**Verticals 8 & 9: Increasing Awareness, Adoption, and Adaptation of Innovation**

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| **Revised Outline:**  General D1 intro text for website about the Toolkit (*distinct* from content intro)  General D1 - elevator pitch  General D2 - rationale/ benefits – how to argue for innovation  General D3 (use cases) – the innovation adoption curve (how innovation diffuses)  General D4 – Specific levers for deploying innovation, identified By Tom Kalil  Each have abbreviated versions that address briefly:  D1 pitch and D2 rationale  D3 – when to use  D4 – a brief case example (with add’l links)  D5 – brief mention of cautions or potential pitfalls  D6 – brief how to guidance (possibly just link to add’l resources for further detail)  D7 –add’l resource links specific to that area and a POC, if available  General D5 – discussion of challenges for innovation  General D6 – guidance broadly applicable to levers discussed, including strategies for winning support  General D7 – additional links and resources broadly related to innovation in gov’t  General D8 – legislative resources  General D9 – next or promising practices – questions to consider |

**Pull quotes:**

"Innovation in government is not alien to the American tradition. It is the American tradition." Aneesh Chopra, former US CTO [Chopra, A., *Innovative State,* p. 26, Grove/Atlantic, Inc, 2016].

"And so the right questions to ask, when we're talking about fostering innovation in any human institution, are: How can we foster a culture of learning and discovery?" Eric Ries, author of *The Lean Startup* [Ries, E., The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses, p. 59, Crown Business Publishing, 2011]

"A talent for speaking differently, rather than for arguing well, is the chief instrument of cultural change." Richard Rorty, philosopher

“[Everyday Americans] deserve a way of thinking that empowers rather than divides, that confronts challenges rather than creating them, that solicits all types of expertise rather than espousing tired approaches. […] Open innovation is about handshakes and handoffs: the handshakes between powerful, enabling entities that allow for the handoffs to those with the hope, ambition, inspiration, and ideas to make our country better, in every conceivable way." Aneesh Chopra, former US CTO [Chopra, A., *Innovative State,* p. 88, Grove/Atlantic, Inc, 2016].

"Innovations arise when people are given a problem to solve instead of being told to implement a known solution." - “[Innovation is a Contract Sport](https://ourpublicservice.org/publications/viewcontentdetails.php?id=918),” Partnership for Public Service, February 6, 2016.

"Innovation comes from every level of the chain of command – if you’re good enough at selling it and can navigate bureaucracies, you’ll succeed. And if not, you need to be resilient and try something else.” Dr. Camron Gorguinpour, former director of the Air Force’s Office of Transformational Innovation [Camron Gorguinpour, phone interview with Policy Design Lab, December 22, 2016.]

## **Deliverable 1: Site description**

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| **What is the [Innovation Toolkit/Innovation Hub]?**    The [[Toolkit/Hub]] aims to provide practical guidance and resources on the "hows" that underline innovation. The goal is to share knowledge on a set of approaches that agencies have begun to use to solve problems and to improve the core processes of government. Innovation is celebrated and promoted here, with the hopes of inspiring a collective culture of experimentation that seeks new and more effective ways of working.    There is no singular understanding of innovation across the Federal government. Concepts featured here span multiple, overlapping communities, tasked with tackling different problems through different skillsets, time horizons, and understanding of what innovation means. Federal employees can find guidance on how to deploy particular innovative approaches. Specific content areas can help you to incorporate effective methods and frameworks to use in the pursuit of specific goals -- whether that's improving digital services for citizens to make the government more efficient and responsive [crosslink to USDS case study] or launching a “Grand Challenge” to make solar as cheap as coal by the end of the decade [crosslink to SunShot case study]. Case studies are featured to help illustrate how colleagues have deployed innovative approaches to achieve greater impact, with key insights featured to lower the learning curve for your own adaptation of these practices.    The [[Toolkit/Hub]] is intended as more than just a static repository of knowledge resources. No single person or agency "owns" expertise in innovative methods; context matters, and innovation is not one size fits all. The goal is to solicit your experience and insights.    **What are the goals of the Toolkit/Hub?**     * Increase awareness at all levels of the Federal government of innovative approaches with track records of success in the public sector * Strengthen knowledge and evidence base about how and under what circumstances to use these approaches * Promote the effective adoption of these approaches when appropriate * Encourage the identification, documentation, and sharing of promising practices through communities of practice (within agencies, across agencies, across levels of government, between government, private, and other sectors) * Increase the chances that knowledge and use of these effective approaches persists across Administrations, especially given that they are non-partisan.   [Kalil, T., “Innovation Toolkit Overview”, Unpublished memo, April 11, 2016] |

## **Deliverable 1: Elevator pitch summary**

**Using modern tools and approaches to solving intractable problems.**

**Doing more with less.**

**Creating a government that is open, transparent, responsive, data-driven, evidence-based, and citizen-centered.**

**Prioritizing agility, openness, and data-driven decision making as default ways of working.**

**Building environments that encourage learning and experimentation.**

**Introduction:**

"Innovation refers to an idea, embodied in a technology, product, or process, which is new and creates value. To be impactful, innovations must also be scalable, not merely one-off novelties."

[“[A Strategy for American Innovation](https://www.whitehouse.gov/sites/default/files/strategy_for_american_innovation_october_2015.pdf),” Economic Council and Office of Science and Technology Policy, October 2015.]

Innovation in the Federal government involves encouraging a problem-solving mindset organization-wide, and empowering individuals to leverage modern using new tools and experiment with new approaches to achieve greater mission impact. This toolkit is intended as a resource for innovators seeking to argue effectively to introduce, test, and scale promising and programs in their agencies. The methods described here can be valuable tools for tackling agencies’ biggest challenges and opportunities. But the tools in the Toolkit are just that: tools. They are not self-executing. Tactical strategies are required to effectively encourage adoption, adaptation, and deployment. This toolkit is for change seekers at all levels of government: Program staff and senior leaders seeking new technologies, methods, approaches, or best practices to improve their agency’s effectiveness.

**Why**

Motivated innovators across Federal agencies have pioneered approaches that deliver better results at lower cost for the American people. The widespread adoption of these tools can significantly improve government effectiveness. [“[A Strategy for American Innovation](https://www.whitehouse.gov/sites/default/files/strategy_for_american_innovation_october_2015.pdf),” Economic Council and Office of Science and Technology Policy, October 2015.] The goal now is to lessen the gap between the successful implementation of a new approach piloted within one Federal agency and the broader acceptance, dissemination, and implementation of that approach throughout the Federal government. Doing so requires that agencies foster supportive environments and cultural norms that encourage experimentation, discovery, and learning.

This Innovation Toolkit delineates a number of recommendations for building innovation within your government agency: **[crosslink to each content area as relevant]**

* Establish an innovation office or space to share ideas and support early innovators
* Designate a chief innovation officer
* Crowdsource innovative ideas from within and without (empower career staff and citizen solvers)
* Recruit talent (through tour of duty hiring, or building innovation into hiring criteria)
* Set audacious goals in a participatory framework (Grand Challenges, convening collaborations)
* Modularize your internal operations and make them more agile
* Introduce evidenced-based, multi-tiered approaches to programmatic design

Deploy entrepreneurial and design methodologies like human-centered design and Lean Startup for more effective problem-solving

* Provide training and skill building for management and staff.

**How**

Encouraging the use of innovative methods is, at its core, a question of how to create an enabling environment that not only permits but encourages innovation. The goal is to share and learn the skills and capabilities that can help us do our work more effectively. To encourage the dissemination and adoption of these effective, modern tools, different tactical strategies can be used. Broadly, they fall into four categories:

* **Support change seekers institutionally**
* **Create enabling environments**
* **Incentivize and reward experimentation**
* **Foster an empowering culture of learning**

These tactics are not mutually exclusive – rather, they can reinforce and build on one another. An effective innovation strategy will incorporate several over these elements as appropriate for the situation.

## **Deliverable 2: Summary of underlying rationales / empirical research**

**Assessing the Value of Public Sector Innovation: Cost savings, risk reduction, efficiency gains**

This is not about innovation for innovation’s sake; the goal is to help build a better government. Effective new tools can save time, money, resources, improve efficiency, reduce risk, and increase employee satisfaction. [Macrae, J., personal communication with Policy Design Lab, January 12, 2017]

It is sometimes a challenge to frame and communicate the value of new ways of working in a manner appropriate for the public sector. Silicon Valley’s celebration of failure as a vital aspect to innovation can seem at odds with environments where there is an incumbent responsibility to root out failing programs and save taxpayer dollars. Running inexpensive quick experiments designed to produce learning before scaling is analogously the same, but a more effective argument. [Marcuse, J., phone interview with Policy Design Lab, December 21, 2016].

In assessing the value of innovative efforts, it is important to also to articulate the costs of inaction or the status quo, says Josh Marcuse, executive director of the Defense Innovation Board: “Action is not the only risk; inaction has risk. We rarely articulate the risk of *not* taking an action. This cognitive bias is the leading cause of the inertia in our system.” [Marcuse, J., personal communication with Policy Design Lab, January 18, 2017]. Agencies should consider the costs of undertaking and learning from new efforts against the costs of continuing on their present course.

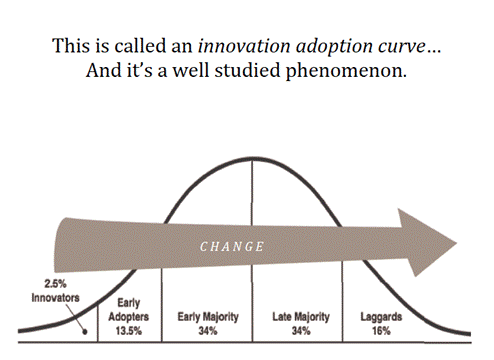
Radical transformation is not a prerequisite for effective change. Starting small and building upon incremental improvements can also lead to significant progress:

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| **The (actual) moonshot: Transformative progress through incremental learning**  “The analogy I like to use is the moon landing,” says Chris Gerdes, U.S. DOT Chief Innovation Officer. “That was huge. In fact, it’s become shorthand notation for everything innovative: ‘I’m doing a moon shot.’ “  “But if you look at the distance between any two [NASA] missions, it‘s pretty small. What they do is pick one point on the horizon, but keep moving forward and learning. And so as opposed to trying to say, “How do I get the Moon?” What you need to say is, “What’s the next Mercury mission? What is Gemini?”  A real moon shot is not the mythic understanding of “the moon shot.” For the original moon landing, transformative accomplishment came from incremental, additive progress. At every stage, more resources were added in. They built an ever-growing team; it was never ‘Something I’m doing,’ it was ‘Something that we’re doing,” Gerdes observes.  President Kennedy had publicly set a clear mission and time frame for putting a man on the moon, but at that point, NASA was only a couple missions into Mercury. “The temptation then, is to say, ‘The President says we need to get to the moon! What do we need to build to go to the moon?’ [NASA] had the discipline to say, “It’s too early to build something to go to the moon. We need to build an entire series of missions that have no hope of getting to the Moon, but will make us smart. “  […]There’s a fear of failure” that holds would-be innovators back, Gerdes argues. But if the purpose of the prototype is to learn, it’s only failure if learning fails to occur.  [Gerdes, C., phone interview with Policy Design Lab, July 1, 2016.] |

## Deliverable 3: How Innovation Spreads

#### **How Innovative Ideas Spread and Scale: Summary of Literature**

Deploying innovation is about understanding how people take up new ideas and how change spreads across organizational systems. Sociologists, economists, businesses and communications specialists have long studied how innovations diffuse and spread throughout systems and society (see [Rogers,1962](https://www.researchgate.net/profile/Anja_Christinck/publication/225616414_Farmers_and_researchers_How_can_collaborative_advantages_be_created_in_participatory_research_and_technology_development/links/00b4953a92931a6fae000000.pdf#page=37); [Christensen, 1997](https://www.amazon.com/Innovators-Dilemma-Revolutionary-Change-Business/dp/0062060244) for seminal examples). In each case, adoption is driven by the conditions of the system or organization, the willingness to change, and the institutional scaffolding that helps push it forward.



[[Image Source](http://www.slideshare.net/edsonm/how-change-happens/) – image licensed under creative commons]

According to Everett Rogers in *Diffusion of Innovation*, the transfer of ideas follows a distinct pattern: First, champions create awareness of innovation. This knowledge is then channeled to and through other individuals within a system. Supported by evidence of its effectiveness or “transformative capacity”, agents in the system are then persuaded by its success to adopt, and it is implemented into their work. As adoption increases, a multiplier effects kick in, and the network grows, eventually reaching a “tipping point,” where widespread adoption is reached. Institutional change can be incremental or dramatic [Rogers, E., *Diffusion of Innovations*, Free Press (Simon & Schuster), 2010.]

The innovation adoption curve that Rogers first described is now a well-studied phenomenon. Former HHS CTO Bryan Sivak explains:  "Within an organization, the propensity of people to change and adapt lies on a bell curve. The people on the left will not want to change. The folks all the way on right end will always try to change and adapt but may not be successful. Likewise, the people under the curve, excluding the extremes, may eventually want change but not know how to actualize that desire." [Sivak, B., personal communication with Policy Design Lab, January 17, 2017.]

Using the innovation adoption curve framework, resources can be invested where they have maximum impact for driving change across the landscape. Change seekers can tailor their strategies for moving beyond the early stages -- in which a relatively small number of enthusiastic early adopters evangelize about a novel approach -- to the later stage, in which a majority of potential users appreciate the value of the approach and begin to take its use as given. “The big, hard thing is getting early adopters to commit,” observes Michael Edson, former director of web and new media strategy at the Smithsonian. Edson, M., phone interview with Policy Design Lab, July 5, 2016.] Edson adds, “When the early majority sees what the early adopters are doing, they are much more likely to jump. And once you’ve got early adopters and the early majority, you got half of all the players committed and lasting change is more possible.” [Edson, M., phone interview with Policy Design Lab, July 5, 2016] Late adopters are somewhat more wary, but glad to step in once a reliable proof-of-concept exists. The early majority seeks the comfort of numbers and initial precedent. The late majority will resist until the widespread diffusion of an innovation has been achieved.

For more on how change spreads: [How Change Happens,](http://www.slideshare.net/edsonm/how-change-happens/) PowerPoint from Michael Edson

**Innovative methods often need to be “localized” to fit the agency conditions**

The conditions that encourage the circulation, adoption, adaptation, and generation of innovation vary by organizational context. It’s important to avoid the "replication trap,” advises Bob Sutton, Stanford professor co-author of *Scaling Up Excellence* [Sutton, B., “[Catholic or Buddhist Approach](http://ecorner.stanford.edu/videos/3276/Catholic-or-Buddhist-Approach)”, eCorner Stanford, February 12, 2014.] Sutton uses a [provocative analogy](http://ecorner.stanford.edu/videos/3276/Catholic-or-Buddhist-Approach) to compare the scaling pathways of high-fidelity reproduction of methods and interpreted versions that retain a general shared vision. Sutton and his co-author, Huggy Rao, argue that the choice between replicating best practices versus adapting and modifying them to fit local conditions is the key choice that determines success or failure. [Griswold, A., “[Two Stanford Professors Have A Fascinating Theory Of Why Businesses Succeed](http://www.businessinsider.com/scaling-up-excellence-robert-sutton-huggy-rao-2014-1)” , Business Insider, February 4, 2014.] New practices – no matter their merits – fail to bring value if their implementation does not reflect the agency-specific context. It’s important to emphasize the framework of a given approach as opposed to dictating specifics and superimposing a pre-formed solution on top of an existing issue.

## **Deliverable 4: Specific levers for driving change within the Federal government**

Regardless of new processes’ merits, tactical strategies are required to effectively encourage adoption, adaptation, and deployment within an agency. There are a range of 'levers' available to innovators at various levels in government, including:

* **Support change seekers institutionally**
* **Create enabling environments**
* **Incentivize and reward experimentation**
* **Foster an empowering culture of learning**

**Support change seekers institutionally**

* Become or garner high-level champion and advocates
* Use policy guidance to empower
* Create different types of infrastructure that make new approaches easy
* Link the broader performance management agenda with specific innovative tools

**Create enabling environments**

* Create of new organizations, like centers of excellence
* Charter an innovation council to build capacity and consensus of broader adoption of particular approaches
* Use accelerators to pilot new ideas

**Incentivize and reward experimentation**

* Formally recognize innovators through awards and acknowledgement
* Create incentives for adoption
* Link broad goals to individual performance plans

**Foster a culture of learning**

* Create high quality, updated, online resources that help Federal employees
* Use experiential learning in professional development and training
* Foster communities of practice

#### **Support change seekers institutionally**

##### **Become or garner high-level champions and advocates**

Senior leadership need to clearly and consistently message that use of new innovative approaches is not allowed but actively encouraged, and that staff will not be penalized for intelligent risk-taking.

Champions at different levels can also play this role of encouraging and supporting experimentation. [Kalil, T., in-person interview with Policy Design Lab, Washington DC, December 6, 2016.]

**Why:**

In dozens of interviews spanning every approach in the Toolkit, innovators repeatedly emphasized the critical importance of high-level leadership support. **"**The job of leaders is to figure out how to surface, encourage and foster the staff’s talent to solve the problems that need to be solved**.** Most of the time, the answers are within the room itself. It’s just about **how you create the environment to share or think in different ways,**" shares Jim Macrae of the [Health Resources and Services Administration](https://www.hrsa.gov/index.html). [Sekhar, M., “[Operationalizing Innovation: A Q&A with Jim Macrae](https://www.hhs.gov/idealab/2015/11/25/operationalizing-innovation-qa-jim-macrae/)”, HHS Idea Lab, November 25, 2015.]

**How:** Beyond firm and visible expressions of support, leaders can demonstrate that they value and support new efforts. Reorganizing structures and reallocating funding are larger, long-term changes that take effort to achieve. More immediately, leaders can use access and facetime as signals that reinforce the sincerity of their commitment. “When leaders at any level, whether a frontline supervisor or agency head, put into place mechanisms for benchmarking progress on a project, ask questions about, or ask t meet the people working on it – they signal that innovative work is valued and create psychological safety for other aspiring innovators,” explains Josh Marcuse, executive director of the Defense Innovation Board. [Marcuse, J., phone interview with Policy Design Lab, December 21, 2016].

**Caution:** It’s not enough to express support for innovative work; support must be demonstrated through visible actions that continually reinforce that support. It’s important that leaders assess and understand their own commitment to new methods and initiatives, and make sure that their appetite for change rhetoric does not exceed their appetite for actual change implementation.

**Case snapshot:**

Innovation often requires a strong internal champion who understands the value of the efforts, is willing to put their name and position behind them, allocates appropriate resources, and uses a very hands-off management style. “Bill Corr, former Deputy Secretary, was a perfect exemplar of these qualities at the Department of Health and Human Services,” shares Bryan Sivak, former HHS CTO. [Sivak, B., personal communication with Policy Design Lab, January 17, 2017.] Sivak adds, “He was always there for advice, for help connecting with various parts of the bureaucracy (political or career), available to show up at an event, give remarks and praise, and just generally be a good leader. But he always let us execute, which is the main reason we were successful.” [Sivak, B., personal communication with Policy Design Lab, January 19, 2017.]

**Learn more**

* Harvard Business Review on [leadership](https://hbr.org/topic/leadership) styles
* TED Talks on [leadership](https://www.ted.com/topics/leadership)

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##### **Use policy guidance to empower**

Offering policy guidance to officials and staff at various levels within agencies is a key support for encouraging the greater adoption of innovative tools.

**Why:** Communicating how to apply the tool to a given setting, and what mechanisms are available to help support adoption, has been a key ingredient to deployment. Delegation and decentralization of authority can facilitate the use of new methods by lowering the difficulty for deployment. [Kalil, T., in-person interview with Policy Design Lab, Washington DC, December 6, 2016.]

**Caution:** Approach the development of policy guidance with the understanding that it may be an iterative process. Initial efforts to develop policy guidance may require further refinement to make sure the guidance is explicitly clear and actionable. Before firm guidance is issued, additional experimentation may be needed to answer questions or address potential obstacles. Agencies should remain open to revisiting and revising policy guidance as practices evolve. [Nelson, C., personal communication with Policy Design Lab, January 19, 2017.]

**How (with illustrative case snapshot):** [Nelson, C., phone interview with Policy Design Lab, December 20, 2016; Nelson, C., personal communication with Policy Design Lab, January 19, 2017.]

Leaders within agencies are not always aware of the specific legislative authorities at their disposal.

To increase awareness of use and overcome barriers to entry, policy guides may target three levels:

**Level 1:** Communicating policy guidance across the government.

An official with cross-governmental authority may refer back to the statutory language to provide clarity on legislation. For example, the Office of Management and Budget (OMB) regularly issues memos clarifying how statutory language can be interpreted as well as Frequently Asked Question (FAQ) documents explaining in more detail new or existing statutes. [Nelson, C., personal communication with Policy Design Lab, January 19, 2017.]

**Level 2:** Agency specific guidance.

Legislation may have different implications within each individual agency. Each agency can create its own dedicated policy guide expressing how and when to use relevant authorities, and at what levels within the agency they are relevant. At this level, it is important that agency heads understand how they can delegate down to lower levels to encourage greater adoption.

**Level 3:** Delegate and offer further agency specific guidance down to the program level.

Offering policy guidance and delegating authority down to the program level allows for further adoption and application. A department like HHS has multiple agencies, each with individual programs. For example, the CDC, Headstart, and NIH all sit under the HHS umbrella, each with unique goals and objectives. The recent 21st Century Cures act specifically calls on NIH to leverage prizes and challenges to accelerate biomedical research, which will require further specialization in policy and practice at NIH to apply this tool to their subject matter and institutional context.

**Example**: To institutionalize and encourage the adoption of prizes and challenges at HHS, former Secretary Sebelius delegated authority to operating and staff division heads, providing them the ability to run their own prizes and challenges without Secretary approval each time.

**Read more:** [Federal Register publication of HHS’ delegation of rule authority](https://www.gpo.gov/fdsys/pkg/FR-2011-05-04/pdf/2011-10847.pdf)

**Learn more:** For more examples on how to provide policy guidance, check out the [Sample Agency Policies and Capacity Building Resources](https://www.challenge.gov/toolkit/resources/) on Prizes and Challenges Toolkit.

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##### **Create different types of infrastructure that make new approaches easy**

Make it easy to adopt a new approach by lowering the time, cost, and complexity to use it.

**Why:** Often, the pursuit of new approaches is discouraged because existing systems and processes make initiating change difficult. Creating and sharing fully developed solutions allow agencies to transform their problem into one that has already been solved.

**How:**  Create different types of infrastructure and both internal and external “marketplaces.”

**Caution:** Ensure there is a plan to scale the underlying infrastructure/marketplace/process before it is created. While these innovative approaches to procurement are innovative at the outset, without scale it becomes a simple novelty. By setting the expectation that the approach will scale after it is tested, teams will run into less resistance if/when the approach takes off. [McMahon, A., personal communication with Policy Design Lab, January 3, 2017.]

**Case snapshots: Agile BPA and Challenge.gov**

[McMahon, A., personal communication with Policy Design Lab, January 3, 2017.]

**18F and Agile BPA**

In January 2015, 18F [announced](https://18f.gsa.gov/2015/01/08/creating-a-federal-marketplace-for-agile-delivery-services/) the creation of the Agile Blanket Purchase Agreement (BPA), a contract vehicle featuring agile delivery vendors who can support the IT acquisition needs of buyers across the Federal government. Working with 18F, agencies can access vendors who have publicly documented capabilities in using agile practices. (Open to existing vendors on Schedule 70, participating vendors in the BPA were required to demonstrate their agile capabilities by submitting a working prototype based on a public dataset and also documenting their work in a publicly available git repository.)

Technical experts that understand agile software development performed the vendor selection. Because the BPA can be used by any agency working with 18F, this eliminated the need for this expertise in each procurement that 18F supported for agency partners. The preselected vendors met a threshold of capabilities. [McMahon, A., personal communication with Policy Design Lab, January 3, 2017.]

Because the procurements reflect agile development, task orders feature shorter-time frames, smaller contract amounts, and user-centered design principles. [Source] While only 18F may issue task orders against the BPA, any Federal agency may obtain services through 18F. Agencies wishing to use the Agile BPA should contact [inquiries18f@gsa.gov](mailto:inquiries18f@gsa.gov) with information about their problem or project.

**Learn more:**

* [Information for agency partners](https://pages.18f.gov/ads-bpa/buyers/)
* [Ordering Guide for the Agile Delivery Services BPA](https://pages.18f.gov/ads-bpa/ordering-guide/)

**Read more**

* [Creating a federal marketplace for agile delivery services](https://18f.gsa.gov/2015/01/08/creating-a-federal-marketplace-for-agile-delivery-services/)

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**GSA and Challenge.gov**

[McMahon, A., personal communication with Policy Design Lab, January 3, 2017; Nelson, C., personal communication with Policy Design Lab, January 19, 2017.]

The [Strategy for American Innovation](http://www.whitehouse.gov/the_press_office/president-obama-lays-out-strategy-for-american-innovation/), first announced by the White House in September 2009, urged agencies to increase their ability to promote innovation with tools such as prizes and challenges. Within six months, the Office of Management and Budget issued a[memorandum](http://www.whitehouse.gov/omb/assets/memoranda_2010/m10-11.pdf) providing a policy and legal framework to guide agencies in using prizes to stimulate innovation to advance their core missions. In order to support the use of challenge prizes, the General Services Administration (GSA) developed [Challenge.gov](http://www.challenge.gov) to provide a one-stop shop for agencies to announce and administer prize competitions that met all legal and policy requirements. This has allowed agencies to focus on their problem and solutions rather than the bureaucratic hurdles that need to be cleared to run prize competitions.

In the [America COMPETES Reauthorization Act of 2010,](https://www.gpo.gov/fdsys/pkg/PLAW-111publ358/content-detail.html) Congress also called on GSA to “develop a contract vehicle to provide agencies relevant products and services, including technical assistance in structuring and conducting prize competitions to take maximum benefit of the marketplace as they identify and pursue prize competitions to further the policy objectives of the Federal Government.” In response, GSA launched Sub-Schedule 541 4G, “Challenges and Competitions Services” in July 2011. Contractors on the schedule offer agencies options for technical assistance, prize platforms, and access to communities of individuals and teams interested in entering prize competitions. GSA continues to assist agencies in taking advantage of the available services and to inform private-sector vendors and agencies about the schedule and its benefits. Building on the effort by GSA to engage vendors, several other agencies have also developed agency-wide prize and challenge service contract vehicles and BPAs to streamline access to vendors to support the design and implementation of prize competitions and challenges. [Nelson, C., personal communication with Policy Design Lab, January 19, 2017.]

Learn More: [Challenge.gov](http://www.challenge.gov)

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##### ***Link broader performance management agenda with specific innovative tools***

Agencies can embed specific innovative approaches within their broader Annual Performance Plans and Annual Performance Reports to signal high-level support for these methods.

**Why:** Agencies measure, analyze, and communicate performance information to identify successful practices to spread. [“[Delivering on Ihe Accountable Government Initiative and Implementing the GPRA Modernization Act of 2010](https://www.whitehouse.gov/sites/default/files/omb/memoranda/2011/m11-17.pdf).” OMB M-11-17. April 14 2011.] Innovative methods are one of many priorities that compete for time and attention. Organizations measure what they value, and adopting goals that relate to specific innovative tools is one way agency leadership can strongly signal their support and commitment for using these methods. Linking specific innovative methods to the broader performance management agenda – like running an incentive prize or completing a certain number of innovative acquisitions – also helps to align incentives to support the use of modern, non-traditional approaches. [Kalil, T., in-person interview with Policy Design Lab, Washington DC, December 6, 2016.]

**How:** Agencies annually document agency-wide performance plans and performance reports. With the approval of agency leadership, new methods or goals can be embedded within these documents as recommendations or requirements. In the first year, a baseline for the new innovative activity can be established and projections created for the following fiscal year. Agency-level progress towards the goal is then assessed in the subsequent annual performance report. To truly shift incentives, goals enumerated in agency plans should be reflected downwards, all the way to front-line employees’ performance plans. The identification of agency-wide goals in support of innovation can also benefit from collaborative, employee-centered dialogue. [Naggar, M., phone interview with Policy Design Lab, December 29, 2016.]

**Cautions**: Communicate the intended outcomes clearly when adding new baseline metrics to the Annual Performance Plan; the goal should be to create a supportive environment that explicitly encourages experimenting with new ways of working. Unrealistically ambitious goals can be discouraging, so quantified goals may need to start small and grow in ambition over time as an agency gains more expertise in working with a certain method.

**Case snapshot:** **HHS**

In February 2015, HHS added two new goals to its FY2016 Annual Performance Plan: 1) “Add ‘Increase the number of innovation solutions developed across the Department’ and 2) “Add ‘Increase the number of opportunities for the public to co-create solutions through open innovation.” [HHS, “[Annual Performance Plan, Fiscal Year 2016](https://www.hhs.gov/about/budget/performance/changes-in-performance-measures/index.html)”]

Further defining “innovative acquisition” as part of the metrics for these goals was a challenging process, notes Mark Naggar; it can be difficult to define something new that hasn’t been measured before. The unknowns in novel approaches can make it difficult to achieve consensus on how to define a new concept, how to measure and capture it, and how to incorporate those measurements into accountability plans. Outside senior support that can lend “air cover” and help to shepherd a new concept through the approval process was essential, he notes. By inserting explicit goals to track innovative activities into the Department’s performance plan, it establishes firm goal posts for the organization to move towards. This helps ensure that innovation is actualized, not just talked about. [Naggar, M., phone interview with Policy Design Lab, January 11, 2017.]

**Learn more:**

* “[Institutionalizing Hiring Excellence to Achieve Mission Outcomes](https://www.whitehouse.gov/sites/default/files/omb/memoranda/2017/m-17-03.pdf)." OMB M-17-03. Nov 1 2016
* “[Strengthening Employee Engagement and Organizational Performance.](https://www.whitehouse.gov/sites/default/files/omb/memoranda/2015/m-15-04.pdf)” OMB, OPM, WHPPO. M-15-04. Dec 23 2014.
* [GPRA Modernization Act of 2010](https://www.congress.gov/111/plaws/publ352/PLAW-111publ352.pdf)
* “[Delivering an Efficient, Effective, and Accountable Government and Implementation of the GPRA Modernization Act of 2010](https://www.whitehouse.gov/sites/default/files/omb/memoranda/2011/m11-31.pdf),” OMB, M-11-31. Aug 17 2011.
* [" Delivering on the Accountable Government Initiative and Implementing the GPRA Modernization Act of 2010"](https://www.whitehouse.gov/sites/default/files/omb/memoranda/2011/m11-17.pdf), OMB M-11-17. April 14 2011.
* OMB guidance to agencies: [Refer to OMB Circular A-11, Part 2](https://www.whitehouse.gov/omb/circulars_a11_current_year_a11_toc), Preparation and Submission of Strategic Plans, Annual Performance Plans, and Annual Program Performance Reports

**Read more**: [www.performance.gov](http://www.performance.gov)

Shea, R. and Hennemuth, E., “[Leading the Way to Improved Government Performance](https://www.td.org/Publications/Magazines/The-Public-Manager/Archives/2016/02/Leading-the-Way-to-Improved-Government-Performance)”, Association for Talent Development, February 10, 2016.

#### **Create enabling environments**

##### **Create new organizations and centers of excellence**

New units or centers of excellence can develop expertise in the detailed implementation of innovative methods, then coach up and collaborate to share that expertise.

**Why:** Existing bureaucratic structures have enormous operational responsibilities, and sometimes lack the bandwidth and capacity to work through the challenges of executing new methods for the first time. [Camron Gorguinpour, phone interview with Policy Design Lab, December 22, 2016.] Centers of excellence provide a space for agencies to cultivate a dedicated resource with expertise in the implementation of new innovative methods: “Coming up with ideas isn't the problem, it's the hard work of selling the idea and getting way into the weeds with the people who actually have to execute the idea,” notes Dr. Camron Gorguinpour, Director of the Air Force’s [Office of Transformational Innovation](http://www.transform.af.mil/Home.aspx). [Gorguinpour, C., phone interview with Policy Design Lab, December 22, 2016]

**How:** CoEs act as an internal resource to educate and collaborate with agencies through the implementation life cycle of new innovative methods. By providing end-to-end support, centers of excellence can enable agencies to rapidly experiment with new methods before standing up their own capabilities. [“[About CoECI](https://www.nasa.gov/offices/coeci/about)”, Center of Excellence for Collaborative Innovation, NASA.]

**Caution:** Agencies should consider how to integrate new units within the operations of their organization to ensure the entire organization benefits from a center’s focused expertise.New units should **l**ook broadly and think through how to navigate the interdependence of different actors and functional area, especially in complicated bureaucracies. [Camron Gorguinpour, phone interview with Policy Design Lab, December 22, 2016.] Additionally, **“**Think thoroughly about a robust internal communications strategy,” advises Lynn Buquo, Manager of NASA’s [Center of Excellence for Collaborative Innovation](https://www.nasa.gov/offices/COECI/index.html) (CoECI). [Buquo, L., phone interview with Policy Design Lab, December 22, 2016.]

**Case snapshots:**

**Center of Excellence for Collaborative Innovation (CoECI)**

The Center of Excellence for Collaborative Innovation (CoECI) was established by NASA in November of 2011 at the request of the [White House Office of Science and Technology Policy (OSTP)](http://www.whitehouse.gov/administration/eop/ostp) after a [successful pilot program](https://www.nasa.gov/centers/johnson/pdf/478350main_2010-davis-nasaOpenGovInnovationArticlePosting.pdf) to assess if the use of crowdsourcing could accelerate and augment NASA’s research and development efforts. Center manager Lynn Buquo explains that the Center started small, scaling operations as it proved success through quick wins with internal NASA teams along with its collaborations with other agencies. [Buquo, L., phone interview with Policy Design Lab, December 22, 2016.] Through the [NASA Tournament Lab](https://www.nasa.gov/coeci/ntl) (NTL), CoECI collaborates with innovators both across NASA and the Federal government on challenge-based approaches. The NTL offers a variety of open innovation platforms that engage the crowdsourcing community in challenges to create the most innovative, efficient and optimal solutions for specific, real-world challenges. [“[About CoECI](https://www.nasa.gov/offices/coeci/about)”, Center of Excellence for Collaborative Innovation, NASA.]

CoECI acts as an expert resource within NASA and across the Federal sector on crowdsourcing and prize-based challenges (including scope development, cost and schedule management, marketing and awards).

The Center educates and shares best practices while also measuring performance impacts. Data-driven analysis has validated the value of crowdsourced challenges while also developing insights for more effective implementation strategies.

Christofer Nelson of OSTP cites CoECI’s research efforts as being critical to early Federal prize challenge work; the Center helped lay the groundwork for adoption by establishing a knowledge base of why certain aspects did or did not work, which fed into subsequent policymaking processes. Nelson cites CoECI as a key element that enabled the flourishing of the prizes and challenges domain. [Nelson, C., phone interview with Policy Design Lab, December 20, 2016.]

**Contact:** Lynn Buquo, Manager of NASA’s Center of Excellence for Collaborative Innovation, at [lynn.buquo-1@nasa.gov](mailto:lynn.buquo-1@nasa.gov)

**Learn more: “**[NASA Challenges through Open Innovation,”](https://www.nasa.gov/centers/johnson/pdf/478350main_2010-davis-nasaOpenGovInnovationArticlePosting.pdf) This memo provides a glimpse of the early evolution of NASA’s efforts on open innovation, including the pilot efforts that led to the founding of CoECI.

**Read more:**

* About [CoECI.](https://www.nasa.gov/offices/coeci/about/)
* “Houston, We Have a Problem: NASA and Open Innovation,” (Parts A and B), Harvard Business School case studies, N9-414-044 and N9-414-057, Michael Tushman, Hila Lifshitz-Assaf, Kerry Herman, May 5, 2014.

**Air Force Office of Transformational Innovation**

[Gorguinpour, C., phone interview with Policy Design Lab, December 22, 2016; “[Office of Transformational Innovation](http://www.transform.af.mil/)”]

The Office of Transformational Innovation (OTI) was created in June 2014 to identify and execute new acquisitions processes that enable the Air Force to deliver better capabilities more quickly and cost-effectively. Originally envisioned as a single position placed outside of the bureaucratic structure to work with the acquisition community, the explicit goal was to swing for the fences to [bend the cost curve](http://www.transform.af.mil/BTCC.aspx). With positive initial reception to early discussions and experimentation, in two years a staff of two has scaled to become a staff of 11. [Gorguinpour, C., phone interview with Policy Design Lab, December 22, 2016.]

OTI collaborates with internal and external stakeholders to think through and prototype radical changes to acquisition policies and practices. “We’re there to handhold, collaborate, communicate, and work with folks every step of the way,” Camron Gorguinpour explains. [Gorguinpour, C., phone interview with Policy Design Lab, December 22, 2016.] Project ideas are sourced from industry and the workforce, as well as tasks from the Secretary and Chief of Staff. One success has been the creation of an [Airworthiness Accreditation process](http://www.transform.af.mil/Projects/AirworthinessAccreditation.aspx) for non-defense military aircraft. OTI activities are executed with a “fail fast” model, meaning that each activity is given only six months to demonstrate clear potential promise. OTI openly documents and regularly updates a list of failed projects on their website.

OTI functions as an adjunct organization that reports directly to the Air Force’s Assistant Secretary for Acquisitions. OTI’s relationship with other Air Force contracting offices have evolved over time; Gorguinpour explains, “We don’t come in as a hammer over the head about how to do things better; that’s not effective and would not last. Instead, we’re trying to create a fair and open marketplace of ideas. We have to convey to others – with enough detail – *why* trying something new is important.” [Gorguinpour, C., phone interview with Policy Design Lab, December 22, 2016.] In 2016 alone, a dozen programs proactively reached out to OTI for guidance on how to use Other Transaction Authority [crosslink Contracting], with the office offering expert advising on how to evaluate the use the authority within an entire acquisition plan and maximize the potential benefits. [Gorguinpour, C., phone interview with Policy Design Lab, December 22, 2016.]

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##### **Charter an Innovation Council to build capacity and consensus**

Innovation Councils can signal the importance of innovation to leadership and create institutional capacity to create consensus and coordinate the advancement of innovative approaches across a Department.

**Why**: Councils can be particularly relevant structures for Cabinet departments that act as holding companies for numerous different operating divisions. These departments face a particular challenge with encouraging discussion and collaboration across organizational stovepipes. [Kalil, T., in-person interview with Policy Design Lab, Washington DC, December 6, 2016.]

**How:** Councils connect points of contact across the Department that support collaborative innovative activities and help organizations to cooperatively identify and remove systemic barriers to innovation.

**Caution:** Agencies should create a clear purpose for the Council to encourage participation and engagement from members; it’s important that Councils don’t become simply another meeting. [Holman, R., personal communication with Policy Design Lab, January 8, 2017.] Councils must have active leadership regularly driving useful conversations that are worth the time of the attendees. The membership composition of a Council is also important for maximizing its impact: Effective Councils break down standard hierarchies and have both senior leadership as well as staff-level involvement. [Holman, R., personal communication with Policy Design Lab, January 8, 2017.]While membership can differ depending on the purpose of the Council, it is important to seek and support engaged individuals as members who are influential, available and willing to work on propelling innovation initiatives forward. [Koyani, S., personal communication with Policy Design Lab, January 4, 2017.]

**Case snapshot:** HHS’ Innovation Council

Chartered in 2012, the HHS Innovation Council creates and promotes a culture of innovation across HHS and coordinates the Department's innovation efforts. The Council represents interests across the Department in addressing broad community issues and breaking down impediments to innovation The Council serves as the convening body to spark and help institutionalize innovation-enhancing activities across the Department. The Council membership is comprised of HHS's CTO, the Assistant Secretary of Administration, one member from each operating or staff division, and two HHS employees (non-voting). Most Council meetings are also open for anyone in the Department to attend, creating an easy mechanism for leadership to identify interested individuals that may otherwise be hidden towards the bottom of the bureaucracy. [Holman, R., personal communication with Policy Design Lab, January 8, 2017.] In fact, Council meetings have attracted large employee turnout from across the Department and it is notable that over 1,000 HHS employees signed up to track the activities of the HHS Innovation Council via Yammer, a social networking platform. [Koyani, S., personal communication with Policy Design Lab, January 4, 2017.]

The Council has played a central role in advancing HHS’s innovation agenda.  During its first three years of existence, the Council enabled many important advances, including facilitating a change in the social media policy from a confined approach to one that enables uses of social networking platforms by HHS operating divisions; development of new solution-generating pathways, such as prize competitions, that use open innovation practices to solve key challenges; creative uses of hiring authorities, such as Schedule A, to leverage outside expertise; and the creation of innovation programs like the HHS Innovates Awards Program, the HHS Ignite Accelerator, and the HHS Ventures Fund.   [Koyani, S., personal communication with Policy Design Lab, January 4, 2017.]

In 2012, an individual from the HHS New Media team presented a seemingly minor issue that had substantial impact on frontline staff: The legal process for approving new tools to be used was unnecessarily complicated. This presentation, made by a GS-11, directly to the CTO of HHS, the Assistant Secretary for Administration, and others resulted in a Secretary-level memorandum to simplify the processes. This outcome saved a substantial number of hours and thus tax-payer dollars, which ultimately increased the Department’s ability to carry out its mission. [Holman, R., personal communication with Policy Design Lab, January 8, 2017.]

The Council meetings took a brief hiatus in late 2014, and re-launched in 2015. In its re-launching, the Council explored existing solutions to cross-cutting barriers to innovation, such as hiring, and served as advisory body to the innovation efforts led by the HHS CTO. [Koyani, S., personal communication with Policy Design Lab, January 4, 2017.] Its very existence as a body advising the Secretary signaled to all HHS staff the importance of seeking new approaches and outside-the-box ideas. [Holman, R., personal communication with Policy Design Lab, January 8, 2017.]

**Learn more:** The [memo documenting approval of the HHS Innovation Council Charter](https://www.hhs.gov/idealab/wp-content/uploads/2014/05/Approval-of-the-HHS-Innovation-Council-Charter-091812.pdf) demonstrates how a Department can formally create this mechanism.

##### **Use internal innovation accelerators to pilot new ideas**

Internal Innovation Accelerators provide a space for the exploration and testing of new ideas, wrapped in a structure of training, coaching, and support and access to resources.

**Why:** Accelerators provide a trusted platform to grow new solutions in a low-risk, supportive environment. The accelerator model can help agencies identify paths for overcoming systems-level challenges. Accelerators also propagate an agency’s innovation ecosystem by equipping internal innovators with tools to realize new ideas.

**How:** Many variations are possible, and ultimately each accelerator should be customized for the environment within which it is being implemented. Similar to startup accelerators in the private sector, accelerators contain the following common elements:

* Small teams (typically of 3 to 5 people)
* Competitive application
* Some resources are given to selected teams (seed-funding, tools, leadership time, infrastructure resources, etc).
* Fixed time frame (typically 3-6 months)
* Training sprint where the practices of customer-discovery, prototyping, and product testing are introduced and acted on (typically in a 3 to 5 day “boot camp” at the beginning of the program)
* Ongoing coaching and mentorship to reinforce the methodologies (typically through weekly check-ins)
* A culminating event at the end where each team presents their results to senior leadership. Teams describe what they built, what they learned, and pitch for support to take their idea to the next level. (typically this a “Demo Day” or a “Shark Tank”-like event.)

[Ippolito, A., personal communication with Policy Design Lab, January 3, 2017.]

**Caution**: Using guidance from past accelerator models, it is important to take time to adequately plan the accelerator. At the same time, cautions Read Holman, many new accelerator programs are tempted to create at the outset a highly-functioning (and complicated) accelerator program with all of the bells and whistles (teaching, coaching, dinners, webinars, funding, boot camps, shark tanks, tech tools, etc.). [Holman, R., personal communication with Policy Design Lab, January 8, 2017.] He advises that it’s best to start small with just the basics, launch a test pilot for a year, and then refine and scale based on learnings. [Holman, R., personal communication with Policy Design Lab, January 8, 2017.]

**Case Snapshots:** **HHS Ignite Accelerator** and **VA Innovators Network Accelerator supported by the Spark-Seed-Spread Innovation Funding Program**

The [HHS Ignite Accelerator](https://www.hhs.gov/idealab/ignite-accelerator/) is an internal innovation startup program for HHS staff. Begun in July 2013, the Ignite program exists for employees to develop bold ideas to improve how their program, office, or agency works and to infuse entrepreneurial approaches into their work. Selected teams receive design thinking and lean start-up training over a three-day boot camp, followed by coaching and technical guidance over three months to empower teams to define and test creative ideas in meaningful ways.

The VA’s [Spark-Seed-Spread Innovation Funding Program](http://www.innovation.va.gov/innovatorsnetwork/assets/files/SPARKSEEDSPREADFACTSHEET.pdf) “seeks to supply VA employees with supportive pathways for designing and deploying thoughtful solutions to gnarly challenges. It opens up training opportunities for VA employees to learn innovation-related skills like human centered-design; it also provides access to three different types of funding (‘spark’ grants to support proof of concepts, ‘seed’ grants to support pilots of innovations, and ‘spread’ grants to support diffusion of innovations across the VA) and mentorship support to grow and deploy innovation projects.” [“Accelerator Playbook,” Unpublished; draft uploaded for STPI.]

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**Learn more on how to launch your own:**

* Link to Accelerator Playbook [Available Jan/Feb 2017, contact Andrea Ippolito]
* [Ignite Accelerator Syllabus](http://www.hhs.gov/idealab/ignite-syllabus/)

HRSA’s IdeaSpring Guide also provides an excellent overview of recommendations and resources for establishing an agency-level innovation accelerator program. [Upload HRSA blueprint]

**Read more:**

* “[Spurring digital innovation with a page from the Silicon Valley playbook](http://dupress.deloitte.com/dup-us-en/focus/signals-for-strategists/corporate-accelerators-spurring-innovation-startups.html),” John Ream, David Schatsky, Deloitte, February 2016
* “[Innovation Accelerators: Defining Characteristics Among Startup Assistance Organizations](https://www.sba.gov/sites/default/files/rs425-Innovation-Accelerators-Report-FINAL.pdf),” report for Small Business Administration, October 2014
* [Data on hundreds of accelerators around the world, and the companies they've funded](http://seed-db.com/accelerators), from SeedDB
* “[Accelerating growth: Startup accelerator programs in the United States](https://www.brookings.edu/research/accelerating-growth-startup-accelerator-programs-in-the-united-states/),” Ian Hathaway, Brookings, February 2016.

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#### **Incentivize and reward experimentation**

Align incentives to support a culture of learning and discovery.

##### **Formally recognize innovators through awards and acknowledgement**

Recognizing Federal innovators through agency awards, acknowledgement and letters from senior officials, and opportunities to attend Department headquarters or White House events with either agency leadership (or the President or other high-profile individuals) is an essential component to creating a culture that celebrates and sustains innovative work. [Holman, R., personal communication with Policy Design Lab, January 8, 2017.]

**Why:** Recognitions and awards recognize individuals for their efforts in experimenting, risk-taking, and realizing new ideas. They also provide visible, tangible examples of what peers are doing and acknowledge that innovative efforts are already ongoing.[Kalil, T., in-person interview with Policy Design Lab, Washington DC, December 6, 2016.]

**How:** Regulations give agencies flexibility in designing their awards programs, but supervisors should check with their agency awards administrators to determine the types of awards available in their agency. The types of awards agencies may grant Federal employees as individuals or members of a group include:

* Cash
* Honorary recognition,
* Formal recognition, or
* Time off without charge to leave or loss of pay. [“[Performance Management - A Supervisor's Quick Review of Awards](https://www.opm.gov/policy-data-oversight/performance-management/performance-management-cycle/rewarding/supervisors-quick-review-of-awards/)”, U.S. Office of Personnel Management.]

**Caution**: Recognitions need to be genuine articulations of appreciation and not merely a box-checking exercise. Formal recognition is ideally one part of a multi-pronged strategy to create an atmosphere where innovators feel valued and supported within their agency or Department.

**Case snapshots:** [“[Innovates Awards - About](https://www.hhs.gov/idealab/innovates-awards/)”, HHS Idea Lab.; Koyani, S., personal communication with Policy Design Lab, January 4, 2017.]

One example of an agency-level recognition program is the [HHS Innovates Awards](https://www.hhs.gov/idealab/innovates-awards/), which identified and celebrated employee-led innovation at HHS. Each year, HHS employees were encouraged to submit their innovative solutions or nominate work by their colleagues. Top innovative solutions were voted on by HHS staff, and winning innovators were personally recognized by HHS leadership in an awards ceremony. In addition to engaging the community of innovators across the Department, participants also received:

• Recognition for their work across HHS and in the media

• Cash prizes for winning innovators (HHS Employees and Commissioned Corps Officers only)

• Inclusion of HHS Innovates certificate in winning innovators’ employee performance file

Between 2010 and 2015, employees were nominated over 500 staff-driven innovations, with more than 200 employee innovators recognized by the Secretary. [“[Innovates Awards - About](https://www.hhs.gov/idealab/innovates-awards/)”, HHS Idea Lab.] “Recognition is one of the reasons why people actually participate in these things. They want to see their ideas develop. They want to be able to experiment with some of these concepts. But to get recognized by the leadership of the department is also very compelling,” comments former HHS CTO Bryan Sivak. [Feldman, A.,“[Implementing a department-wide innovation strategy: An interview with Bryan Sivak, Chief Technology Officer, U.S. Department of Health & Human Services – Episode #58](http://govinnovator.com/bryan_sivak/)”, GovInnovator Podcast, August 20, 2014.]

**Learn more about** [**HHS Innovates Awards**](https://www.hhs.gov/idealab/innovates-awards/)

**Read more:** OPM provides an [overview of recognition options and guidance](https://www.opm.gov/policy-data-oversight/performance-management/performance-management-cycle/#url=Rewarding)

Additional guidance from OPM:

[Awards Ceremony Suggestions](https://www.opm.gov/policy-data-oversight/performance-management/performance-management-cycle/rewarding/awards-ceremony-suggestions/)

[Ceremony Has its Own Recognition Value](https://www.opm.gov/policy-data-oversight/performance-management/performance-management-cycle/rewarding/ceremony-has-its-own-recognition-value/)

##### **Create incentives for adoption that cascade through the organization**

A thriving culture of innovation can emerge when staff incentives are aligned with transformational outcomes.

**Why:** Redesigning systems to reward creativity, hard work, and novel thinking helps to establish a culture that is open to adopting, adapting, and generating new ways of working. Providing incentives to nurture innovation can help agencies shift their culture.

**How:** It's important to recognize that different constituencies in an agency each have a different context and usually face different incentives. It's often best to segment these into stakeholder groups, analyze them, and design interventions appropriate to each. One possible strategy is to focus on managers. "The supervisor is center of gravity of any organizational strategy," shares Josh Marcuse.  [Marcuse, J., phone interview with Policy Design Lab, December 21, 2016]. “You can't influence the behavior of the workforce without influencing behavior of the management. Many senior leaders try to send signals to their workforce by essentially speaking directly to them, going over the heads of multiple layers of management. This helps, but it’s a more powerful strategy to engage managers and modify their incentives to reward different behaviors at the business unit level.” [Marcuse, J., personal communication with Policy Design Lab, January 19,2017.]

The case snapshot below illustrates how the [Health Resources and Services Administration](https://www.hrsa.gov/index.html) has taken a holistic approach to shifting organizational incentives.

**Caution:**Agency leaders should seek a balance using systems of incentives and disincentives that is appropriate for their particular mission context. Designing incentive systems may require iteration to find the right mix and architecture.

**Case snapshot:** How HRSA holistically creates incentives for innovation:

[Macrae, J., Matoff-Stepp, S., Arsenault, M. and Miller, S., phone interview with Policy Design Lab, December 2, 2016.]

Rewarding people for being innovative, and making the resources (both time and money) available to encourage employees to take risks helps to institutionalize a culture of innovation, according to Jim Macrae, Acting Administrator of HRSA, and members of the HRSA team. In their experiences, HRSA has shifted the culture through multiple, iterative steps that function through feedback loops:

1. **Build internal capacity and offer the right tools to support creativity** – HRSA offers a “leadership training program” where staff participate in a seven month action learning project where they are presented a “big, hairy problem” from the agency and are forced to come together, apply design thinking techniques, and tackle an agency problem. The HRSA idea sprint reinforces the approach, allowing the teams to continue to apply design thinking in real time. “Rather than going to a class, make it experiential” – it focuses on customer discovery then pushing the team right into calling people to directly interact with the problem.
2. **Reinforce the training in practice, and allow time and space for people to problem-solve**:

* After HRSA’s in-house leadership program, participants all reported that they would use these skills gained in the next problem they confronted. “This was the institutionalizing of it,” Jim Macrae notes: “Now, can we do this again and again and this is where the culture can shift. Not every idea has to go through an incubator.” [Macrae, J., Matoff-Stepp, S., Arsenault, M. and Miller, S., phone interview with Policy Design Lab, December 2, 2016.]
* Shifting the daily mindset is the goal. Human centered design provides HRSA staff with foundational tools, but the focus on adoption of the mindset to become a problem-solver is what has helped to institutionalize the innovative culture.
* Enabling communication and dialogue is the glue for innovative collaboration. Using in-person meeting time and space, and technology like Adobe Connect, HRSA encourages and schedules time for people to interact.

1. **Incentivize, reward and recognize**

* Mentors and leadership play an important role recognizing staff for being creative and fulfilling the agency’s goals. This can include a verbal acknowledgement, a pat on the back, or a letter of recognition. Acknowledging individuals and teams for their work in front of other staff reinforces the message that effort toward innovative problem solving is taken seriously within the agency and sets a course toward greater adoption of the desired mindset.
* Rewarding people for their efforts helps establish sustained effort. HRSA began an annual in-house innovation award to reward ideas that come through their organizational innovation ecosystem. Additionally, employee submissions to their idea incubator have increased gradually over time, sparking further recognitions for employees by the HHS Innovate program.
* Create a space for additional discussion and recognition of innovative ideas. HRSA began an innovation symposium as another way to provide recognition to staff. People present and are recognized for their work on developing or conceptualizing various tools.

[Macrae, J., Matoff-Stepp, S., Arsenault, M. and Miller, S., phone interview with Policy Design Lab, December 2, 2016.]

Contact Jim Macrae, [JMacrae@hrsa.gov](mailto:JMacrae@hrsa.gov), or Kevin Zachery,  [KZachery@hrsa.gov](mailto:KZachery@hrsa.gov)

**Learn more:**

* Investigate “Promoting A Culture of Innovation” on how HRSA is empowering employees to achieve its mission [link to shared resource]
* Review “The HRSA IdeaSpring Guide: Recommendations and Resources for Establishing an Agency-Level Innovation Program” [link to shared resource]
* Read “[Operationalizing Innovation: A Q&A with Jim Macrae](https://www.hhs.gov/idealab/2015/11/25/operationalizing-innovation-qa-jim-macrae/)”, November 25, 2015.

##### **Link individual performance plans with agency strategic plans and broad Federal-wide goals**

**One sentence:** Individual performance management plans can be a useful tool for encouraging innovative efforts, but only if agencies take these plans seriously. [Kalil, T., in-person interview with Policy Design Lab, Washington DC, December 6, 2016.]

**Why:** The lack of aligned incentives limits the ability to accomplish innovative activities: “To highlight the importance of innovation, it needs to be part of how people are measured.” [Chenok, D., “[Encouraging and Sustaining Innovation in Government for the New Administration”,](http://businessofgovernment.org/blog/business-government/encouraging-and-sustaining-innovation-government-new-administration) IBM Center for the Business of Government, March 3, 2016.] Additionally, performance plans can be used to encourage collaboration and break down natural organizational silos.

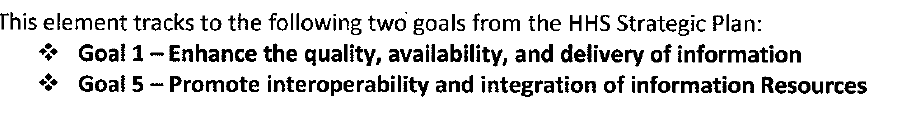
**How:** Building measures into performance management plans can explicitly encourage experimentation with new processes, provided that people are given sufficient guidance and tools to achieve those metrics. By starting with goals set at the highest level of an agency and reflecting downward through each employee’s individual performance management plan, individual plans can be vertically aligned with agency-level strategic goals and sub-goals. [Naggar, M., phone interview with Policy Design Lab, December 29, 2016.]

While vertical alignment of incentives may be effective for ensuring that frontline innovators are rewarded for their work, horizontal alignment across functions should also be considered. To achieve a full alignment of incentives and accountability while also explicitly encouraging collaboration and partnerships across organizational, functional silos, agencies can experiment with helping align the performance plans of personnel who frequently contribute to the lifecycle of similar and/or the exact same requirements and programs. Performance plan alignment, and associated transparency, can be an effective tool for profound culture change if they are appropriately utilized and leveraged across functional areas and throughout an agency. [Naggar, M., phone interview with Policy Design Lab, December 29, 2016.]

**Cautions:** Agencies vary in their use of performance plans. The potency of performance plans as a lever for encouraging innovation depends on how seriously the plan is treated within the agency and by supervisors. Other common performance plan challenges include increased stress, fear of failure, goals as ceilings, and ignoring non-goal areas, according to OPM.[“[Performance Management - Improved Performance Starts with Planning IV](https://www.opm.gov/policy-data-oversight/performance-management/performance-management-cycle/planning/improved-performance-starts-with-planning-iv/)”, Office of Personnel Management.] These can be mitigated with effective management strategies like clear, open communication and realistic goal-setting.

**Case snapshot: Mark Naggar at HHS**Individual performance plans are an opportunity where employees can actively engage and shape the expectations for their work. Each performance management plan has multiple elements associated with an individual’s functional role or responsibilities, like administrative or communication work. Typically, metric-based components are evaluated in conjunction with employee performance, which feeds into their ratings. [Naggar, M., phone interview with Policy Design Lab, January 11, 2017.]

While supervisors often take a lead role in designating what performance plans will measure, Mark Naggar shares that for him, it was useful to actively engage with the process and directly integrate his agency’s strategic goals into his individual performance plan. [Naggar, M., phone interview with Policy Design Lab, December 29, 2016.] For instance, he integrated two goals from HHS’ Strategic Plan to ensure that the expectations for his work were grounded in the broader context of agency priority goals:



[Image source: Mark Naggar’s 2016 performance plan. Used with permission.]

Naggar also suggests that further agencies might be able to derive even greater value from the use of individual performance plans. If the forms were redesigned in a user-centric way and captured digitally, agencies could easily leverage results to assess agency-wide areas for improvement. “360 degree” reviews are a common tool in the private sector that could be incorporated into how agencies use performance management; efforts to holistically align organizational incentives would ideally harmonize the different performance metrics to encourage greater collaboration between cross-functional teams. “You need to know what’s going on around you – what your work is connected to, and how it relates,” comments Naggar. [Naggar, M., phone interview with Policy Design Lab, December 29, 2016.]

**Learn more:**

* [Performance Management - Improved Performance Starts with Planning IV](https://www.opm.gov/policy-data-oversight/performance-management/performance-management-cycle/planning/improved-performance-starts-with-planning-iv/), Office of Personnel Management
* Behn, B., “[Why Measure Performance? Different Purposes Require Different Measures](http://www.coe.int/t/dghl/cooperation/cepej/thematiques/Measuring_perf/Why_measure_performance_stawa_en.pdf),” Public Administration Review, September/October 2003, Vol. 63, No.5.
* “[Why successful performance measurement starts with considering purpose](http://govinnovator.com/bob_behn_2014/): An interview with Bob Behn, Professor, Harvard Kennedy School.” GovInnovator Podcast, July 14, 2014

#### **Foster a culture of learning**

##### **Use experiential learning in professional training and development**

Incorporate experiential learning into professional training and development offerings.

**Why:** Effective learning materials are necessary to transmit knowledge around tactical process questions. Experiential learning, which emphasizes hands-on interaction, can help bridge the gap between theory and practice and better prepare Federal staff to apply new knowledge in their work.

**How:** Experiential learning stresses critical thinking, problem solving and decision-making in real environments. Working alongside practitioners helps transmit tacit knowledge while also ensuring that Federal employees will feel comfortable applying new approaches.

**Caution:** Supervisors and senior leadership need to support the investment of resources and time for experiential learning programs.

**Case snapshot**: **Digital IT Acquisition Professional (DITAP) Training from Office of Federal Procurement Policy and USDS**

Using human-centered design principles and agile methods for software development are very different from traditional waterfall methods for development. The Office of Federal Procurement Policy and USDS created Digital IT Acquisition Professional (DITAP) Training to train contracting professionals on how to develop appropriate acquisition strategies for procuring digital supplies and services.

DITAP is a "whole new concept," argues Joanie Newhart, Associate Administrator of Acquisition Workforce Programs at OMB. [“[Digital IT Acquisition Professional Training (DITAP) with Joanie Newhart](https://www.fai.gov/media_library/items/show/27)”, Federal Acquisition Institute, February 18, 2015.] "We think if we do this, we can change agency cultures.” [“[Digital IT Acquisition Professional Training (DITAP) with Joanie Newhart](https://www.fai.gov/media_library/items/show/27)”, Federal Acquisition Institute, February 18, 2015.] The program was designed through [a challenge](https://www.challenge.gov/challenge/digital-service-contracting-professional-training-and-development-program-challenge-2/) issued on Challenge.gov. Select contracting professionals are offered an intensive six-month blended learning program with both online and in person components. The program consists of online learning through a learning portal, discussion boards, badging, interactive assignment to demonstrate learning, collaborative in-person classroom sessions and a live digital assignment. Training is hands-on, stressing experiential learning over just book knowledge. Participants work alongside acquisitions officials already successfully implementing these new approaches. DITAP also emphasizes an integrated team approach to contracting by involving program officers and legal counsel upfront to decide together how to implement new contracting approaches. When the teams return to their agency, agency leadership is encouraged to put the on teams where they can use their new skills and coaches provide support to work through roadblocks or questions.

“We had three key goals in mind when we designed this program,” writes Traci Walker, Director of Digital Service Procurement at USDS: “1) **Practice**: All Contracting Officers that complete this program will become digital service procurement experts. 2) **Process:**Contracting Officers will be equipped with the knowledge necessary to be imbedded within agency Digital Service teams to serve as a business advisor to the team, its customers, and its stakeholders. 3) **Culture change:**Contracting Officers will gain knowledge on how to influence their partners and allies within their agency and government by leading agency training, workshops, and consultations.” [Walker, T., “[Congratulating our Challenge.gov winners](https://medium.com/the-u-s-digital-service/congratulating-our-challenge-gov-winners-f6ec5deefbd6#.j8mm7m5lc)”, The U.S. Digital Service.]

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Joanie Newhart, Associate Administrator for Acquisition Workforce Programs, OFPP, jnewhart@omb.eop.gov

**Learn more:**

* OFPP, “[Digital IT Acquisition Professional Training (DITAP) with Joanie Newhart](https://www.fai.gov/media_library/items/show/27) ,” *FAI Media Library*, February 2015.
* “[Prepared Remarks of US CAO Anne Rung](https://www.whitehouse.gov/blog/2016/03/22/prepared-remarks-us-cao-anne-rung-acquisition-excellence-2016)” Acquisition Excellence, March 22, 2016.

**Read more:**

* “[Getting smarter about IT acquisition](https://fcw.com/articles/2015/08/27/feature-it-acquisition.aspx),” FCW, August 2015.

##### **Foster Communities of Practice**

Communities of practice (CoPs) are the lifeblood of an innovative ecosystem; they enable peer-to-peer knowledge-sharing and collaboration around effective innovative approaches.

**Why**: Communities of practice are critical to both initiate and develop innovative practices. They can foster a culture of creative, collaborative problem-solving. They create continued engagement and opportunities for people to connect with each other and with the ideas/materials that are being pursued. CoPs can decrease the learning curve, reduce re-work and prevent re-invention, and increase innovation. [Lesser, E.L. and Storck, J., “[Communities of Practice and Organizational Performance](http://www.providersedge.com/docs/km_articles/CoP_and_Organizational_Performance.pdf)”, IBM Systems Journal, 2001.]

**How:** Building and sustaining a community of practice requires a point person to drive and nurture the community. Though CoPs frequently take the form of a digital listserv, regular meetings and multiple touchpoints like events and activities are necessary to build thriving communities. These can be both in person and virtual. Relationships are key to sustain the community. CoPs require an investment of time and space for people to interact and build relational connections. CoPs can be used both to drive knowledge from the top-down to help diffuse a tool, and also to seed at the ground level and allow it to grow and bubble up organically, according to Christofer Nelson, Assistant Director for Open Innovation, OSTP. [Nelson, C., phone interview with Policy Design Lab, December 20, 2016.] Communities need both the grassroots connections and an official policy framework to drive adoption of policy and advance the tool to maturity. Either top-down or bottom-up approaches can emerge first, but a lasting community needs both elements to grow – and participants must be given the chance to share their own learnings with their peers.

**Cautions:** “CoPs are not set-it and forget-it collaborations,” cautions Christofer Nelson. “They require active management through an individual whose job it is to shepherd it along and manage it.” [Nelson, C., phone interview with Policy Design Lab, December 20, 2016.] Communities need to be created both within agencies and across the government for maximal benefit. Innovation is frequently context specific. For example, while someone in the National Park Service (NPS) may get a great new idea from or share lessons learned with a colleague at NASA, it may also be tremendously valuable to connect with other peers situated directly within NPS. [Nelson, C., phone interview with Policy Design Lab, December 20, 2016.]

**Case snapshots : Citizen Science and Crowdsourcing CoP and the Prizes and Challenges CoP**

Prizes and Challenges [crosslink content]

The CoP on Prizes and Challenges emerged from a collaborative OSTP and GSA effort. To develop, it took continued stoking and GSA as backbone to nurture its growth. “We seeded it early on and helped it grow,” elaborates Chris Nelson: “We wanted to create a place that provided professional development to support the growth of the community and to help people build their capacity.” [Nelson, C., phone interview with Policy Design Lab, December 20, 2016.] While the website functioned as a hub, quarterly meetings offered opportunities to build connections and share emerging best practices; “The Challenges listserv became a great tool over time, but the early workshops and events is where we laid the foundation,” Nelson explains. [Nelson, C., phone interview with Policy Design Lab, December 20, 2016.]

Today, GSA continues to convene quarterly meetings, but the thriving CoP activity is largely driven by the community itself. Nelson adds: “Now listserv serves as support, people ask very specific, detailed, difficult questions, and it drives itself. Within one hour of a message going out, three people will respond to explain, ‘*This is how I did it, and here is the name of lawyer at my agency that can help’*. “ [Nelson, C., phone interview with Policy Design Lab, December 20, 2016.] He adds that many of the subjects of the quarterly meetings, workshops, and trainings now come from regular questions and discussions that happen on the listserv and throughout the CoP. [Nelson, C., personal communication with Policy Design Lab, January 19, 2017.]

Crowdsourcing and Citizen Science [crosslink content]

The Crowdsourcing and Citizen Science CoP represents a grassroots approach to building a knowledge-sharing community.

The group began three years ago as a small listserv with five members and has now grown to more than 300 Federal employees from 59 government organizations. [Olson, K., “Federal Agencies Take Citizen Engagement to a New Level,” GSABlog, December 12, 2016.] The CoP grew organically over time, “just because people wanted to connect with one another,” Chris Nelson recounts. [Nelson, C., phone interview with Policy Design Lab, December 20, 2016.] The group was largely self-organizing, and after a year or so OSTP and GSA plugged in to help support the existing community: “We have helped shepherd it along and develop it more formally from within OSTP, but it grew on its own while we helped support in parallel on the policy side.” [Nelson, C., phone interview with Policy Design Lab, December 20, 2016.] The community of practice continues to operate as a grassroots effort and gathers regularly to share resources, methods, and idea and feed into more formal policy work on the subject.

The recent [American Innovation and Competitiveness Act](https://www.congress.gov/bill/114th-congress/senate-bill/3084) has implications for new policies on prizes and challenges and citizen science. Because the two robust Communities of Practice existed, agency leaders had a resource to go and connect to; the communities helped create knowledge upwards and downwards as policy discussions took place.

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**Learn more:** [“Communities,” Digital.gov](https://www.digitalgov.gov/communities)

**Read more:**

[HHS](https://www.acf.hhs.gov/ocs/resource/establishing-a-community-of-practice-to-enhance-training-technical) suggests the following resources for establishing CoPs:

* Gottlieb, H., “[Learning Communities / Communities of Practice / Learning Circles: What are they? How do they work? Why would we want one?](http://www.help4nonprofits.com/NP_EDU-Cm_Learning_Communities.htmVisit%20disclaimer%20page)” Help 4 NonProfits, 2009.
* [Suarez, L.,](https://www.acf.hhs.gov/disclaimers) “[How to Boost Community of Practice Activities with the Creation of a Critical Mass](http://it.toolbox.com/blogs/elsua/how-to-boost-community-of-practice-activities-with-the-creation-of-a-critical-mass-7467)”, Toolbox, January 26, 2006.

In addition, see:

* Trayner, E. and Wenger-Trayner, B., [Introduction to communities of practice](http://wenger-trayner.com/introduction-to-communities-of-practice/), Wenger-Trayner, 2015.
* Lesser, L.E. and Storck, J., ["Communities of Practice and organizational performance"](http://www.providersedge.com/docs/km_articles/CoP_and_Organizational_Performance.pdf), IBM Systems Journal, 2001.
* McDermott, R. and Archibald, D., ["Harnessing Your Staff's Informal Networks",](http://hbr.org/2010/03/harnessing-your-staffs-informal-networks/ar/1) Harvard Business Review. March 2010.

## **Deliverable 5: Challenges to deployment / approach limitations (including lessons learned from agencies where implemented)**

For leadership

Only 37 percent of Federal employees feel creativity and innovation are rewarded by their agency, according to OPM’s 2015 [Federal Employee Viewpoint Survey](http://www.fedview.opm.gov/2015FILES/2015_FEVS_Gwide_Final_Report.PDF). Josh Marcuse observes, “You have to make it comfortable and safe for your change agents and provide a support system, or one of 2 things will happen: They will be co-opted by the forces of inertia, or they will leave your department and go somewhere where they can make bigger difference faster.” [Marcuse, J., phone interview with Policy Design Lab, December 21, 2016].Recognize the psychological and professional costs that the system imposes on the change agent, and figure out how to protect and reward innovators for risk-taking, he advises. [Marcuse, J., phone interview with Policy Design Lab, December 21, 2016].

For frontline innovators:

Internal bureaucratic resistance, external skepticism, and resource constraints are key obstacles to public sector innovation, according to a 2014 study of award-wining public innovations. Dr. Sanford Borins suggests: “As much as innovators should be planning the theoretical basis, structure, oversight, and delivery of their innovation, they should also be conceiving a defensive implementation strategy for gathering support and neutralizing opposition.” [Borins, S., “[The Persistence of Innovation in Government: A Guide for Innovative Public Servants](http://www.businessofgovernment.org/sites/default/files/The%20Persistence%20of%20Innovation%20in%20Government.pdf)”, p.29, IBM Center for the Business of Government, 2014.]

**Key ingredients for success**

* **Face skepticism head on with evidence**
* **Understand others’ institutional contexts**
* **Don’t let compliance be an excuse for inaction**
* **Some resilience may be required**
* **Clear communication should focus on outcomes**

**Face skepticism head on with evidence**

Innovation is an over-used word. Many among the most experienced and committed civil servants will be predisposed to suspicion about any agency-wide effort to support innovation, if only because their prior experience has been that many changes to processes within government that are termed “innovations” are not. The views of such skeptics are well-informed and likely valid. Use evidence to differentiate between real value creation and hype or buzzwords.

**Understand others’ institutional contexts**

No one size fits all; innovations must be adapted to best fit your agency. Frame the question around the problem to solve and the resources or talent needed. New practices can't be replicated across agencies if their implementation does not reflect the agency-specific contexts. For transformative change, champions must teach colleagues *how* to get things done, using storytelling to illustrate and salesmanship to persuade. [“[On Leading Change: Three Simple Lessons on Innovation from Government”,](http://plusacumen.org/blog/on-leading-change-three-simple-lessons-on-innovation-from-government/) Acumen, August 9, 2016.]

**Don’t let compliance be an excuse for inaction**

Learn exactly where genuine barriers are situated with respect to compliance with federal statutes, and educate others within agencies about actual vs. perceived boundaries. [crosslink to perceived obstacles for Lean Startup]

**Some resilience may be required**

As Jennifer Pahlka notes, “When you go where you are rare, you realize you’re working from a set of assumptions that most of your colleagues don’t share, and you have to step back–sometimes way back–and try to justify, explain, convince, win over dozens or hundreds of people in order to do what you came to do. […] It’s hard.” [Pahlka, J., “[On Extraordinariness,”](https://medium.com/code-for-america/on-extraordinariness-c48a2a5e955c#.qqm3xkwao) Medium, August 2, 2016.] Be persistent, but understand that change may come incrementally. Progress toward a goal is still progress, even if the result is a down payment for future transformation. “There is no change without resistance,” adds Josh Marcuse – “And resistance takes time to overcome." [Marcuse, J., personal communication with Policy Design Lab, January 18, 2017.]

**Clear communication should focus on outcomes**

Everyone must have a shared understanding of the purpose for the work, or why the innovation is important. This means that a clear and well-documented pathway should exist from a novel practice to the specific, mission-relevant outcomes that result from adoption.

**Culture of compliance v. culture of innovation**

Resistance to innovation also often emanates from structural constraints: There is often a natural divergence in the outlook and self-perceived responsibilities between career managers who see their primary duties as ensuring operational reliability under routine conditions and would-be innovators who perceive ways to fundamentally change processes for the better. Innovators may focus on the mid- to longer-term benefits of change, where modal managers focus on near-term change-related risks. Both viewpoints are valid. The divergence between them should be recognized, but it should not be confused with a fundamental difference in capabilities among individuals within an organization to participate in change processes.

Moreover, “The people who own the operations that government leaders would like to see ‘innovated’ aren’t measured by innovation,” writes Jennifer Pahlka, the CEO of Code for America. [Pahlka, J., “[The CIO Problem, Part 2: Innovation](https://medium.com/code-for-america/the-cio-problem-part-2-innovation-af24ebc038e5#.zighmgj0d),” Medium, May 31, 2016.] “They are measured by (or perceive themselves to be measured by) stability, reliability, and compliance with a wide range of policies, laws, and regulations. And they retain the authority and resources to get those results in the face of any number of innovation initiatives imposed upon them.” [Pahlka, J., “[The CIO Problem, Part 2: Innovation](https://medium.com/code-for-america/the-cio-problem-part-2-innovation-af24ebc038e5#.zighmgj0d),” Medium, May 31, 2016.]

Many career staff were drawn to public service by a strong internal motivation to make a difference; they aren’t looking for a lecture on *why* they should be innovative. Instead, they operate day to day in an environment that can be naturally inhibitive. With varying appetites for risk-taking and openness for change – they’re looking for tools and capabilities to do their jobs better. Leadership must understand that the default judgment in almost any established organization falls toward maintaining the status quo and focusing only on near-term objectives. That is why would-be innovators require recognition and support, and why processes of innovation require some degree of institutionalization in order to be successful in the long term.

## **Deliverable 6: How-To: Steps for deploying, practices for adapting**

Components:

* **Core lessons on success conditions for new innovations**
* **Four strategies to build support**
* **“Innovative dialects” – breaking down buzzwords**
* **Taxonomy of entrepreneurial skills**

**Innovation is a learned skill that can be shared**.

Innovative methods are not mystical knowledge; they’re concrete skills that can be learned and institutionalized. As Jen Pahlka observed: "User-centered, iterative, data-driven practices are not something young people in jeans do. They are not a gift bestowed on people from a certain place who look a certain way or speak a certain way or who come from certain companies. They are simply skills one learns, a bit like French or programming or origami. Government happens to need more of these skills in order to serve the public better, but the best way to spread those skills is to see them as ordinary." [Pahlka, J., “[The CIO Problem, Part 2: Innovation](https://medium.com/code-for-america/the-cio-problem-part-2-innovation-af24ebc038e5#.zighmgj0d),” Medium, May 31, 2016.]

**Four strategies to build support**

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| **Strategies for Spreading Innovation** | | |
| **↓ Top-down ↓** | **↑ Bottom-out/up ↑** | **↔ Middle-out ↔** |
|  | **Outside/in** |  |

A summary of views from conversations with 30 innovators, with perspectives from DOD, NASA , DOL, and NSA highlighted.

**An “all of the above” strategy**

There are a range approaches to seeding support for innovative methods – top-down, middle-out, and bottom-up (or out). As with innovative methods, there’s no single strategy appropriate for every context; innovators can evaluate which approach best serves their program or initiative in their particular organization. “You have to understand how to balance your portfolio of change strategies,” says Josh Marcuse of DOD, “And it's usually the case that you're doing a blend of several in a portfolio of change management initiatives.” [Marcuse, J., phone interview with Policy Design Lab, December 21, 2016]. It’s rarely an either/or dichotomy; top-down and bottom-up strategies may happen simultaneously on different projects. For different audiences, “pick your internal or external tone and carefully calibrate the dial,” advises Michael Edson. Avoid using language that unnecessarily antagonizes skeptics or backs them into a corner. [Edson, M., phone interview with Policy Design Lab, July 2016.]

Leadership support is necessary but not sufficient

Consistently, across all agencies and all initiatives, almost every interview subject stressed the central importance of high-level support and buy-in. The strong support of senior leadership is frequently necessary to execute a new initiative. However, relying only on direction from senior-most leaders is rarely sufficient to drive lasting change. Josh Marcuse cautioned against pursuing only a top-down approach, in which the strong support of senior leadership was the only strategy for pursuing a change. ”It's tempting if you think you have the backing of the boss, but it's risky, possibly unwise," he notes. [Marcuse, J., personal communication with Policy Design Lab, January 18, 2017.]

He added: “Top-down strategies often require significant time to implement, very strong leadership support -- meaning spending a lot of political capital -- in the face of opposition, and its own funding allocation dedicated to implementation.  If you don’t have that, you probably need to have a bottom-up or middle-out strategy that merely looking for leadership permission, as opposed to relying on leadership being your champion.” [Marcuse, J., personal communication with Policy Design Lab, January 18, 2017.]

Enable front-line employees

Agencies can encourage and support a flourishing culture of innovation, but organizations will only develop a culture of innovation if front-line employees are encouraged and enabled to be innovative, shares Carol Lundquist of NSA. She writes, “Innovation will not be effective if imposed from above, from the outside, or even mandated from a central location. And innovation will not be effective if a specific model or approach is identified as the ‘Innovation method’ for an organization.” Instead, she says, a culture of innovation should allow for a diversity of execution approaches so organizations can choose the approach most likely to achieve their desired outcome based on their particular situation at that time. She recommends structuring centralized support at the lowest level that can effectively task and allocate funding and personnel resources but with distributed and grassroots decision making for assessment, selection, and execution. This approach recognizes that workers know their jobs and can identify when something new will make it better. Frontline- staff can identify, select, and evaluate candidate technologies or approaches, and recommend which ones the organization should pursue. Leadership can support by evaluating staff recommendations, assessing the viability of the idea and how well it aligns with strategic goals, and provide resources to pursue the initiative. [Lundquist, C., personal communication to Office of Science and Technology Policy, February 2016.]

Reframe through collaborative dialogue

A solely top-down approach for infusing innovation can engender cultural pushback, agrees Lynn Buquo, manager for NASA’s Center of Excellence for Collaborative Innovation. [Buquo, L., personal communication with Policy Design Lab, January 19, 2017.] Instead, empowering front-line staff – getting information directly into users’ hands, and facilitating a collaborative dialogue – creates an empowering environment where it’s OK to come in and use new ideas. It can take a concerted effort and managerial frameshift to move from teaching the status quo (an emphasis on how to program manage, or how to write program requirements) to an emphasis on how to look at and frame problems. Reframing the culture “is very much a multi-part, collaborative process,” she notes – and initiatives need to be relevantly grounded in the day-to-day working language for front-line staff. [Buquo, L., personal communication with Policy Design Lab, January 19, 2017.]

Using “bottom-out or “outside-in” strategies that emphasize peer-to-peer mentoring and support can effectively spread new practices. Virginia Hamilton, regional administrator at the Department of Labor, brought human-centered design principles into the Department. [Crosslink HCD case study: DOL] But it didn’t happen overnight; she organically grew support over time from the ground-up. Instead of going to leadership and formally pitching a new idea, Hamilton strategically started with regional staff and cultivated peer champions. “People who learn the process are your biggest advocates for the approach,” she notes. “The more they used the methods, the more interest it sparked. People are naturally curious and want to be part of something; they’ll begin to ask questions and want to do what their peers are doing.” [Hamilton, V., phone interview with Policy Design Lab, December 2, 2016.]

At DOL, the passage of a new law, the [Workforce Innovation and Opportunity Act, (](https://www.doleta.gov/wioa/)WIOA) presented an opportunity to infuse innovation: “People tend to think about how to implement a new law or policy the easiest way possible. What we wanted was that states and local governments step back from their traditional programs and put the customer at the center of everything they were doing,” explains Hamilton. Using the opportunity to ask how program leaders and staff might do their work differently sparked a genuine dialogue: “People came up to me after our first meeting and said “if you had just thrown up a powerpoint slide deck and told us how we were going to have to implement the new law, we would have left at lunch. When they knew we were serious about putting the customer at the center, they were in.” [Hamilton, V., phone interview with Policy Design Lab, December 2, 2016.]

To persuade peers on the value of an innovation, Hamilton advises: “Orient your language toward the problem you want to help people solve. Don’t sell it as a process. Break it into individual pieces and keep the focus on solving the problem for the customer. Scale back the evangelizing, and think about how people within the agency will access the idea. Give them little bits at a time as opposed lecturing on why the new method is so great.” [Hamilton, V., phone interview with Policy Design Lab, December 2, 2016.]

To encourage change from the outside-in, she also recommends:

* Identify people that are trained and experienced in the innovation you want to introduce. Someone with credibility and experience can help you communicate the ideas.
* Find allies that will give you cover and support – bring them along and allow them to help.
* Don’t under estimate the microstructures; the little things matter the most. Knowing how to effectively run a meeting can be instrumental.
* Culture change happens with buy-in. Meet people where they are at, and connect a new approach back to their work and how it can help.
* Use mentors to encourage accountability and help bring people along in the process, and also encourage peer connections that create community, increase engagement, and spark idea sharing. [Hamilton, V., phone interview with Policy Design Lab, December 2, 2016.]

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**Core lessons learned for successfully encouraging innovative approaches:**

No matter which new idea or process improvement you’re trying to encourage, researchers and practitioners point to a key set of tactics to use:

* **Start small, and let success build on itself.** Start with well-documented early “wins” (i.e. *evidence*, rather than simply inspiration, provided by small piloted successes.)
* **Have multiple touchpoints to engage community:** Leadership can use a public platform to spotlight an issue, but it’s often important to have a concurrent “bottom-out” strategy.
* **Establish accountability**: Make people commit to doing things in front of the highest levels of leadership.
* **Look for allies:** Take a team approach. Todd Park, former HHS and US CTO, has said that when he had a new idea to drive innovation, he’d go to three to five people who previously had the idea and enlist them for help.[Rich, S., “[U.S. CTO Todd Park: 3 Ingredients for a Private-Sector Mentality in Government](http://www.govtech.com/pcio/US-CTO-Todd-Park-3-Ingredients-for-a-Private-Sector-Mentality-in-Government-.html)”, Government Technology, October 4, 2012.]
* **Build community and networks:** “Even if it’s just lunch with someone in a different division, you have to start practices that break out of silos. Build communities of practice in your own agency and eventually you’ll be able to move up and go to Congress to discuss modifying regulations,” explained [Sarah Heck](https://www.nextgengovt.com/speakers/sarah-heck), Chief of Staff for the Bureau of Educational and Cultural Affairs and the State Department. [Belme, C., [“Bring the Startup Culture to Your Agency](https://www.govloop.com/bring-startup-culture-agency/)”, GovLoop, August 4, 2016.]

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| **Breaking down the buzzwords [[crosslink with V9 – Lean Startup buzzword box]]**  At its core, **innovative methods are about solving problems more effectively**. But “innovative dialects” bring their own blizzard of jargon: Lean Startup. Agile development. Design thinking. Human centered design. It can be tempting to dismiss these terms as the trendy buzzwords du jour -- especially when you’re a career public servant with ample experience in management theory. But underneath the specific terminology, these methodologies have some common, evergreen principles that help facilitate more effective-problem-solving:   * **Understand the root problem** by using problem definition frameworks (root cause analysis, systems mapping, backcasting, etc.) To solve the right problem, you need to ask the right question. * **Source ideas** from unexpected places; good ideas can come from anywhere. * **Identify the end-user**, and *talk to them* as part of your planning process * **Iterate early and often**; start small with pilots or prototypes before investing significant resources in expensive and time-consuming development phases, * **Use feedback loops**; incorporate early feedback into your work to make it better. * **Gather evidence** to support your decision-making process, and scale only what works   [Read more](https://www.startupgrind.com/blog/cult-of-the-feedback-loop-lean-startup-vs-six-sigma-vs-everything-else/) on how to cut through overlapping management methodologies to focus on the key takeaways.  [Holman, R., phone interview with Policy Design Lab, August 12th, 201] |

**Innovation is a skill: How to learn it**

Creative, innovative thinking is a skill that can be learned. A four-step process called the “Inventure Cycle” represents the life cycle of an innovative idea, according to Dr. Tina Seelig, Professor of the Practice in the Department of Management Science and Engineering (MS&E) at Stanford University:

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| **The Inventure Cycle: From Inspiration to Implementation**  *“There is an insatiable demand for innovation and entrepreneurship. These skills are required to help individuals and ventures thrive in a competitive and dynamic marketplace. However, many people don’t know where to start. There isn’t a well-charted course from inspiration to implementation. Other fields — such as physics, biology, math, and music — have a huge advantage when it comes to teaching those topics. They have clearly defined terms and a taxonomy of relationships that provide a structured approach for mastering these skills. That’s exactly what we need in entrepreneurship. Without it, there’s dogged belief that these skills can’t be taught or learned. Below is a proposal for definitions and relationships for the process of bringing ideas to life, which I call the Inventure Cycle. This model provides a scaffolding of skills, beginning with imagination, leading to a collective increase in entrepreneurial activity:*  C:\Users\CARALE~1\AppData\Local\Temp\msohtmlclip1\02\clip_image001.png   * + ***Imagination****is envisioning things that do not exist*   + ***Creativity****is applying imagination to address a challenge*   + ***Innovation****is applying creativity to generate unique solutions*   + ***Entrepreneurship****is applying innovation, bringing ideas to fruition, by inspiring others’ imagination”*   **Watch:** Tina Seelig on the [“Inventure Cycle”](http://ecorner.stanford.edu/videos/3387/The-Inventure-Cycle) [2.5 min video]  Seelig, T. and Blank, S., [“How to Think Like an Entrepreneur: The Inventure Cycle”, SteveBlank.com, September 9, 2014.](https://steveblank.com/2014/09/09/how-to-think-like-an-entrepreneur-the-inventure-cycle/)  [Image Source:](https://steveblank.files.wordpress.com/2014/09/inventure-cycle.png) |

## **Deliverable 9: Future directions (“next practices as opposed to best practices”)**

Innovation is not a process with a fixed beginning and ending. An innovative method today may be the widely adopted status quo ten years from now. [Ries, E*., The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*, p. 268, Crown Business Publishing, 2011] ] How should, and can, government continue to change? Former US CTO Aneesh Chopra argues that a collective change of conversation is first needed. It’s not a question of big or small government; it’s a matter of *smart* government. [Chopra, *Innovative State*, p. xi] When government works better, lives are improved and civic confidence grows. In order for government to work better, the practices of government must continually improve and evolve. In other words, government must continually innovate and get smarter.

New methods will continue to emerge. Seasoned innovators and would-be changemakers alike need to ask: What does a next-generation Toolkit look like? What innovative methods are we missing that aren’t on our radar yet?

**Next steps: Questions for agency leadership to consider:** [Kalil, T. and Miller, J., Building and Using the Innovation Toolkit, Unpublished memo, January 13, 2015.]

* ***Focus***: What are specific agency problems where Innovation Toolkit approaches could generate some initial wins? How will you identify “early adopters” within your agency that are intrinsically motivated to adopt specific tools and just need permission or small amounts of time, training and funding?
* ***Leadership*:** How can we develop a strategy to identify and/or recruit innovation leaders, like Chief Innovation Officers or functional roles like Chief Innovation Counsel?
* ***Incentives*:** What are meaningful incentives and forms of recognition exist to promote broader adoption? From your employees’ perspective, what would have an impact on their ability and willingness to use these approaches?
* ***Performance*:** How can program performance be tied to the use of specific tools? How can we collaborate with budget and performance offices to enable the incorporation of these tools into performance management and budget processes?
* ***Professional development*:** How can we most effectively expand opportunities for training, professional development and experiential learning to support these approaches? How do we mainstream innovation approaches in the knowledge, skills and experiences needed for Federal employees to advance to mid and senior level roles?
* ***Government-wide approaches*:** What are opportunities for government-wide approaches, such as SES onboarding?
* ***External collaborations*:** What are potential external collaborators such as universities, foundations, non-profits, professional societies, private sector experts and training providers?

## **Deliverable 8: Examples of policy that have enabled or encouraged approach (legislation, exec order)**

Legislation

[S.3084 - American Innovation and Competitiveness Act](https://www.congress.gov/bill/114th-congress/senate-bill/3084), December 2016

[The America COMPETES Reauthorization Act](https://www.gpo.gov/fdsys/pkg/PLAW-111publ358/content-detail.html)

Provides all Federal agencies broad authority to conduct prize competitions.

Policy Guidance

“[A Strategy for American Innovation](https://www.whitehouse.gov/sites/default/files/strategy_for_american_innovation_october_2015.pdf)”, National Economic Council and Office of Science and Technology Policy, October 2015.

“[Open Innovator’s Toolkit](https://www.whitehouse.gov/sites/default/files/microsites/ostp/openinnovatortoolkit_nstcmemo.pdf),” National Science and Technology Council, February 8, 2012.

Former CTO Aneesh Chopra lays out his vision for an innovation toolkit in government.

“[Principles for Federal Engagement in Standards Activities to Address National Priorities](https://www.whitehouse.gov/sites/default/files/omb/memoranda/2012/m-12-08_1.pdf)” OMB, M-12-08, January 17, 2012.

“[Winning the Future through Open Innovation](https://www.whitehouse.gov/sites/default/files/microsites/ostp/openinnovation_memo0611_finalv4.pdf),” Office of Science and Technology Policy, June 8, 2011.

“[A Strategy for American Innovation: Driving Towards Sustainable Growth and Quality Jobs](https://www.whitehouse.gov/sites/default/files/microsites/ostp/innovation-whitepaper.pdf)”, Office of the President of the United States, September 2009.

## **Deliverable 7: Online inventory of resources**

Agency specific views on innovation

“[Innovation as a Problem Solving Tool in Government](https://www.hhs.gov/idealab/wp-content/uploads/2017/01/Innovation-as-a-Problem-Solving-Tool-in-Government_final.pdf)”, Office of the Chief Technology Officer - U.S. Department of Health and Human Services, December 2016.

An overview of how HHS has deployed innovative approaches to deliver on its mission.

“[Open Innovation: Practices to Engage Citizens and Effectively Implement Federal Initiatives](http://www.gao.gov/products/GAO-17-14)”, U.S. Government Accountability Office, October 13, 2016.

Open innovation tools for more effective citizen engagement.

“[Innovation at DARPA](http://www.darpa.mil/attachments/DARPA_Innovation_2016.pdf)”, DARPA, July 2016.

This report outlines the history of innovation at DARPA and discusses processes and practices within the institution to create an innovative environment.

Davis, J. and Richard, E. E., “[Advancing Innovation Through Collaboration: Implementation of the NASA Space Life Sciences Strategy](http://www.nasa.gov/pdf/649978main_IAC-11E612x9614AdvInnov.pdf)”, International Astronautical Federation, 2011]

An overview of the current collaborative strategies in NASA and future possibilities.

Davis, J. and Richard, E. E., [“Accelerating Innovation: NASA Human Health and Performance](http://www.aiaahouston.org/presentations/Open_Innovation_%E2%80%93_Results_New_Capabilities_Strategic_Framework.pdf)”, NASA, January 29, 2016.

Slide deck on instituting innovative approaches based on NASA experiences with human health and performance.

“[Data and Analytics Innovation: Emerging Opportunities and Challenges”,](http://www.gao.gov/assets/680/679903.pdf) US Government Accountability Office, September 2016.

GAO convening summary of the emerging innovation opportunities presented by big data and analytics.

**Multimedia content:**

[Gov Innovator Podcast](http://govinnovator.com/): Conversations on useful practices and insights from public sector innovators and experts, hosted by Andy Feldman, a Visiting Fellow at the Brookings Institution and former Special Advisor for Evidence-Based Policy at OMB.

* “[Implementing a department-wide innovation strategy](http://govinnovator.com/bryan_sivak/)” with Bryan Sivak, former Chief Innovation Office of the U.S. Department of Health and Human Services
* “[Learning from innovative businesses about creating a culture of experimentation in government](http://govinnovator.com/jim-manzi/)” with Jim Manzi, author of *Uncontrolled*

[Stanford’s e-corner](http://ecorner.stanford.edu/) contains several conversations, videos and podcasts with leading innovators and entrepreneurs. Content includes:

* “[Make Government Work Better for All](http://ecorner.stanford.edu/podcasts/3426/Make-Government-Work-Better-for-All)” with Jenn Pahlka, founder and executive director of Code for America and former U.S. Deputy Chief Technology Officer, discusses how government can harness technology and design principles.
* “[From Inspiration to Implementation](http://ecorner.stanford.edu/videos/3386/From-Inspiration-to-Implementation-Entire-Talk)” with Tina Seelig, Professor of Practice at Stanford’s School of Engineering, introduces the Inventure Cycle and discusses the attitudes and actions needed to foster innovation.
* “[Innovate for America](http://ecorner.stanford.edu/videos/2756/Innovate-for-America-Entire-Talk)” with Aneesh Chopra, former US Chief Technology Officer, describes the potential of technology and innovation to unlock national economic growth and prosperity in the United States.

Steve Blank’s [repository of resources](https://steveblank.com/slides/) related to innovation and entrepreneurship:

* Steve discusses work with the government and implementation strategies for innovation tools at the National Governors Conference in 2014: [Part 1](https://www.youtube.com/watch?v=XAN1pNO10KE&feature=youtu.be) and [Part 2](https://www.youtube.com/watch?v=8TYKnI7zMI4&feature=youtu.be)

**Additional Toolkits on Innovation**

[Capacity to Innovate](http://capacitytoinnovate.org/). : Guidance for innovating in your organization

[DIY Toolkit](http://diytoolkit.org/) : Practical tools to trigger & support social innovation.

[Open Opportunities](https://openopps.digitalgov.gov/) : Platform to engage with other Federal employees on projects across the government from digitalgov.gov

**Literature on innovation**

Reports

“[The 2016 Federal Leadership Summit: Harmonizing Data, Shared Services, and Culture](https://lnwprogram.org/sites/default/files/2016_Federal_Leadership_Summit_-_Harmonizing_Data_Shared_Services_and_Culture.pdf#19)”, Leadership for a Networked World, 2016.

Summit report on how to leverage and apply of 21st century capabilities create a culture of innovation.

“[Leadership from Invention to Impact: Insights from the 2015 Public Sector for the Future Summit at Harvard University](https://lnwprogram.org/sites/default/files/2015_Leadership_from_Invention_to_Impact.pdf#12)”, Leadership for a Networked World, 2015.

Summary report from summit at Harvard on economics of scale, evidence based government, change agents and more.

 “[The Architecture of Innovation: Institutionalizing Innovation in Federal Policymaking](https://mccourt.georgetown.edu/sites/mspp/files/documents/the_architecture_of_innovation_mccourt_beeck_center_georgetown_university.pdf)”, Beeck Center for Social Impact and Innovation and the McCourt School of Public Policy at Georgetown University, October 2016.

A review of recent Federal innovation efforts and an assessment of future structural reforms that may enable greater progress.

Eggers, W. and Singh, S.K.,“[The Public Innovator’s Playbook: Nurturing bold ideas in government](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwiwxvib8svPAhXFGR4KHVv_DOkQFggeMAA&url=http%3A%2F%2Fwww2.deloitte.com%2Fcontent%2Fdam%2FDeloitte%2Fglobal%2FDocuments%2FPublic-Sector%2Fdttl-ps-public-innovators-playbook-08082013.pdf&usg=AFQjCNGsaCSTXH9mWQF6tAiaxR2ZNe0ENA&sig2=2Z4ie-_tT8cT4TW9JVgVMw)”, Deloitte Research, 2009.

A playbook for creating and maintaining a culture of innovation.

Edson, M.,“How Change Happens:T[h](http://www.slideshare.net/edsonm/how-change-happens)eO[p](http://www.slideshare.net/edsonm/how-change-happens)e[n](http://www.slideshare.net/edsonm/how-change-happens)L[a](http://www.slideshare.net/edsonm/how-change-happens)bCha[n](http://www.slideshare.net/edsonm/how-change-happens)g[e](http://www.slideshare.net/edsonm/how-change-happens) [M](http://www.slideshare.net/edsonm/how-change-happens)o[d](http://www.slideshare.net/edsonm/how-change-happens)el”, OpenLab Workshop, December 7, 2015.

A slide deck from Michael Edson on how change processes work, and what can be done to accelerate change within institutions.

Molesky, J., “[4 Significant Ways to Improve Your Ability to Innovate](https://www.thoughtworks.com/insights/blog/4-significant-ways-improve-your-ability-innovate)”, ThoughtWorks, March 12, 2015.

Joanne Molesky, Principal Associate at ThoughtWorks and Co-author of *Lean Enterprise,* suggests how your organization can innovate

Borins, S., “[The Persistence of Innovation in Government: A Guide for Innovative Public Servants,”](http://www.businessofgovernment.org/sites/default/files/The%20Persistence%20of%20Innovation%20in%20Government.pdf) IBM Center for the Business of Government, 2014.

Guide for public servants for bringing innovation into public sector rooted in longitudinal analysis

Fountain, J., “[Implementing Cross-Agency Collaboration: A Guide for Federal Managers](http://www.businessofgovernment.org/sites/default/files/Implementing%20Cross%20Agency%20Collaboration.pdf)”, IBM Center for Government, 2013.

How to create and maintain cross-agency collaboration.

**Articles**

Grant, A., “[How to Build a Culture of Originality](https://hbr.org/2016/03/how-to-build-a-culture-of-originality)”, Harvard Business Review, March 2016.

Tips for building originality into your work culture.

Khan, Z. and Joseph, K., “[Embracing the Paradoxes of Innovation](https://ssir.org/articles/entry/embracing_the_paradoxes_of_innovation)”, Stanford Social Innovation Review, Summer 2013.

Common challenges that arise in innovation and how to handle them

Nagji, B. and Tuff, G., “[A Simple Tool You Need to Manage Innovation](https://hbr.org/2012/05/a-simple-tool-you-need-to-mana),” Harvard Business Review, May 2012.

An introduction to the Innovation Ambition Matrix tool.

Hamel, G., “[The Why, What, and How of Management Innovation](https://hbr.org/2006/02/the-why-what-and-how-of-management-innovation)”, Harvard Business Review, February 2006.

Digging into the why and how of managing innovation.

**Books**

Chopra, A.*,*[*Innovative State: How New Technologies Can Transform Government*](http://www.innovativestate.com/), Grove Press, 2014.

Book from former U.S. Chief Technology Officer on bringing innovation and technology into government. Supporting [talk](http://www.cfr.org/technology-and-science/fostering-government-open-innovation/p36505) with Aneesh Chopra summarizes the focus of the book.

Christensen, C., *The Innovator’s Dilemma: When New Technologies Cause Great Firms to Fail*, Harvard Business Review Press, May 1, 1997.

Seminal book on disruptive innovation and adoption of new technologies

[Christensen, C. and Raynor, M., *The Innovator’s Solution: Creating and Sustaining Successful Growth,* Harvard Business Review Press, September, 2003.]

Business advice on how to anticipate and handle innovation.

Moore, G., *Crossing the Chasm and Dealing with Darwin: How Great Companies Innovate at Every Phrase of the Evolution*, Penguin, 2005.

Chesbrough, H., *Open Innovation: The New Imperative for Creating and Profiting from Technology,* Harvard Business School, 2003.

Rogers, E., *Diffusion of Innovations*, Free Press (Simon & Schuster), 2010.

How new ideas are communicated and spread.

Ries, E., *“The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses”,* Crown Business Publishing, 2011.

Behn, R., “The Adoption of Innovation: The Challenge of Learning to Adapt Tacit Knowledge" in *Innovations in Government: Research, Recognition, and Replication*, Brookings Institution Press, Ash Institute for Democratic Governance and Innovation, 2008.

Selected academic literature

Bason, C., "[Public Managers as Innovators: In search of Design Attitude](https://www.cscollege.gov.sg/Knowledge/Ethos/Ethos%20Issue%2012%20June%202013/Pages/Public%20Managers%20as%20Innovators%20In%20Search%20of%20Design%20Attitude.aspx)", Ethos, 2013.

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Damanpour, F. and Scheneider, M., “[Characteristics of Innovation and Innovation Adoption in Public Organizations: Assessing the Role of Managers](https://drive.google.com/file/d/0B-sJFwk5kC3UU1loQ25yRllRU1E/view)”, Oxford Journal of Public Administration and Research Theory, pp. 495-522, July 2009.

Damanpour, F. and Schneider, M., “[Phases of the adoption of innovation in organizations: Effects of environment, organization, and top managers”,](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8551.2006.00498.x/full) British Journal of Management, 17:215-36. 2006.

Poole, M., Mansfield, R. and Gould-Williams, J., “[Public and Private Sector Managers Over 20 years: A Test of the 'Convergence Thesis](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9299.2006.00626.x/abstract)'”, Public Administration 84 (4): 1051-76, 2006.

Scott, S. G., and Bruce, R. A., “[Determinants of innovative behavior: A Path Model of Individual Innovation in the Workplace](https://www.jstor.org/stable/256701)”, Academy of Management Journal, 37:580-607 1994.

Stone, D. C., “[Innovative Organizations Require Innovative Managers](https://www.jstor.org/stable/976260?seq=1#page_scan_tab_contents)”, Public Administration Review, 41 (5): 507-1, 1981.

Walker, R. M., “An Empirical Evaluation of Innovation Types and Organizational and Environmental Characteristics: Towards a Configuration Approach”, Journal of Public Administration Research and Theory 18 (4): 591-615, 2008.

Walker, R. M., “[Innovation Type and Diffusion: An Empirical Analysis of Local Government](http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9299.2006.00004.x/abstract)”, Public Administration, 84 (2): 311-35, 2006.

Walker, R. M., “[Innovation and Organizational Performance: Evidence and a Research Agenda](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1306909)”, AIM (Advanced Institute of Management Research, Cardiff University) Working Paper, 2004.

**Annex of interviews:**

**Phase 1 interviews**

Ann Mei Chang, USAID

Steve Blank, serial entrepreneur

Aneesh Chopra, former US CTO

Dan Correa, OSTP

Dan Doney, DIA

Michael Edson, formerly Smithsonian

Susannah Fox, HHS

Chris Gerdes, DOT

Tom Kalil, OSTP

Seema Patel, USAID

Katherine Maher, Wikimedia Foundation

Geoffrey Moore, author

Sonal Shah, Beeck Center at Georgetown

Bryan Sivak, formerly HHS

Jim Spohrer, IBM

Kathy Stack, Arnold Foundation

Phase 2 interviews:

Jeff Davis, NASA

Jason Kessler, NASA

Lynn Buquo, NASA

Virginia Hamilton, DOL

Jim Macrae and team, HHS’ HRSA

Joshua Marcuse, DOD

Read Holman, OSTP

Mark Naggar, HHS

Camron Gorgoinpour, Air Force Office of Transformational Innovation

Christofer Nelson, GSA

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Joanie Newhart

Greg Downing, HHS

Andrew McMahon, GSA

Hollie Russon Gilman, Beeck Center at Georgetown