

GAO Highlights

Highlights of [GAO-17-14](#), a report to congressional committees

Why GAO Did This Study

To address the complex and crosscutting challenges facing the federal government, agencies need to effectively engage and collaborate with those in the private, nonprofit, and academic sectors, other levels of government, and citizens. Agencies are increasingly using open innovation strategies for these purposes.

The GPRA Modernization Act of 2010 (GPRAMA) requires federal agencies to identify strategies and resources they will use to achieve their goals. GPRAMA also requires GAO to periodically review how implementation of its requirements is affecting agency performance. This report identifies and illustrates practices that help agencies effectively implement open innovation strategies, and how the use of those strategies has affected agency performance and opportunities for citizen engagement.

To identify these practices, GAO analyzed relevant federal guidance and academic literature, and interviewed open innovation experts. To refine and illustrate the practices, GAO reviewed documents and interviewed officials from the Office of Management and Budget, Office of Science and Technology Policy, General Services Administration, and six selected federal agencies. GAO selected the agencies and a sample of their initiatives based on several factors, including the number and type of initiatives outlined in their Open Government Plans.

View [GAO-17-14](#). For more information, contact J. Christopher Mihm at (202) 512-6806 or mihmj@gao.gov.

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OPEN INNOVATION

Practices to Engage Citizens and Effectively Implement Federal Initiatives

What GAO Found

Open innovation involves using various tools and approaches to harness the ideas, expertise, and resources of those outside an organization to address an issue or achieve specific goals. GAO found that federal agencies have frequently used five open innovation strategies to collaborate with citizens and external stakeholders, and encourage their participation in agency initiatives.

Descriptions of Open Innovation Strategies Used by Federal Agencies

	Crowdsourcing and Citizen Science Agencies submit an open call for voluntary assistance from a large group of individuals to complete defined tasks. They can also encourage participants to assist with specific science-related tasks, which can include collecting and analyzing data, and interpreting and reporting results.
	Idea Generation (Ideation) Agencies ask participants to submit ideas to address a specific issue or problem, and may allow them to comment on ideas submitted by other participants, and vote to express their support for an idea.
	Open Data Collaboration Agencies mobilize participants to share, explore, and analyze publicly-available data sets, using the data to conduct research, design data visualizations, or create applications and websites that help people access and use the data.
	Open Dialogue Agencies collect and respond to information, observations, and perspectives from a range of citizens, experts and stakeholders.
	Prize Competition or Challenge Agencies identify a problem to solve or a specific goal to achieve, and ask participants to submit potential solutions. The agency evaluates these proposals, and provides a reward to selected winners.

Source: GAO analysis of agency open government plans and documents from OMB, OSTP, and GSA. | [GAO-17-14](#)

GAO identified seven practices that agencies can use to effectively implement initiatives that involve the use of these strategies:

- Select the strategy appropriate for the purpose of engaging the public and the agency's capabilities.
- Clearly define specific goals and performance measures for the initiative.
- Identify and engage external stakeholders and potential partners.
- Develop plans for implementing the initiative and recruiting participants.
- Engage participants and partners while implementing the initiative.
- Collect and assess relevant data and report results.
- Sustain communities of interested partners and participants.

Aspects of these practices are illustrated by the 15 open innovation initiatives GAO reviewed at six selected agencies: the Departments of Energy, Health and Human Services, Housing and Urban Development, and Transportation (DOT); the Environmental Protection Agency; and the National Aeronautics and Space Administration (NASA). For example:

- With the Asteroid Data Hunter challenge, NASA used a challenge and citizen science effort, beginning in 2014, to improve the accuracy of its asteroid detection program and develop an application for citizen scientists.
- Since 2009, DOT's Federal Highway Administration has used an ideation initiative called Every Day Counts to identify innovations to improve highway project delivery. Teams of federal, state, local, and industry experts then implement the ideas chosen through this process.