Public-Private Partnerships and Performance-Based Infrastructure FAQs

1) What is a public-private partnership?
In the US, the term "P3" does not have an exact definition. In the infrastructure arena, it commonly refers to a major capital project that includes any combination of joint public and private sector participation in a project’s design, construction, financing, operations and/or maintenance. WCX seeks to foster and help advance public-private partnerships in infrastructure, regardless of their exact structure, when they

- Keep assets in public ownership and
- Deliver clear public benefits above those offered by traditional financing and procurement methods.

2) What is Performance-Based Infrastructure?
Performance-Based Infrastructure is one type of public-private partnership in which infrastructure remains in public ownership and the private sector assumes the risks associated with its design, construction, financing and long-term maintenance. Another common term for this model is Design-Build-Finance-Maintain (DBFM).

Key concepts in Performance-Based Infrastructure are

- Public ownership of assets
- Partnership between the public and private sectors to allocate design, construction, financing and long-term maintenance risks to the party best equipped to address them
- Evaluation of projects based on full life-cycle costs, not just the cost of construction and
- The creation of prevailing-wage construction jobs.

While many forms of public-private partnership can provide additional public benefits, Performance-Based Infrastructure is the most likely to maximize the value of private sector participation in public infrastructure projects. These FAQs consequently focus primarily, but not exclusively, on Performance-Based Infrastructure.

3) How does the procurement process for Performance-Based Infrastructure differ from traditional infrastructure procurement?
There are two major differences in procurement method.
First, requests for proposals for Performance-Based Infrastructure projects are framed in terms of a project’s performance requirements, not requests for the least cost to construct a predetermined set of plans. This encourages the private sector to bring its best innovation in design and construction to meet the owner’s needs.

Second, many of the risks of design, construction, financing, and long-term performance (capital maintenance costs) are transferred from the public owner to the private delivery team. The risk transfer occurs because the private sector brings financing that is at risk if it fails to perform at any point during a project’s lifecycle. This risk transfer aligns the public owner’s objective of an on-time, on-budget project that minimizes long-term costs of ownership with the private sector partner’s opportunity for gain and risk of loss. This alignment of the private sector’s incentives and the public owner’s goal is a key component of Performance-Based Infrastructure.

4) Can the Performance-Based model work with multiple infrastructure types?
Yes. Any infrastructure currently owned and maintained by the public sector could function as Performance-Based Infrastructure. Examples include, but are not limited to, roads, bridges, tunnels, drinking and waste water facilities, educational facilities and courthouses. See Question 8 below for further information on potential Performance-Based Infrastructure projects.
5) Doesn’t private sector financing cost more than publicly-issued bonds?

Yes. However, there are many reasons why private financing may ultimately be the best choice for a publicly-owned infrastructure project. A jurisdiction may lack the bonding capacity necessary to complete a project or wish to use its limited bonding capacity to finance other priorities. It may have a poor credit rating that undercuts or eliminates the interest rate advantages typically associated with tax-exempt debt. It may prefer to have a private lender accept the risks associated with construction and wait until a project is fully operational before issuing bonds. 

Over the full course of an infrastructure asset’s lifecycle, financing costs are just one component of the overall price tag. Performance-Based Infrastructure provides incentives for design, construction and technological innovations because it integrates design, construction, and maintenance responsibilities and aligns them with the private sector’s opportunity for gain and risk of loss. It also enables the public sector to transfer many of the risks of construction and maintenance cost overruns to the private sector. The value of these advantages frequently outweighs the cost of capital premium associated with private sector financing. (See Figure 1.) When private capital is only a portion of the total financing used for the project, rather than its sole financing source, Performance-Based Infrastructure’s ability to deliver additional public benefit increases. The hospital referenced in Question 10 blended public and private capital.

6) How and when is the private sector paid in the Performance-Based Infrastructure model?

The answers to these questions are ultimately determined on a project by project basis. Generally speaking, once the infrastructure is successfully constructed, the public sector begins a series of annual payments to its private sector partners. Depending on the type of infrastructure, these payments can be based on revenues from the project (e.g. tolls or monthly water bills) or fixed amounts from tax revenues determined during contract negotiations. In either case, the public sector receives partial or full relief from its obligation to pay if the infrastructure does not achieve pre-determined, mutually agreed-upon performance benchmarks.

In addition to annual payments tied to performance benchmarks, some Performance-Based Infrastructure projects include a “completion payment” to the private sector when the asset is placed in service. Completion payments reduce total project costs by lowering the amount of private debt serviced by a Performance-Based Infrastructure project.
7) Is Performance-Based Infrastructure a proven model?

Yes. Canada has an extensive track record with Performance-Based Infrastructure and, in 2013, the Conference Board of Canada released a comprehensive review of Canadian Performance-Based Infrastructure projects. The results were strong. The Conference Board reviewed 42 projects and found that, when compared to traditional procurement methods, the Performance-Based Infrastructure approach produced $9.9 billion in overall project cost savings. Of the 42 projects reviewed by the Conference Board, 83% were completed on time or early, and 90% were delivered within four months of their due date. Only two projects were more than six months late.

British Columbia is the Canadian province with longest history of Performance-Based Infrastructure efforts: 45 projects totaling $17 billion in total financing (over $7 billion from the private sector) since 2002. All 45 projects have been delivered on or before their due date. None have had price increases stemming from design or construction mistakes.

8) What is the potential for Performance-Based Infrastructure in the US?

An estimated 20% of US infrastructure is well-suited to the performance-based approach. The right procurement method for any given project has to be determined through a rigorous and disciplined business case analysis.

Performance-Based Infrastructure likely brings highest value to the public owner for projects that are of scale (more than $50 million of capital costs), complex, offer opportunities for innovation in design and construction, and have significant risks in design, construction and/or operations that the public sector seeks to transfer to a private party. For these projects, the Performance-Based Infrastructure approach invites private sector innovation and links the private sector’s financial reward to the long-term performance committed to in its bid. This linkage allows the public sector to take advantage of innovation without accepting the attendant risks.

9) What additional value can the public sector expect to see from Performance-Based Infrastructure?

The key benefits of Performance-Based infrastructure are full-life cycle cost certainty (i.e. not just the cost of construction) and the transfer of risk to the private sector. When the Performance-Based Infrastructure approach is of benefit, the net higher value for the public owner falls within in a wide range because of the individual characteristics of each project. Canada’s experience is that the range is 5 – 25%, with an average additional value of about 13 – 15%.

10) What is an example of private sector innovation created by the Performance-Based Infrastructure model?

One example is the Interior Heart and Surgical Centre hospital project in British Columbia. In hospitals, because adjacency of services on the same floor can result in significant cost-savings, the desired plan was a three-story building. However, the project had to be located on a site with challenging soil conditions. Prior to involving the private sector in the project’s design, construction, financing and maintenance, consulting engineers recommended a traditional method of building on pilings, which required a year delay and a four-story building.

The winning private sector team proposed an innovative foundation system that essentially floated the building on a concrete raft. This innovation facilitated the construction of a three-story building that was 15% less expensive to build, available a year sooner, and significantly less expensive to operate. The project was completed successfully, and the private team stands behind its continued performance through a long-term maintenance agreement.