America has a long history and worldwide reputation for innovation and problem-solving. In the modern age, the U.S. federal government has collaborated with industry and academia to catalyze some of the most important scientific and technological advances of our time—sending astronauts to the moon and unmanned vehicles to Mars; helping to launch the internet; and contributing to significant medical breakthroughs, including most recently, the development of a COVID-19 vaccine.¹

On the flip side, the federal government is perceived as a bureaucratic organization—bound by rules and regulations, stifled by processes, lacking in creativity, and paralyzed by an aversion to risk.

The January 2022 Federal Innovation Summit, sponsored by the Partnership for Public Service and co-hosted by MITRE, brought together more than a dozen leading innovation experts from across government, industry, and academia to offer novel approaches to creating a culture of innovation within federal agencies. More than 240 federal employees from 40 agencies attended.

The sequence of sessions built a narrative, beginning with the importance of adopting an innovation mindset—embracing learning, accepting risk, and engaging the right people who see potential and value innovative ideas.

It’s also critical to build innovation into the way you operate by using your strategic plans to identify where new ideas are needed, and by framing the outcomes that energize innovators to try to achieve them.

Your follow-through process for vetting and encouraging innovators should stress inclusivity and diversity of thought. The best ideas don’t often come from the experts in a particular functional area.

Finally, measurement closes the loop. The value of innovation can only be understood if you have clear measures that capture change.

All these aspects of innovation were highlighted by speakers and panelists at the summit.

This paper synthesizes key takeaway messages from the conference. (Some speakers are quoted. Most participated under the Chatham House Rule, and their insights are summarized.)
LEARNING MINDSET AND THE VALUE PARADOX

Building a culture of innovation at a large organization starts with fostering a learning mindset. The idea is to start by creating innovative competencies in the workforce, and employees themselves will build the culture, regardless of the outcome of a specific project.

Maj. Steven Lauver, Division Chief for AFWERX Spark, described what he calls the value paradox inherent with innovation.

“It’s an acknowledgment that it’s difficult to articulate future wins. And sometimes that pales in comparison to the discrete pain of an immediate loss,” he said.

When a project fails, it can hurt an employee’s career or reputation and cost the organization money.

Lauver advises leaders to acknowledge “early and often” that the inefficiency of innovative actions is both known and accepted, and that innovation is an intentional tradeoff for outsize opportunity, with outcomes expected in three to five years.

Leaders should also acknowledge and articulate the less tangible near-term benefits.

“Allowing your people to fully participate in innovation-related activities is forced development,” Lauver explained. “They are picking up competencies of how the world actually works, how to navigate the bureaucracy in your organization, how to build a team and communicate ideas effectively. It also has an impact on morale.”

Although the true return on investment in an innovation may take years to measure, leaders must continue to hold their people accountable along the way, says Lauver. He references a Harvard Business Review article² that describes innovative cultures as highly collaborative and non-hierarchical but counterbalanced by rigorous discipline and an intolerance for incompetence.

ACCEPTING RISK AND EMBRACING FAILURE

Risk-taking is at the heart of disruptive innovation, and there is no proposition without risk. Leaders from several federal agencies outlined their strategies for handling risk in a culture that remains risk averse.

Understand the Problem

As an innovator, make sure you understand the problem. What are you trying to solve for? Recognize that there may be different ways to solve the problem, and you may need to be flexible along the way.

Understand the Stakeholders

Whether it’s Congress, the White House, special interest groups, or internal leaders within your organization, make sure you understand the viewpoints of all your stakeholders, and that you can articulate your own vision. Respect the role of GAO auditors, and ensure you are clear and transparent with agency leaders, and that they are aligned with your decisions.

Prepare to Pivot

When balancing a stock portfolio, you usually build a strategy for both low and high-risk scenarios. All risk is not the same. Leaders have to perceive and manage risk in variable circumstances. You must be willing to change course and pursue alternate, lower risk strategies.

Be Patient

Taking risks is not necessarily fast. The timeline for innovation outcomes is often measured in years. Don’t rush the process. Ensure that you have time to get the right people involved and committed to the project.
Embrace Failure

Failure is required in the world of innovation. It’s a form of knowledge building. Document the lessons learned, and what you built along the way that could be repurposed. The cost of inaction can be more expensive than failure in the long term.

INNOVATION ADOPTION

Innovation is not just about addressing a technical or engineering challenge.

Joshua Marcuse, head of federal strategy for Google Cloud, describes innovation as a psychological, sociological, and organizational behavior challenge.

Marcuse uses the Everett Rogers Diffusion of Innovations model as the cornerstone of his strategy for promoting innovation in federal agencies.

As shown in Figure 1, the model defines Innovators as just 2.5% of the population. They create new ideas for an audience or customer base of Early Adopters, who represent the next 13.5%. The Early Majority makes up 34% and brings the idea past the tipping point. The Late Majority, also 34%, are not eager for change. The Laggards make up 16% and are actually resistant to change.

Marcuse was previously executive director of the Defense Innovation Board, and he explained what he’s learned from speaking with more than 1,000 innovators and early adopters in the federal government.

“They are very focused on the laggards. We tend to be worried about people who are a threat to our well-being, a threat to our status, a threat to our employment. That interpersonal conflict in the workplace is very threatening,” he said.

His advice to innovators in federal government: Stop worrying about the laggards. Instead, identify the 13% of early adopters in your organization, and focus exclusively on those who are receptive and supportive of new ideas.

“They are the ones who are going to give you those opportunities to experiment, to learn from failure, to iterate,” he said.

Marcuse believes it takes five years to fully adopt and implement change.

But he has repeatedly observed innovators who give up on their efforts within three or four years. He encourages innovators to stick with a project through its fifth year.
STRATEGIC PLANNING
During the summit, federal participants shared case studies of leveraging strategic plans to promote innovation and received feedback from private sector leaders. Highlights from their discussions are summarized below.

Keep It Cool
Innovators have a reputation for being creative and free-spirited, and they often view strategic planning as a top-down, distant, and “uncool” exercise. However, access to resources often depends on whether your project aligns with strategic priorities. Take the time to understand the organization’s larger strategic plan. Often, it’s a broad, high-level description, and your project may fit the strategic intent.

Start Small
Create space in the infrastructure for frontline employees to bring ideas forward. Without restricting their freedom and energy at the tactical level, try to connect their ideas to strategic priorities, with a goal of scaling more and better innovations at the enterprise level.

Advocate for Resources
It’s critical to understand your budget process, your staffing process, and other internal processes like legal, finance and contracting. It may be difficult to advocate for resources and work creatively under the constraints of your agency if you don’t fully understand or appreciate its management framework.

DIVERSITY OF THOUGHT
By encouraging diversity of thought, leaders create an organizational culture that allows for many voices to bubble up. When leaders create trust, employees feel they can safely present bold, fresh ideas.

Leaders from government, industry and academia described their efforts to ensure diversity of thought and to foster the innovation mindset.

Positional Authority
In complex environments like federal agencies, it’s common for employees to default to positional authority. The voices of more junior members (junior by age, position, or tenure at the organization) may be squeezed out. Leaders must create a culture that seeks out those voices.

Developing Deep Regard
Some of the best innovators are people who have played different roles at different times in their careers. They instinctively have a deep regard for someone who is different from them or serving in a different role. They see their teammates as individuals and understand what each one brings to the table in terms of both work and life experiences.

Discourage Self-Sorting
In some organizations, employees will migrate toward like-minded people. One former federal leader found that her staff had self-segregated themselves into four divisions according to their four personality types. That made it difficult to collaborate on consequential problems requiring the entire organization’s expertise. Take time to understand and communicate how diversity of thought and personality can benefit the organization and individual teams within it.

MEASUREMENT
What metrics can federal agencies use to measure innovation? For many federal agencies it’s difficult to assign quantitative measures to what is often a largely qualitative program.

Industry focuses on the bottom line, while government agencies often focus on mission activities or improved customer services.
Justin Brunelle, a principal researcher at MITRE, described some of the metrics currently used by federal agencies, as outlined in his 2020 white paper.

- **Workload Metrics**—number of projects, events, or customers; costs
- **Engagement Metrics**—diversity of customers or innovators; number of participants, virtual participants, or partners
- **Output Metrics**—number of transitions of solutions, knowledge transfers, contracts awarded, reports released, or gaps addressed; time to transition; adoption rates
- **Outcome Metrics**—mission impact, costs saved, success stories, startups created

Brunelle admits, “I haven’t seen anybody that measures outcome really well. But I encourage you to think about whether your innovation metrics are currently aligned to your mission, particularly when you talk about that outcome metric.”

Brunelle has found that as innovation programs become more mature, they get better at measurement.

**CONCLUSION**

Innovation in the federal government requires a leadership commitment. Leaders must create the infrastructure for innovation—accepting risk, embracing failure, fostering a learning mindset and providing incentives.

Developing and implementing innovative ideas is not defined primarily by speed. True innovation in a complex environment can take time. But setting an end-state outcome; understanding the risk in changing the status quo; building a diverse team to challenge current thinking and bring new perspectives; and resourcing and measuring iterative benefits are all critical to building a culture of innovation and delivering new results.

**About the Author**

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