CROSSROADS

Building Blocks

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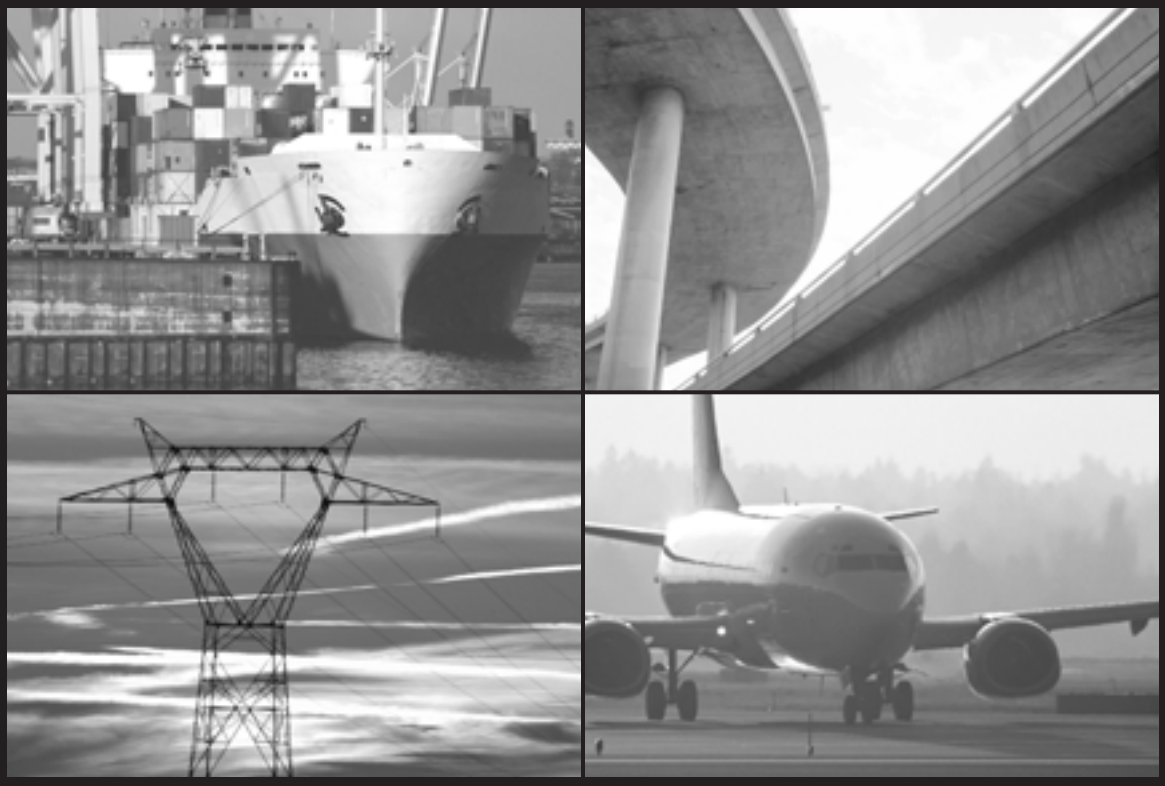


A joint publication on Infrastructure Renewal and Procurement in Canada

KPMG

Goodmans

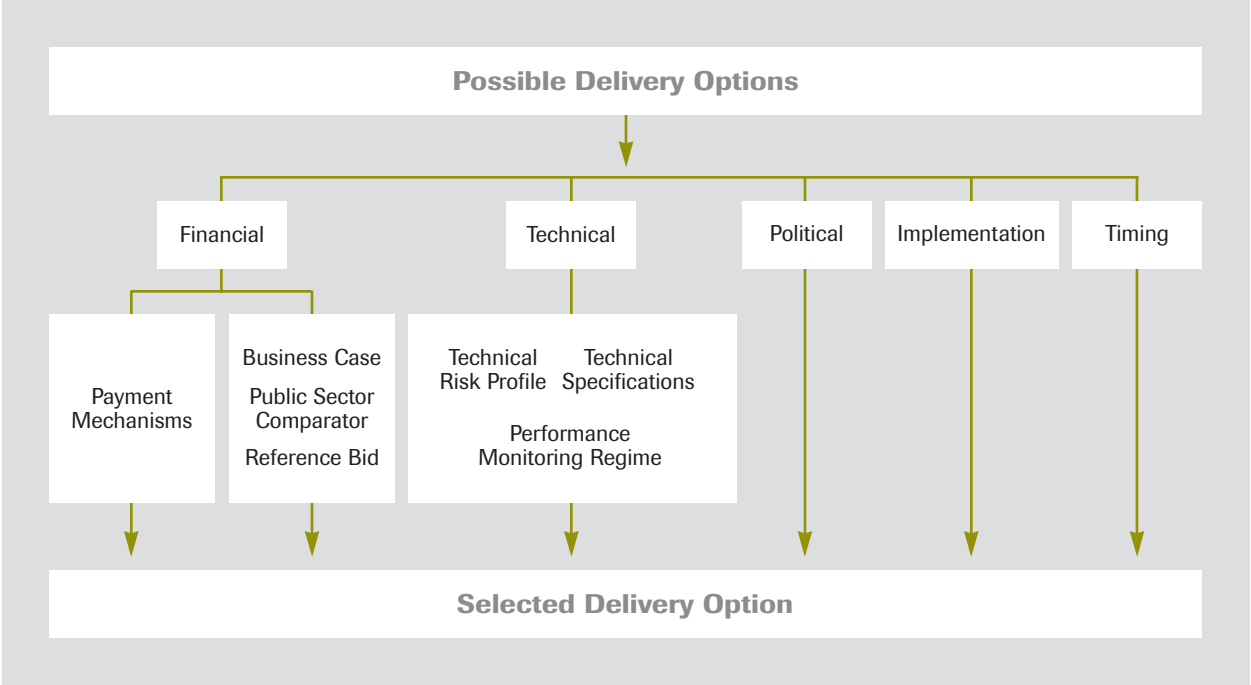
Introduction

Goodmans and KPMG, two leading firms that provide infrastructure renewal and procurement services in Canada, have joined forces to provide you with *Crossroads* – a regular publication designed to provide practical articles on current trends and developments in these areas.

In the first issue of *Crossroads,* we discussed the various delivery options available to achieve infrastructure renewal. In this second issue, we discuss the criteria to determine the best delivery option to be utilized for any given infrastructure project.

Selecting the Delivery Option

There are several steps involved in the determination of the optimum delivery and implementation options for any public infrastructure project. However, while the range of delivery options is quite broad, (as described in the first issue of *Crossroads*), the type of infrastructure that is being developed, the identity and policy flexibility of the sponsors of the infrastructure development, and high-level political considerations and objectives, all tend to narrow the range of delivery options meriting close examination to a very manageable size. A summary of the delivery model "decision tree" appears below.



The first step in selecting the most appropriate delivery option is generally the development of a high-level business case that identifies the available delivery options, the criteria relevant to the assessment of those options, and a preferred delivery option or range of options. The option that is ultimately selected will be refined as the project moves towards implementation.

The assessment of the relative advantages and disadvantages of the delivery options available for any given infrastructure project involves the analysis of the relevant financial, technical, political, implementation and timing considerations applicable to the project. A critical examination of these considerations in specific project contexts is of the utmost importance in making the strategic decisions required to achieve the successful implementation of the project. Getting the business case right and selecting the most advantageous delivery or implementation option is perhaps the most critical part of the total project cycle as it shapes many of the significant decisions that will be made as project implementation proceeds and largely determines the ultimate success or failure of the project.

Financial Considerations

The selection of the most favourable delivery model hinges on an assessment of whether a project is financially viable under that model. In this regard, the payment mechanism used to compensate the developer and operator of the public infrastructure must be evaluated. To the extent private finance is involved, investors and creditors in a project will need to be satisfied that their investment or loan is adequately secured and that they will earn a reasonable rate of return on their investment, taking into account relevant risks. The careful consideration of the concerns and issues relevant to investors and creditors in the selection and detailed design of the delivery model for any given project will serve to enhance the value for money that a project will deliver.

Payment Mechanisms

There are a number of payment mechanisms that have been employed in public infrastructure projects. These include third-party revenue from users of the infrastructure or payments by government in cash or in kind to the developer and operator of the infrastructure. Combinations of third-party revenue and payments by government are possible, and where there are multiple public and private sector stakeholders in an infrastructure project, payment mechanisms can increase in complexity.

Where third-party revenue is being relied upon, it is typical that charges placed on end-users are regulated, either contractually through project agreements, or in certain cases (especially where the term over which the developer is eligible to earn third-party revenue is fairly long), through an independent regulator.

Where the delivery model contemplates government payments, it is typical for these payments to be made according to a defined formula. This formula is usually based on amounts bid by the developer during the competitive procurement process. The formula can be designed to achieve a number of objectives. For example, in order to pass construction risk on to the developer, payment may be deferred until construction completion. Ongoing performance by the developer in the operation of the infrastructure can be encouraged through a penalty and bonus regime that creates appropriate commercial incentives.

Three Approaches

In addressing financial considerations, there are typically three approaches used, each appropriate at a different time and serving a different purpose:

- Business Case;
- Public Sector Comparator; and
- Reference Bid.

First, as set out above, a business case is developed to establish which delivery model or models would be appropriate to implement any given infrastructure project. Second, a public sector comparator is created to determine whether bids received during the competitive process to select the developer of the infrastructure demonstrate value for money, as compared to a default delivery model, being the delivery model the government would have pursued had it not opted for the selected delivery alternative. In most circumstances, the default delivery model tends to be design-bid-build. Third, a reference bid is established to test whether bids received during the procurement process are competitive as compared to a pre-determined "in-house" estimate of likely pricing. The reference bid is used as an aid in assessing whether there has been any market or process failure that resulted in sub-optimal bidding.

In other words, the public sector comparator establishes the pricing that bidders should beat to justify proceeding with a delivery model other than design-bid-build, and demonstrates (to the extent that bidders do beat that pricing), the extent of value for money achieved through that alternative delivery model. The reference bid can be used prior to going to market to test which refinements to the model are likely to achieve specific outcomes in terms of pricing. The reference bid could therefore be used as a forecasting tool in delivery model assessment. In practice, however, it is the business case that determines the delivery model or models to be considered, while the public sector comparator and reference bid are developed only once the decision to proceed in a certain manner has already been made.

Technical Considerations

Three key technical considerations in selecting among delivery models are:

- Technical Risk;
- Technical Specifications; and
- Performance Monitoring.

While technical considerations apply to both the development of the infrastructure and its subsequent operation, the discussion below focuses on development only. If, upon assessment of the relevant technical considerations no delivery model appears to be feasible, then revisions to project parameters should be considered prior to outright project abandonment.

Technical Risk Profile

There are a number of technical risks inherent in infrastructure projects which generally relate to completion risk. Completion risk is the risk that the infrastructure will not be designed and constructed in time, at the specified cost or to the required specifications. Time and cost issues can, at least in principle, be addressed by extending the time allowed for completion and by revising cost expectations as appropriate. However, the necessity for such concessions may demonstrate either that the project cannot be completed at an acceptable cost or in time for its intended use. If it is determined that the project cannot be completed at an acceptable

cost, this could lead to the search for more cost-effective solutions or the establishment of less ambitious goals. If it is determined that the project cannot be completed in time for its intended use, this could lead to the development of interim solutions until construction is completed. If the project cannot be designed and constructed to the required specifications, this could lead to the revision of the specifications, and in certain cases, project abandonment.

The above discussion assumes that the challenge in addressing technical risks lies in determining the most advantageous mix of time, cost and quality, but the real concern may lie in the uncertainty as to whether the objectives of the project can be achieved at all, regardless of the determination of the optimal combination of time, cost and quality. Heavy civil works projects are more likely to encounter completion risks than are projects involving the development of more conventional real estate. Because of the significant financial stakes involved in heavy civil works projects, the failure to accurately assess completion risks may lead to serious consequences.

Despite the challenges referred to above, heavy civil works projects in which completion risk is generally transferred to the developer are awarded on a regular basis, and as such, provided that sufficient opportunity is afforded to the developer to conduct appropriate technical due diligence, and provided that the underlying contract allocates particular elements of the completion risk to the party best able to manage the risk, these types of infrastructure projects are rarely abandoned solely on the basis of technical risk.

Technical Specifications

The development of technical specifications is also somewhat relevant in selecting among delivery models. In general, the less conventional the delivery model is, the less prescriptive and the more performance-oriented the technical specifications tend to be. In other words, technical specifications are developed by defining the functionality requirements of the infrastructure, which has the effect of freeing up design and construction to meet those functionality requirements in the most technically and financially advantageous manner. As such, innovation by the developer and a concomitant increase in value (or decrease in cost) is made possible and is often achieved.

Nevertheless, it may remain appropriate to specify a project more prescriptively in whole or in part for a number of reasons: (1) the technical expertise to interpret and apply the relevant functionality requirements may be heavily concentrated in government and not in the relevant developer community, (2) the risk of misinterpretation and misapplication of functionality requirements may be too great, (3) the extent of developer innovation or the willingness of developers to invest in innovation "on spec" during a competitive process may be low, or (4) practically speaking, the time and money required to develop functionality requirements when prescriptive requirements are already available may not be warranted. Considerations such as these may lead to relatively rigid specifications, and could in certain cases support strictly conventional delivery models.

Performance Monitoring Regime

The ability to implement an effective performance monitoring regime is also relevant to the selection of delivery models. In monitoring design and construction, governments must ensure compliance with technical specifications while avoiding micro-management of the developer and liability for design and construction defects that can arise from design review or construction audit. However, while there can be significant challenges in designing and

implementing an effective performance monitoring regime, these challenges alone rarely support in-house delivery as against an alternative form of delivery.

Political Considerations

Political considerations often play a key role in the selection of delivery models. The policies, perceptions, attitudes and agendas of the general public, elected officials, the public service, and the affected stakeholder community are all relevant considerations. While these matters alone are not necessarily determinative, the views of these groups, and their likely evolution over time, should be taken into account. So too should election timing, as the risk of a change in government and a resulting shift in the mandate of the public service will often chill interest in the developer community in bidding on a public infrastructure development opportunity. The thoughtful forecasting of the political climate is critical in the selection of the appropriate delivery model.

Implementation Considerations

While implementation considerations do play a role in the selection of delivery models, they tend to focus on "how to do it right once you've decided how" rather than on "how to do it right in the first place". Still, the adage that "if you're not going to do it right, don't do it at all" should be well-heeded.

One critical consideration with respect to implementation is whether a sufficiently viable supplier market exists or can be formed to respond to the opportunity presented by a particular infrastructure project. If no such market exists or can be formed, then clearly any competitive bidding process would be inappropriate. For projects of sufficient size, the international supplier community may take interest, and if it does, it will often team-up with members of the domestic supplier community to secure on-the-ground experience and to achieve cost efficiencies. This has the effect of contributing to the development of a domestic supplier community such that a local supplier market may be created for future projects of a similar nature. Where the supplier market exists, but is weak or unstable, then aggressive marketing of the opportunity may be in order.

Timing Considerations

Timing considerations also play a role in the selection of delivery models. Development of public infrastructure is notoriously prone both to urgency of need and to apparent lack of urgency in decision-making. Different delivery models may dictate the selection of different competitive procurement structures. The structure of the competitive process can have a significant bearing on the timing of project award and ultimately, project completion. In some cases, more conventional approaches to delivery can lead to longer selection processes with later project delivery (as can be the case with design-bid-build as against design-build procurement). In other cases, more conventional approaches to delivery can lead to shorter processes with earlier project delivery (as can be the case where project complexity might be resolved more effectively and efficiently if the process involved only a single owner's engineer rather than extensive consultation with multiple competitive bidders). In any case, the work involved in an effective selection process, both by government and by bidders, can be enormous and should not be underestimated. Furthermore, longer selection processes, in addition to delaying project delivery, also increase the cost (and risk) of the selection process to all parties.

Process Design

The focus of the foregoing, and in general, of business cases, is on the selection of the delivery model or models for the development and operation of public infrastructure, and not on the design of the process to select the developer and operator of the infrastructure. There are, however, important decisions that can be made about the overall structure of the selection process at this early stage. The considerations that feed into the determination of the overall structure of the selection process, and later into the detailed design of that process, overlap with those that relate to the selection and detailed design of the delivery model. This topic will be discussed in greater detail in further issues of *Crossroads*.

Goodmans LLP

Based in Toronto, with offices in Vancouver and Hong Kong, Goodmans is recognized internationally as one of Canada's premier transaction law firms. Lexpert called us a "corporate powerhouse", and the National Post, "a testament to smarts over size". We rank among the very best lawyers in Canada in our fields of practice, not only in our own estimation but also in the opinion of recognized independent guides to the world's leading lawyers including, *Lexpert, Chambers and Partners, Euromoney* and *Law Business Research*.

With over 190 lawyers and offices in Toronto, Vancouver and Hong Kong, Goodmans provides a complete spectrum of legal advice and representation to domestic and foreign business clients ranging from entrepreneurial businesses to multinational corporations across a wide range of industries. Goodmans' **Procurement and Infrastructure Renewal Group** has been at the forefront of the most important public infrastructure development projects in Canada, such as Highway 407, the Fredericton-Moncton Highway Project in New Brunswick (which was awarded the 2003 Gold Award for Infrastructure from the Canadian Council for Public Private Partnerships) and most recently, the Toronto Waterfront Revitalization Initiative.

KPMG LLP

KPMG LLP is the Canadian member firm of KPMG International, a Swiss cooperative. KPMG is the global network of professional services firms whose aim is to turn understanding of information, industries, and business trends into value. With nearly 100,000 people worldwide, KPMG member firms provide audit, tax, and advisory services from 715 cities and 148 countries. Currently KPMG LLP has over 4,000 people in 34 offices across Canada.

KPMG's **Public-Private Advisory Group** is one of the leading advisors in Canada for public infrastructure development projects involving both the public and the private sectors. Founded in the 1970's, it has been involved on both the owner and the bidder side of transactions across Canada, the United States, Latin America, Europe, and Asia, typically for projects in the $100 million to $1 billion range. KPMG has centres of excellence in public-private advisory work in Toronto, London (England), and Melbourne.

In one of their most recent landmark deals, members of KPMG's Canadian, UK and Irish firms advised Ireland's National Roads Authority in the implementation of its N4/N6 Kilcock-Kinnegad highway project, the first public-private partnership in the Irish road sector and Project Finance International's 2003 Infrastructure Deal of the Year.

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