: emali Gabriella Gomez-Mont at Laboratorio@labplc.mx
 - MindLab, Denmark: Email Christian Bason christianbason@gmail.com
- Read some field-scans of public sector innovation:
 - Nesta / Bloomberg i-teams Report (www.theiteams.org/)
 - Desis Public Innovation Lab (<http://nyc.pubcollab.org/public-innovation-places/>)
 - Open Plans Field Scan of Civic Technology, with Living Cities (<http://www.livingcities.org/knowledge/media/?id=94>)

Profile: The Story behind Design Action Research in Government (DARG)

In 2006, when Chris Osgood and I first joined the Mayor's Office in the City of Boston, there was very little interaction between universities and local government. At the time, local government related to the 80+ colleges and universities in the Boston area as little more than land-owners. However, as we began our work, we realized that the institutions of higher learning were an untapped resources in terms of talent and R&D that could drive innovation in how Boston City Hall delivered services to its residents.

The standard way in which local government interacts with universities is at the end of a three stage pipeline of policy / services development:

1. Problem Definition / Creation of Service
2. Deployment of Service
3. Study the impact of the service

We realized that it would be more useful have the university researchers involved from the beginning at the point in which the service or policy was being developed. This would allow for the new service to be conceived of as an experiment in which there was a hypothesis that was being tested and appropriate data generated that could be used as part of the analysis. Further, the entire interaction between government and the university could be treated as an iterative "Learning Loop" in which each experiment built upon the learning in the prior one.

This model of working was developed and "codified" via a set of experiments developed in conjunction with Professor Eric Gordon and what is now the Engagement Lab at Emerson College. Our work with Gordon was centered on using online games to augment offline community engagement. We have since been employing DARG in all our interactions with universities as a framework for working together.

Where We Go from Here

This guide represents a particular perspective on innovation and how to embed it in the workings of local government. It is, furthermore, a first iteration of a living document. We will be refining this and building on it as the City Accelerator's first cohort on embedding innovation progresses. A critical input into that refinement will be feedback you all give us as you read this document and try to put it to use. Please tell us how it goes!

In addition to this being a first iteration, there's a lot that we still need to learn about how to do this work. For example:

- The Accelerator cities in the first cohort are experimenting with ways to get this innovation work truly, deeply embedded in city hall, so that everyone innovates effectively and appropriately. The kinds of changes to policies, procedures, etc. required for that remain to be tried
- We're still figuring out how to get people to readily share knowledge across vast city administrations, and to translate that knowledge into new action, and
- We're still figuring out all the different elements of ensuring that local government's practice of innovation is tuned and targeted in ways that effectively engage and benefit communities, especially low-income communities.

These are things we'll be exploring over the next 18 months and we're looking forward to engaging with the broader field as we go. We'll also be iterating and building on the ideas in this guide over that time. An essential ingredient to the refinement and expansion of these ideas is your feedback. Like any experimental product or service, this guide is only useful if it helps you build your city's practice of innovation and experiment productively with elements of Breakthrough Innovation. So let us know how it goes!

Acknowledgments

This guide is very much based on my experiences working at Boston City Hall over the past seven years.

As I hope is clear from the guide itself, innovating in local government is entirely a group activity. As such, I have been incredibly privileged to work with an amazing group of local government officials. These people have been my collaborators, partners and mentors over the years and I owe them everything. Their contributions to the work of MONUM, and by extension the ideas articulated in this guide, are so deeply infused throughout these pages that it is impossible to isolate where their thinking ends and mine begins.

I'd like to call out a few here. Mayor Thomas M. Menino has been a personal inspiration to me and totally influenced the way I think about government and politics. Former Chief of Staff to Mayor Menino, Mitch Weiss, is the real inventor of the idea behind the Mayor's Office of New Urban Mechanics. He's a brilliant guy with a big heart and I am eternally grateful for having been asked by him to help lead MONUM. Bill Oates was the brand new Chief Information Officer at Boston City Hall when I arrived there in 2006. I learned immensely from his people-oriented approach to management and leadership. Boston City Hall and the residents of Boston were incredibly lucky to have him as long as we did. My co-chair in the Mayor's Office of New Urban Mechanics, Chris Osgood, is an amazing person. He is my personal role-model at City Hall and is the consummate public entrepreneur. His quiet, powerful intellect, wide-ranging creativity and ability to get things done in the service of city residents are breathtaking to behold.

I'd also like to take a moment to acknowledge a few colleagues at Living Cities. Tamir Novotny is a more recent colleague of mine at Living Cities (because I'm new there). Without Tamir's incredible multi-tasking skills, deep attention to detail and keen insight into how change happens in local government, this guide would not have been possible. Thanks, man. I'd also like to acknowledge Ben Hecht, President and CEO of Living Cities, and Arthur Burris, Living Cities' Director of Public Sector Innovation, for giving me the opportunity, the time and the running room to get these ideas out on paper.

Finally, I'd like to send a shoutout to all the current and former New Urban Mechanics team members (both salaried and volunteer!). Your passion for your work and willingness to do whatever it takes to get the job done has been and remains an inspiration to me. Thanks so much to you all!

About Nigel Jacob

Nigel Jacob is Urban Technologist-in-Residence at Living Cities, where he brings his experience from the vanguard of the municipal innovation movement in leading, advising and supporting work around the Breakthrough Innovation, cross-sector collaboration and civic data and technology. Nigel leads the City Accelerator's first cohort on embedding innovation in local government, providing coaching and technical assistance to three cities working to make innovation course-of-business. With an extensive background in collaborative, citizen-facing technology projects, Nigel Jacob co-founded the Office of New Urban Mechanics - a civic innovation incubator within Boston's City Hall, and serves as a mayoral advisor on emerging technologies. In both of these roles, Nigel works to develop new models of innovation for cities in the 21st century. Prior to joining the City of Boston in 2006, Nigel worked for and launched a series of technology start-ups in the Boston area. Nigel is also a fellow at the Center for the Advancement of Public Action at Bennington College. Nigel has received a number of awards for his groundbreaking work in Boston, including being named a Public Official of the year in 2011 by Governing Magazine and the Tribeca Disruptive Innovation award for 2012.