

## OVERVIEW

A public-private partnership (PPP or P3) is a contract between a public sector entity and a private sector entity that outlines the provision of assets and the delivery of services. Although this can include almost any type of infrastructure or service, some of the more common P3 projects include hospitals, bridges, highways, new types of technology and new government buildings.

Across Canada, P3s have become an increasingly prominent procurement vehicle for governments. Since the early 1990s, approximately 100 P3 transactions have been completed. This growth is largely attributed to government initiatives that develop specialized agencies to handle P3 procurements. In British Columbia, Partnerships BC is a company owned by the Province and created to bring together ministries, agencies and the private sector to develop public infrastructure projects such as highways, hospitals and bridges. It facilitates and, in some cases, manages partnerships on behalf of public sector agencies.

## P3 FEATURES

A P3 arrangement presents an alternative to conventional procurement practices that build or maintain public infrastructure. The main differences between P3 projects and conventional projects can be explained using the following key terms:

### Project phases

Under a P3 project, procurement of two or more of the project phases are integrated. These project phases range from design and construction to operation and maintenance. Often a consortium of companies with different areas of expertise relating to the various phases is organized. This consortium works within itself to determine how to complete the project.

Conventionally, each phase of the project is procured separately. In some phases (such as construction or operation) multiple contracts pertaining to that phase may be awarded. Contracts are awarded in

stages: companies bid on the design; once the design is completed, a contract is awarded for construction; once construction is completed, an operations contract is awarded; and so on.

### Type of contract

P3 contracts have outcome-based specifications, meaning that the public sector owner specifies their requirements and the private sector partner determines the best way to meet them. Conventional contracts are output-based, where the public sector owner specifies the exact outputs required through detailed specifications.

### Timing of payments

In a P3, the payment structure is normally such that payments are made upon completion of a specific activity or milestone. For instance, payment for the design and construction of an asset would begin upon completion of the construction. If there is an operations and/or maintenance phase, payments begin only once the construction has been completed and the operations or maintenance phases have begun.

In a conventional contract, monthly payments are advanced to the contractors based on the percentage of work completed. For capital construction projects, the majority of the contract is advanced through monthly payments and a holdback for the remainder is released upon completion of the project.

### Type of financing

Typically in a P3, the consortium would be responsible for securing its own financing. Under this arrangement, the consortium finances the upfront capital costs, then recovers its investment over the term of the P3 agreement. Although financing can be part of a P3, it is not a necessity: models such as Design Build (see description below) are still financed by the public sector. When private financing is a part of the P3 agreement, it is normally in the form of project-specific equity and debt. The proceeds from the public partner at the project's completion are used to repay the equity financing.

With a conventional project, private financing is limited, so the project is often financed directly by government through capital contributions or debt.

## Stewardship

Under most P3 agreements, overall control of project execution is transferred to the private sector while completion of project milestones is assessed by an independent certifier. Although the public sector owner allows the private sector participants greater control and freedom to manage the project, the public sector retains ultimate ownership of the asset.

With a conventional project, overall control of project execution remains with either the public sector or a contract management firm hired by the public sector.

## RISK ALLOCATION BETWEEN PUBLIC AND PRIVATE PARTNERS

Perhaps the key distinction between P3 procurement methods and the conventional approach relates to the allocation of risk. Traditionally, most of the risks associated with government projects were assumed by the public sector entity. By contrast, P3 arrangements aim to distribute the financial, technical and operational risk optimally between both the private and public sector partners. Specifically, these risks include the following:

**Design risk** – the risk that the design of an infrastructure asset will have a negative impact on construction or future operations.

**Construction risk** – issues that may be encountered during the construction phase of a project, such as cost overruns, building material defects, construction delays, planning regulations, structural integrity issues with existing infrastructure, technical deficiencies, health risks and worksite accidents.

**Availability risk** – the risk that the infrastructure will not provide sufficient services because of management issues, failure to meet the required quality or asset availability standards, etc.

**Demand risk** – the possibility of a discrepancy between initial expectations and the amount of service actually required or consumed by the infrastructure users – the public sector entity itself, third-party users such as citizens, or both.

**Operational and maintenance risk** – post-construction risks that occur when the infrastructure or public facility becomes operational, for example: increases or shortages of materials, increases in labour costs, damage as a result of natural disasters, costs related to deferring maintenance, and obsolescence.

**Residual value risk** – the difference between the market price of the infrastructure at the end of the P3 arrangement and the original market price expectation.

**Financing risk** – the risk that the required funding for the project will not be obtained, or will be obtained but at interest rates that prevent the project from achieving its expected benefits.

## CLASSIFICATION OF PUBLIC-PRIVATE PARTNERSHIPS<sup>1</sup>

In keeping the above characteristics as a basic framework, several types of P3 arrangements have been developed. These are usually distinguished by the extent of private sector involvement in the major phases of the project. Generally, as private sector involvement increases, so does the assumption of project risk and responsibility. These arrangements can be categorized under the following 10 groups, ranging from no private involvement (category one) to total privatization (category 10):

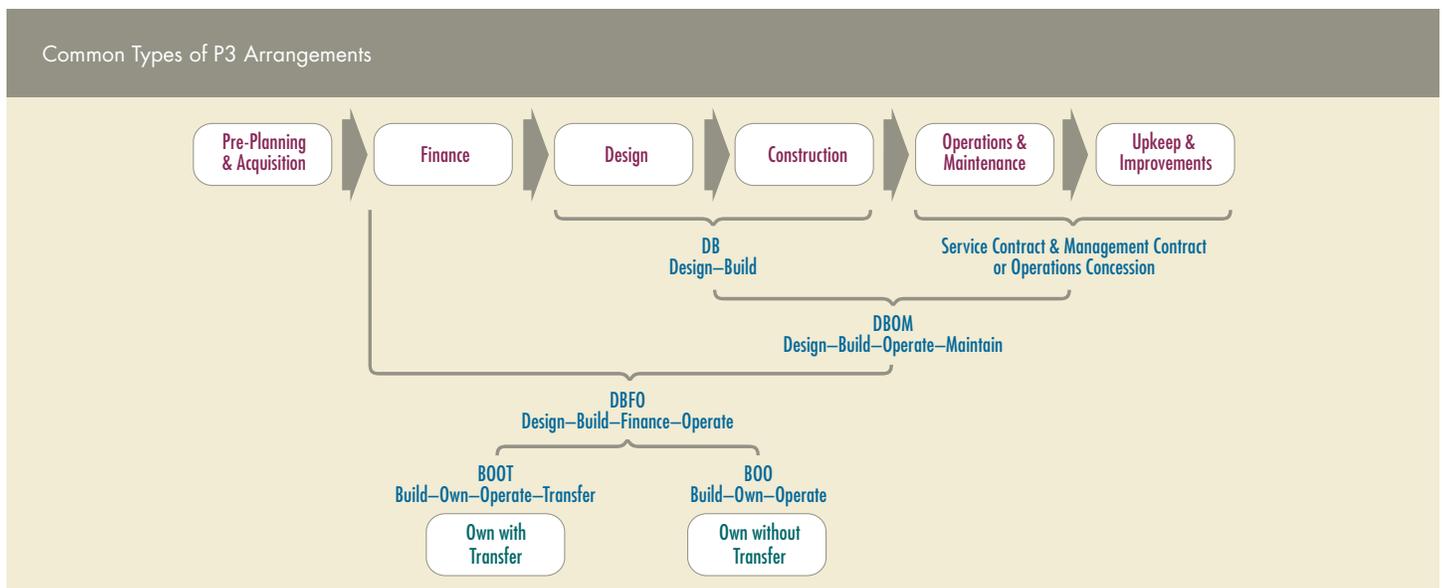
1. **Government:** The public sector entity assumes responsibility for all aspects of the program.
2. **Service Contract:** The public sector entity contracts out to the private sector entity those services it would otherwise have performed. Typically, the private sector entity performs the services in accordance with requirements set by the public sector entity.
3. **Management Contract:** A management contract builds on a service contract by placing management responsibilities for the service with the private sector entity. Service and management contracts are typically short term and renewable only under certain conditions, and risk and responsibility for delivery of the service largely remain with the public service entity (e.g., waste collection).

<sup>1</sup> The classification model was based on the IPSASB Consultation Paper, "Accounting and Financial Reporting for Service Concession Arrangements" (March 2008).

# UNDERSTANDING PUBLIC PRIVATE PARTNERSHIPS

4. **Design Build Arrangement (DB):** The private sector entity usually assumes the construction risk and is responsible for design and construction according to the public sector entity's requirements. Upon construction completion, the public sector entity is responsible for operating and maintaining the infrastructure, leaving the private sector entity with little or no residual project risk.
5. **Operations Concession Arrangement:** The private sector entity is granted the right and assumes an obligation to provide services to the public through the use of an existing infrastructure asset or public facility. This arrangement typically applies to existing infrastructure or public facilities that do not require significant construction. In many of these arrangements, the public sector entity will receive an upfront inflow of resources from the private sector entity in exchange for the right to access the existing infrastructure or public facility and collect fees for its use from third parties. In other arrangements of this type, the public sector entity will make payments to the private sector entity, generally as performance criteria are met. Frequently, these contracts are longer in term than service or management contracts and allow the private sector entity an opportunity to earn an acceptable rate of return on its investment.
6. **Design-Build-Operate-Maintain (DBOM):** The features of a Design Build Arrangement are combined with those of an Operations Concession Arrangement. The private sector entity accepts construction risk in addition to operation and maintenance risks.
7. **Design-Build-Finance-Operate (DBFO):** When the project involves construction or significant renovation, the private sector entity designs and builds the infrastructure, finances the construction costs, provides associate services through a long-term concession arrangement and typically returns the infrastructure to the public sector entity at the end of the arrangement. Essentially, financing risk is added to the risks allocated to the private sector entity in this arrangement.
8. **Build-Own-Operate-Transfer (BOOT):** The private sector entity owns the constructed infrastructure until the end of the arrangement and then transfers that ownership to the public sector entity. Thus, the private sector assumes the risks and responsibilities related to property ownership that extend beyond those allocated under a DBFO scheme.
9. **Build-Own-Operate (BOO):** The private sector entity assumes an even greater degree of risk and responsibility by maintaining ownership of the infrastructure upon its completion.
10. **Privatization:** Infrastructure is transferred to a private sector entity (normally through a sale). The private sector entity assumes maximum risk and responsibility, while the public sector disassociates itself from responsibility for the property and the related services.

This chart illustrates the major phases of an infrastructure project and the common types of P3 arrangements that may be used to carry them out.<sup>2</sup>



2. Extracted from the IPSASB Consultation Paper, "Accounting and Financial Reporting for Service Concession Arrangements" (March 2008), which was adapted from AECOM Consult, Inc. 2007 "Case Studies of Transportation Public-Private Partnerships around the World" (2007, p. 2.7), prepared for the U.S. Department of Transportation Federal Highway Administration Office of Policy and Governmental Affairs, Arlington, VA.

## P3s: A COST-BENEFIT ANALYSIS FOR THE PUBLIC SECTOR

A P3 arrangement offers such benefits as potential cost savings, quality enhancements to the design or construction of a new facility and efficiencies to service deliveries. Attaining “value for money” commonly describes the successful achievement of these benefits. Generally, the potential value sought by a public sector entity is monetary in nature and is achieved by controlling or reducing costs or receiving an upfront inflow of resources. Alternatively, the value may include an improved ability to deliver new or renovated infrastructure, improved quality of construction, or improved service efficiency.

Ideally, the structure of P3 procurements provides private sector contractors with strong incentives to deliver the infrastructure outcomes valued by the public sector owner. The features described above – including optimal risk allocation, integration, private financing and performance-based contracts – are considered the drivers of efficiency gains in P3 arrangements.

Implementation of the efficiency drivers, however, will not necessarily guarantee that all P3 infrastructure projects will generate net efficiency gains. In some cases, the efficiency gains can be more than offset by a combination of several costs:

- 1. Costs of transferring selected risks to the private sector:**  
Also known as the risk premium, this is used to compensate the private partner for assuming risks additional to those associated with a conventional contract. The risk premium usually represents the largest part of the additional costs involved in P3 value-for-money analysis.
- 2. Higher financing costs:** Private financing used for P3 projects is more expensive than the public financing (e.g., government bonds) used for conventional procurements.
- 3. Higher transaction costs:** A P3 contract costs more to develop and monitor than a conventional infrastructure contract does.

If these three categories are offset by the cost savings from transferring selected risks to the private partner, the overall costs of the project will be lower under the P3 approach. In most jurisdictions, including British Columbia, potential P3 projects require a value-for-money assessment to ensure that a P3 procurement option delivers value relative to a conventional procurement process. An evaluation is done before the start of the procurement process and the test is finalized after the financial close. The value-for-money assessments are designed to ensure that appropriate projects are selected as P3s and the risk transfer is cost-effective to the public sector owner.

Partnerships BC encourages the preparation and public release of a project value-for-money report for all P3 projects entered into by the Province.

## CONCLUSION

A public-private partnership is a method of transferring some or all of the risks of executing a project to the private sector. Various levels of involvement between the public and private sectors may be set up, so several P3 vehicles have been developed to integrate two or more of the major project phases (design, construction, operation, maintenance) into one project that is normally executed by a consortium of private companies.

Projects completed under P3 arrangements offer potential overall cost savings, design and construction quality enhancements, and service delivery efficiencies. At the same time, there are a number of risks associated with utilizing a P3 arrangement. Detailed analysis must therefore be performed at the beginning and end of the project to ensure that the efficiencies sought with a P3 are met.