

Performance-Based Infrastructure: An Acceleration Agenda for the United States

Recommendations to the Build America Investment Initiative

Issue Brief

President Obama's Build America Investment Initiative has taken a number of critical steps to begin re-designing the U.S. infrastructure system. This has led to the creation of a new network of Federal Finance Centers implementing important federal principles for "outcomes-based predevelopment."

The Beeck Center for Social Impact + Innovation at Georgetown University—as part of its outcomes focused work—is releasing a new analysis outlining actions to extend the Administration's infrastructure performance initiative to the local, state, and regional levels. Moving to a performance model has the potential to have tremendous impact in communities across the country.

This issue brief summarizes the main recommendations to state and local leaders. Learn more at <http://beeckcenter.georgetown.edu/policy-innovation/>.

Background

According to the U.S. Congressional Budget Office, approximately three-quarters of U.S. infrastructure projects are funded at the local and state level. Most of these infrastructure projects are promoted by a single public agency (e.g., public university buildings, transportation projects, and water treatment plants). The winning bids are generally awarded to the lowest capital cost bidder with little attention to the life-cycle costs and operational risks of a project.

This means that an asset that should last for 30 years has little or no money for critical maintenance and upgrades. This is called a deferred maintenance. The Council of American Structural Engineers has shown that this lack of investment is fueling the nation's \$3 trillion **deferred maintenance gap**.

To address these persistent problems and boost infrastructure innovation, we need a transformational shift in how U.S. infrastructure projects are funded, maintained, procured, and permitted.

The U.S. infrastructure procurement system should be funding for better performance. As a start, this paper proposes starting with a new field of public sector innovation called *performance-based infrastructure* (PBI).

Performance-Based Infrastructure (PBI)

PBI uses methods and techniques to ensure that infrastructure projects create the appropriate incentives for life-cycle cost and risk management for investments in public works projects meant to last 30 or more years. PBI promotes better outcomes by reducing the nation's \$3 trillion backlog of deferred maintenance, encouraging the use of data, protecting public health and promoting innovative project delivery methods for a changing 21st-century infrastructure system.

Making the Shift to Performance-Based Infrastructure: Recommendations for State and Local Leaders

The Beek Center's new analysis features case studies and lessons learned from jurisdictions using performance-based infrastructure. This summary outlines policy recommendations for cities, states, and regions interested in accelerating the use of performance-based infrastructure.

1. Conduct an inventory of current tools and authorities to implement performance-based infrastructure.
2. Meet with city, county, state public finance experts and state treasurer's offices to accurately assess long-term funding needs and financing gaps.
3. Encourage local and state chief financial officers to fully implement Government Accountability Standard Board Guideline 34 as a critical step for cutting deferred maintenance and accurately measuring the asset value of public infrastructure.
4. Create a plan for cutting deferred maintenance and boosting enhanced infrastructure efficiency *before* focusing on the development of public-private partnerships (P3).
5. Require public sponsors of major infrastructure projects to do an *Infrastructure Risk & Resilience Assessment (IRRA)* for infrastructure projects to ensure that life-cycle project costs and risks are assessed for P3 investment potential.
6. Institute a *10-Year Infrastructure Investment Plan* to promote long-term integrated budgeting and train procurement specialists on designing for outcomes for future infrastructure purchases rather than simply funding popular projects every one to two years.
7. Provide training and predevelopment support to all public infrastructure project sponsors and government officials interested in using these life-cycle methods.
8. Pilot performance-based infrastructure procurement methods, such as requiring project bidders to include life-cycle business case analysis in preparing their bid.
9. Create a metro/regional infrastructure accelerator to anchor the shift to PBI best practices and promote integration and innovation across infrastructure types using data-driven tools.
10. Build transparent decision-making processes to encourage meaningful public participation; focus public attention on infrastructure maintenance, especially important given the public health disaster in Flint.

The Federal Role: Capacity Building and Standard Setting

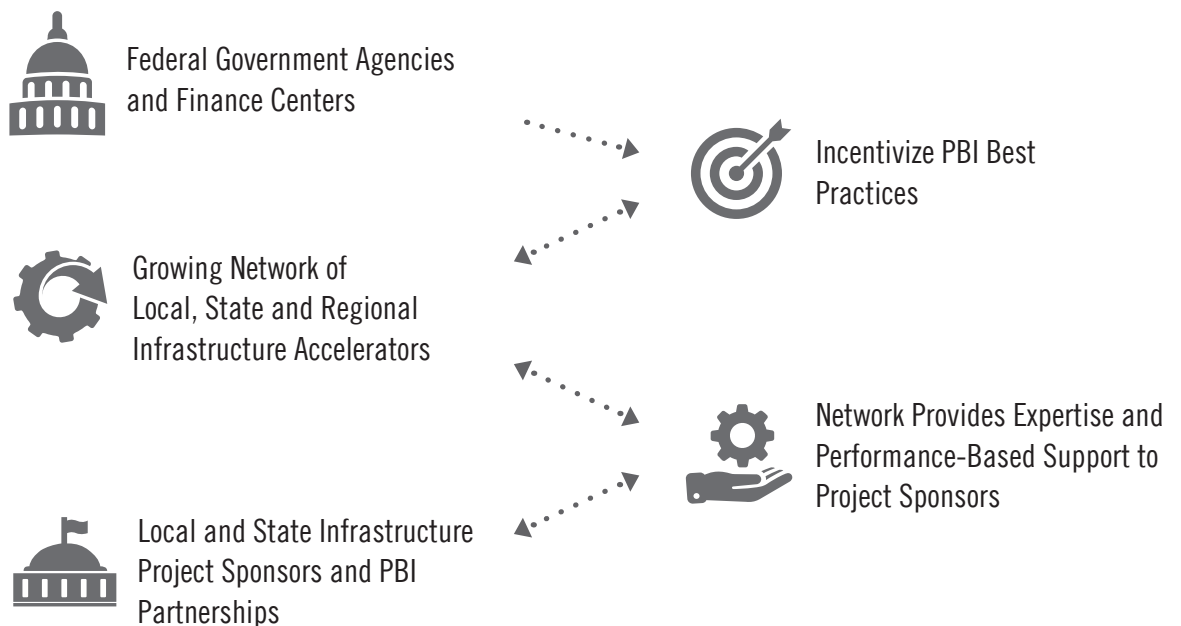
The U.S. infrastructure system is in the midst of profound transformation. The long-term effects of decades of deferred maintenance and local fiscal challenges are having a real impact on communities and the nation as a whole, from Flint's water crisis to the massive Porter Ranch methane leak to the closure of the Washington, DC's Metro system.

How can investments in public infrastructure yield the highest benefits to the public and deliver measurable performance?

To meet 21st-century challenges, needs, and opportunities—from big data, disruptive weather, and distributed electricity generation—the public sector needs to focus on better performance.

The federal government can take some important steps to support the shift to performance-based infrastructure by investing in state and local capacity to scale up best practices. To do that, the U.S. government should support the growing network of local, state, and regional accelerators who are accelerating the adoption of performance-based infrastructure tools and techniques. Another low-cost but high-impact Congressional move? Allow innovative states and cities to tap into a Federal Flex Fund for the start-up costs of innovative projects that don't fit into current funding schemes designed during the Eisenhower era.

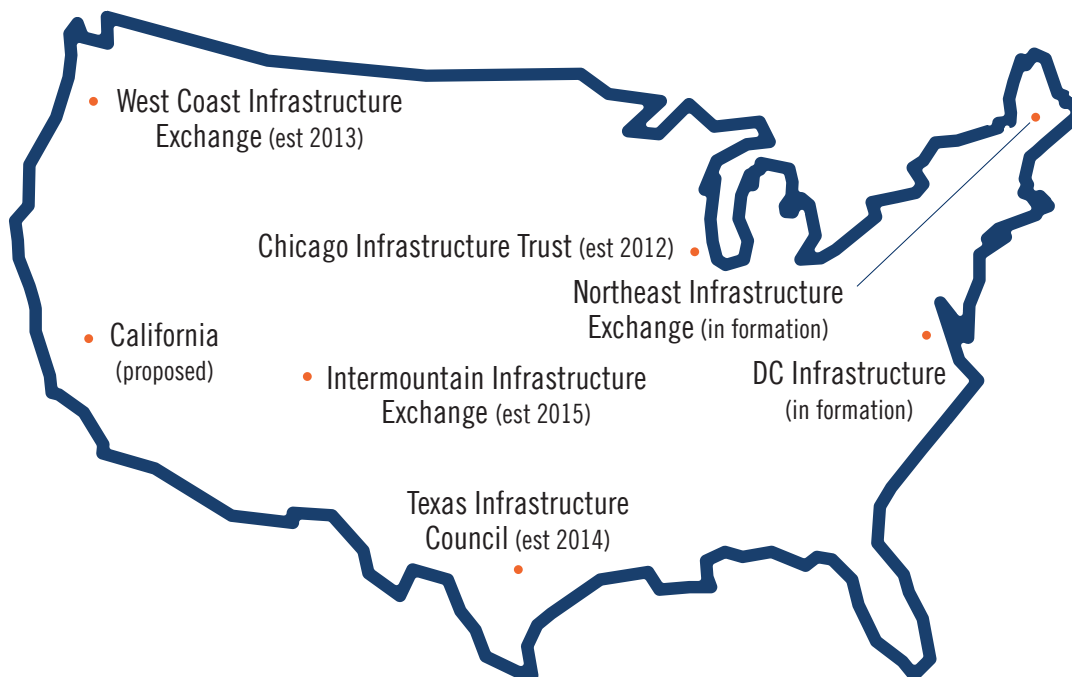
Future U.S. Infrastructure System



Infrastructure Accelerators in the U.S.

Canada, New Zealand and other countries have demonstrated the value of performance-based infrastructure (PBI). Using PBI, Canada has seen a \$100 billion infrastructure project explosion in the last decade. In its early adolescence in the United States, the infrastructure accelerator movement is beginning to serve as a critical resource for infrastructure development and planning—providing a unique opportunity to embed standards, budget reforms and other best practices for system-wide implementation.

In the United States there are currently six PBI-accelerators and more are likely to form under Section 1441 of the FAST (Fixing America's Surface Transportation) Act of 2015.



For more information

Chicago Infrastructure Trust:

Ldarling@chicagoinfrastructure.org

DC Infrastructure:

EMoneme@federalcitycouncil.org

Intermountain Infrastructure Exchange:

Donald.Hunt@ucdenver.edu

Northeast Infrastructure Exchange:

Tjanenda@northeastinfrastructure.org

Texas Infrastructure Council:

Tim@tx-infra.org

West Coast Infrastructure Exchange:

Jonathan.Trutt@westcoastx.org