

# Partnering to renew public infrastructure

by William D. Eggers, Saad Rafi and Ben Sorensen

**T**HE EVIDENCE IS everywhere: Canada's publicly owned infrastructure – roads and bridges, transit systems, hospitals, universities, schools, water and waste treatment facilities, cultural and recreational facilities – need rehabilitation and/or new construction, placing great demands on federal, provincial, and municipal governments. While estimates of the total tab vary, some experts predict it may take more than \$120 billion to meet the requirements.

The building boom of 1950s and '60s – including Canada's first subway system, the completion of the St. Lawrence Seaway; the construction of highways, hospitals, and higher education institutions – was followed by a period of relative neglect in the 1980s and '90s, resulting in a backlog of poorly maintained infrastructure, some of it in dire need of repair or replacement. Governments cannot ignore the social costs of crumbling infrastructure, which range from lower productivity and reduced competitiveness to higher accident rates.

Although individual circumstances will shape the approach in each province, most provincial and federal government agencies currently lack the capital needed and must look beyond traditional financing and delivery mechanisms to take advantage of new partnership models. Public-private partnerships (PPPs or P3s) and alternative financing arrangements offer one such solution (see figure 1).

Many Canadian jurisdictions aggressively utilized and implemented innovative partnerships to close the infrastructure funding gap, adapting some of the lessons learned by

## Key questions in choosing the right delivery model

- How confident are you now about the type of infrastructure and services that are needed over the next 5, 10, 15, 20 years?
- How likely is it that the needs of citizens in this area will change?
- How likely is significant policy change?
- How easy is it to specify what we will need?
- In which sector is the P3 approach going to be employed?
- When could advances in technology make these assets obsolete?

other governments worldwide. For example, Quebec introduced PPP Québec in 2005 to help public bodies evaluate the feasibility of P3 projects. By providing expert services and advice, PPP Québec assists with the procurement, negotiation, and conclusion of partnership contracts that support major infrastructure projects in areas such as transportation, health care, and culture.

Three strategies in particular stand out for successful development and execution of P3s: adopting a lifecycle approach, determining the best partnership structure and allocating risk appropriately to the public and private sector.

## A lifecycle perspective

The best way to assess project certainties and ensure a successful partnership is to adopt a lifecycle approach that takes all phases of the project into account.

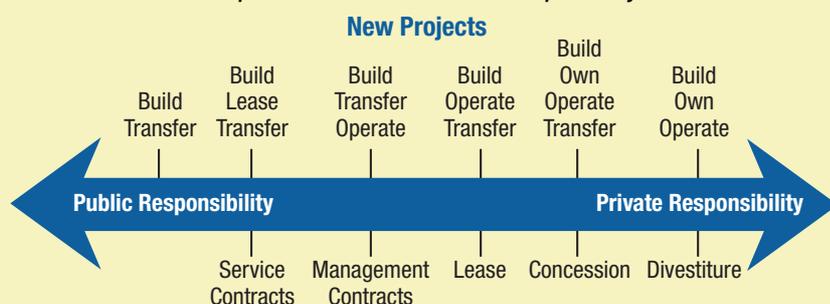
'Need' is a clear framework for partnerships that confers adequate attention to all phases of a project – from the policy and planning through post-construction (see figure 2). Too often governments focus too narrowly on the transaction. Lay the groundwork for long-term success by establishing a solid framework for P3s and effective gov-

ernance of the project once up and running. Focusing on the project's entire lifecycle helps avoid showstopper problems – everything from a poor P3 framework and lack of clear outcomes to inadequate government capacity to manage the process, among others. Adhering to the elements of the lifecycle model provides a solid foundation for effective planning, transaction success, and a mutually beneficial relationship.

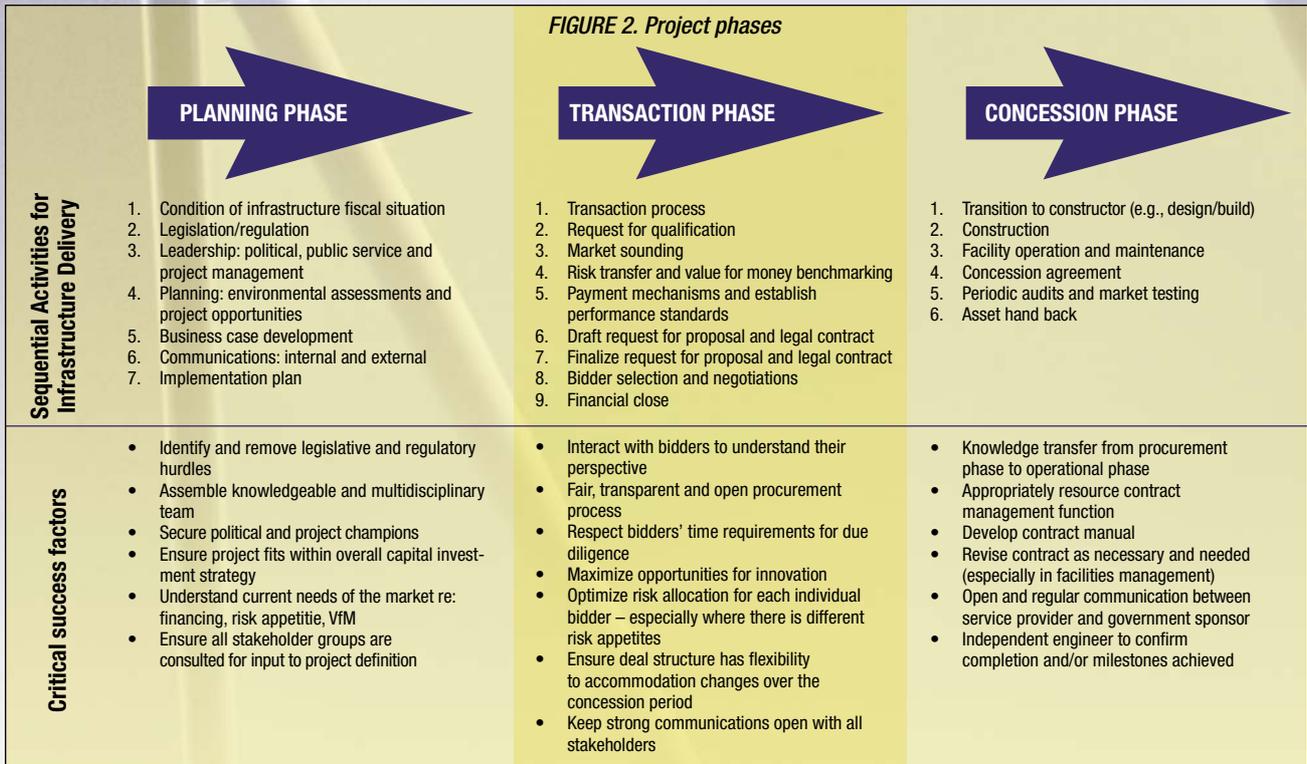
The key initial steps in the lifecycle are:

1. *Assess the condition of existing infrastructure.* This helps determine the highest priority development needs and, classification by either project or sector.
2. *Consider alternative delivery options.* Each project comes with a unique set of circumstances. To achieve the right balance between risk, cost, and outcome certainty, jurisdictions should consider the full range of available delivery options.
3. *Invest in the need for business transformation.* Partnerships are complex, transformative projects that can affect several areas of a jurisdiction's responsibilities. Undertaking these projects with an objective of undertaking significant change will aid in project success; reduce procurement cycle time; establish repeatable processes; and, aid in developing the appropriate skills among staff.
4. *Assess the necessary skill shift required by staff.* Innovative partnerships require non-traditional skill sets typically not found in government; and needed skill sets should be identified as part of the planning stage of the infrastructure lifecycle. Existing skill sets can be harnessed and directed towards these types of projects, and can be bolstered by advisory services. Encourage networking with other jurisdictions to learn from their experiences.

FIGURE 1. Spectrum of Alternative Partnership Delivery Models



Source: The National Council for Public Private Partnerships



By applying a lifecycle approach to the development of a partnership structure, a public sponsor can focus on its needs, the project, and the market in structuring the project and achieve several advantages:

- Business cases submitted for capital approvals will be developed with additional rigour.
- Capital approval processes may be streamlined to accommodate a prescribed structure for analyzing partnership options.
- Procurement processes will become more effective as transactions will be clearly structured and communicated.
- Partnerships will be tailored more appropriately, yielding more successful projects.
- Gaps in the ability to deliver different partnership structures, on the part of the sponsor or the commercial environment, will be identified allowing the development of strategies to address these gaps.

### Picking the right model

Standard templates don't work in a number of different situations and sectors – also true for P3 infrastructure development.

For many projects, the typical P3 model – entailing some variation of design, build, finance, maintain and operate – has served governments well, providing strong incentives for delivering projects on time and to budget, while enabling the public sector to

spread the cost of the investment over a 30 year (for example) period. It encourages a focus on value for money over the lifetime of the asset. It is well suited for many large infrastructure projects with well-defined specifications in conditions of relative certainty. While still in relative infancy, the model's track record demonstrates significant merit. Realizing the benefits from the transferred risks will be the true test of whether value for money was achieved on projects.

However, the typical model also has some serious limitations: the procurement process is often long and costly; the length of the contracts and relative uncertainty over costs pressures both parties to negotiate a contract that is acceptable in the long term; and it's relatively rigid: changing service requirements at a later stage often comes with a significant price tag.

Recognition of these shortcomings has fuelled the need for more customized innovative delivery models. The respective roles of the public and private sector in the projects are becoming less black and white. Between conventional procurement and full privatization, a wide range of financing options and risk transfer exists. A full understanding of these different types of models – and knowing how and when to use them – can help government agencies tailor an approach to best meet their particular needs.

Ottawa's Montfort Hospital, for example,

recently developed a value-for-money benchmark in support of a \$200 million expansion. As part of its financial assessment, the hospital identified alternative financing sources, including government, local share, and third-party funding. It also arranged a bridge loan with a commercial bank on very favorable terms. Overall, this allowed the Ontario government to realize better value for money than from traditional methods of project development and financing.

Some of the questions governments need to ask are: What are my alternatives in terms involving the private sector? How do I decide what role the private sector should play? What might the resulting deal structure look like? Are my alternatives different if I have an existing asset versus a greenfield project?

When deciding on an appropriate model, it's vital to consider how certain the public sector can be about its infrastructure and service requirements. Certainty is crucial; without it, it's difficult to achieve a fair price on contracts, or to ensure that the infrastructure will continue to meet needs in the future (see figure 3). Uncertainties might be present as a result of: latent defects (flaws in the infrastructure that are not apparent until work commences), policy changes (which imply a change in service requirements), demand risks (resulting from the introduction of user choice, for example), changes in public needs, or rapid changes in technology.



in cooperation with  
the **EcoLogo<sup>®</sup>** program

# 2008 Leadership in Green Procurement Award

*Create your  
own web of  
expertise*

Submissions in June,  
award presentation  
in October

Nomination forms available @  
[www.summitconnects.com](http://www.summitconnects.com)

For projects especially vulnerable to these uncertainties, models with increased flexibility and shorter contract periods can improve the likelihood of achieving infrastructure objectives.

## Risks and responsibilities

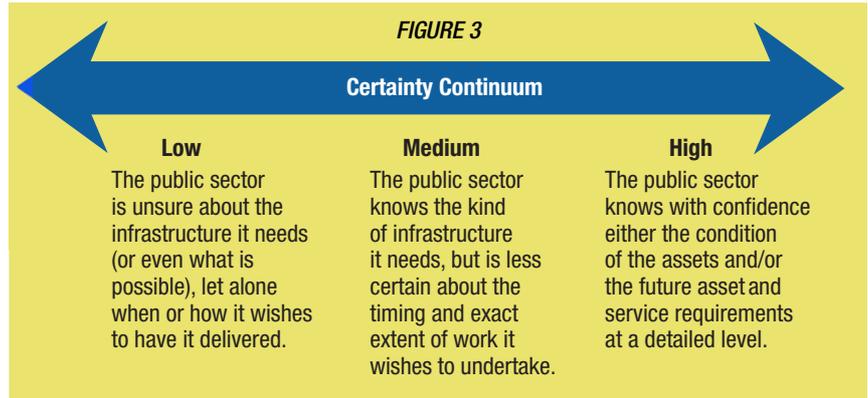
Another important step in determining the most appropriate mix of public and private responsibilities in a P3 is to allocate the risks to the party – public sponsor or private partner – best able to manage them. The Ontario government, for example, entered an innovative partnership to build the Archives of Ontario main public service facility. By transferring the risks of designing, building, financing, and maintaining the facility to the private sector, the province was able to build a state-of-the-art facility for its most significant archival records, while using an alternative financing approach to bridge its infrastructure gap.

Each infrastructure project will have its own specific risks. Identifying, prioritizing, and allocating these risks for the identification of different partnership alternatives can be a cumbersome and costly exercise. It can be simplified by assigning responsibility for

may not adhere to the design specifications; and latent defects may be discovered later.

**Financing.** Here we mean the financing of the capital costs of construction – although financing of other components like working capital are also important – which, may be provided by the public sponsor or the private partner. The financial capital provided by the public sponsor is widely accepted to be at a lower cost than that provided by the private partner. The relative cost difference, however, depends upon the project under consideration, the type of capital to be employed, the competitiveness of the procurement process, and the financial wherewithal of the private partner.

**Operation.** Typically beginning at the end of construction upon agreement that the construction has been satisfactory, this may range from general management of the provision of services to revenue collection and soft services associated with an asset, such as laundry services within a hospital. Associated risks are performance risk (the asset may not meet the performance standards required by the public sponsor) and commercial risk (revenues may not be realized by the project).



six high-level components, along with considering their associated risks:

**Design.** Responsibility for design will usually be shared. However, this component is generally allocated to the party responsible for the *majority* of the design. The associated risk is that the facility may not be designed to meet the performance requirements of the public sponsor.

**Construction.** This refers to the building of the physical assets over a prescribed time period and generally at a prescribed cost. Some associated risks are: the construction cost of may be higher; the timelines longer than originally planned; the construction

**Maintenance.** Two types of maintenance must be considered in any infrastructure project: ongoing regular maintenance (operating maintenance) and major refurbishment (lifecycle maintenance or capital maintenance). The associated lifecycle maintenance risk is that capital upkeep may not be performed over the life of the asset. *www*

*William D. Eggers is the Global Director-Public Sector for Deloitte. Saad Rafi is the National Leader for Infrastructure Advisory & Project Finance for Deloitte Canada. Ben Sorensen is the Managing Director of The Procurement Exchange, which is focused on enabling innovation for public sector procurement.*