

## **Public-Private Partnerships as a Model for High Speed Rail Development in Canada—Towards Efficient and Alternative Public Infrastructure**

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## INTRODUCTION

The prospect of High-Speed Rail (HSR) in Canada is gaining popularity in the wake of transportation sustainability. HSR is defined as public infrastructure for rail transit systems capable of traveling 200 km/h (125 mph) or faster.<sup>1</sup> But if HSR develops in Canada, how should it be pursued when public authorities often face infrastructure deficits? The answer appears to be in public-private partnerships (P3s or PPPs). P3s have become the preferred method in Canada to build public infrastructure assets such as roads, bridges, schools, and hospitals. Canada's P3s have rich sources in local provincial and municipal procurement processes. P3s are also popular among those jurisdictions with HSR (including France, Japan, China, Germany, and Spain), and those currently building HSR (such as California).<sup>2</sup> The popularity of P3s in public infrastructure development is largely due to how they share risks, duties, and rewards, while promoting efficiency in project bundling. This means that from start to finish, all stages of development are tied to specific milestones, giving certainty to both public authorities and private investors. There is no single P3 model—a P3 adapts to the needs and circumstances of the public infrastructure project. This flexibility allows public authorities, along with the private sector, to tailor their interests.

This Article demonstrates how P3s can help build HSR<sup>3</sup> in Canada's transportation sector. In doing this, this Article compares P3s to

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<sup>1</sup> JULIE TASKER-BROWN & JUDITH PATTERSON, A NEW PERSPECTIVE ON HIGH-SPEED RAIL IN THE QUEBEC-WINDSOR CORRIDOR: ADDRESSING THE DISTANCE/DENSITY DEBATE 3 (2014), <http://ctrf.ca/wp-content/uploads/2014/07/A-New-Perspective-on-High-Speed-Rail-in-the-Quebec.pdf>.

<sup>2</sup> Since 1994, the private sector has invested over \$260 billion (USD) in P3s around the world (mainly in Europe, Australia, and Canada). PRICEWATERHOUSECOOPERS LLP, DELIVERING THE PPP PROMISE—A REVIEW OF PPP ISSUES AND ACTIVITY 26 (2005), <https://www.pwc.com/gx/en/government-infrastructure/pdf/promisereport.pdf> [hereinafter PRICEWATERHOUSECOOPERS].

<sup>3</sup> The legal issues affecting HSR generally include: (1) Corporate Law—partnerships of public and private entities; (2) Contract Law—P3 Agreements; (3) Administrative and

traditional procurement using examples of Canadian P3s in roadways and light rail transit, as well as international P3 examples used for HSR. The public procurement process in Canada is becoming more open and competitive for private sector participants involved in building public assets. The growing recognition of P3s at all levels of government (federal, provincial, and municipal) for public asset development means that it is reasonably foreseeable for HSR to develop from it. Together, the domestic and international examples reveal how P3s are practical tools to deploy HSR in Canada. While P3s are not the only choice to pursue HSR, they are a much better alternative to the traditional procurement model.

Part I explains both public infrastructure development and P3s. Part II assesses the advantages and disadvantages of P3s. Part III discusses the elements of P3s, as well as municipal P3s. Part IV examines three successful Canadian P3s in Edmonton and Winnipeg, and then describes three international examples of P3s with mixed results in the Netherlands, Taiwan, and California. From these examples, Part V applies the best practices and principles of P3s to determine how Canada can pursue its own HSR and suggests various

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Municipal Law— procurement process (with RFQs and RFPs); (4) Transportation Law— Federal Surface Transportation Policy and Laws (Transport Canada), dealing with track lines extending beyond provincial boundaries (including electrification), and airports (under federal jurisdiction), as well as Provincial Transportation Policy and Law, involving provincial and municipal transportation agencies, and the regulation of track lines within provincial boundaries; (5) Property Law—Expropriation—Land Acquisition (purchase of private land for public purposes in exchange for reasonable compensation (includes public consultation), and Re-Zoning, involving rezoning of municipal and rural bylaws; (6) Environmental Law—Environmental Assessments (conducting federal Environmental Assessments (EAs) for industrial development affecting communities and ecosystems), and Public Consultation (as part of the environmental regulatory process, public consultations would address impacts of development on surrounding communities); and (7) Employment and Labour Law—Employment and Public Safety (Canada Labour Code). The advantages of HSR are that it: reduces carbon emissions (improves air quality); decreases travel time for passengers between destinations; reduces congestion and accidents on highways/reduces congestion at airports; enhances tourism (access to resorts); promotes efficient commerce (increase commercial ties between cities); reduces need for land to avoid expansion of roads; stimulates research and development; creates new jobs in alternative transportation; creates spin-off effects economic development; and represents innovative urban development by integrating transportation systems. The disadvantages of HSR are that it: can be costly (in the billions, depending on the region); may not be high enough to justify its use considering population densities; does not share the same track as conventional trains—a separate, dedicated track is required; and requires land to build stations and install a track system.

recommendations. The author concludes that P3s represent the most effective way to build HSR in the world's second largest nation.

## I

### PUBLIC INFRASTRUCTURE DEVELOPMENT IN CANADA

Public infrastructure development involves government and private sources in the design, building, financing, operation, and maintenance of public assets.<sup>4</sup> There are two models for public infrastructure development: traditional procurement and P3s. Traditional procurement is when the government oversees a procurement process where prospective private investors participate in a competitive bidding process. The government pays for up-front capital costs, planning, and designing, while the private sector is responsible for delivering the public asset, such as a road, bridge, or light-rail transit. Moreover, the public authority awards multiple contracts to different private entities, usually for duties such as grading, paving, bridge construction, and lighting. Here, the government provides all financing, thereby assuming the risks for the entire project. But governments face “infrastructure deficits,” where they have limited financial resources to pay for capital costs for public infrastructure. The “deficit” lies between the actual infrastructure costs and the public finances available. As such, taxpayers must pay the difference for any infrastructure project.

In contrast, P3s allow public authorities and the private sector (or private partner) to share financing, skills, resources, and technology using a more open, transparent, and flexible procurement process. P3s are rigorous—they set clear, specific documents, technical and legal specifications, and milestones from start to finish. This means that during the lifecycle of the project, the private partner must comply with the project's requirements, thereby ensuring on-time delivery of the public asset. In P3s, payment to the private sector is tied to service outcomes and performance of the public asset over its lifecycle. The private sector will usually design, build, finance, and operate/maintain the public project, and will seek revenues only upon completion of the project.

Thus, choosing between traditional procurement or P3s is relevant, considering that Canada spends heavily in its transportation sectors. In

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<sup>4</sup> In Canada, there are currently sixty-seven transportation infrastructure projects worth over \$53 billion (CAD), more than health care (\$26.5 billion), energy (\$26 billion), justice (\$5 billion), and education (\$3 billion). Gov't of Canada, *Chapter 3.4—Investing in Infrastructure* (2015), <http://www.budget.gc.ca/2015/docs/plan/ch3-4-eng.html>.

2017, total federal investment of \$187.5 billion (CAD) was made in Canada's public infrastructure projects.<sup>5</sup> Included in those infrastructure projects were forty-one projects in transportation (light rail transit and roadways) worth \$83.3 billion. Since the 1990s, P3s efficiently delivered many public infrastructure projects at all levels of government—around eighty-three percent of all P3 projects in Canada were delivered on time.<sup>6</sup> So what is a P3? How does it lead to better value for public infrastructure assets?

## II

### WHAT ARE PUBLIC-PRIVATE PARTNERSHIPS (P3S)?

In broad terms, a P3 is a partnership between public and private entities for mutual benefit in achieving a specific purpose for the public interest.<sup>7</sup> In more precise terms, a P3 is a long-term sharing of resources, risks, and rewards between the public and private sectors to design, build, finance, operate, and maintain public infrastructure assets such as transportation, energy, health, water/wastewater, justice, real estate, and affordable housing.<sup>8</sup> It is an alternative to traditional

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<sup>5</sup> Andrew Macklin, *Top 100—An In-Depth Look at Canada's Biggest Public Infrastructure Projects*, RENEW CANADA 12 (Jan./Feb. 2017), <http://renewcanada.net/archives/>.

<sup>6</sup> VIJAY GILL & SARAH DIMICK, CANADA AS A GLOBAL LEADER: DELIVERING VALUE THROUGH PUBLIC-PRIVATE PARTNERSHIPS AT HOME AND ABROAD THE CONFERENCE BOARD OF CANADA 22 (2013), [www.infrastructure.alberta.ca/documents/14-004\\_P3\\_Leader\\_RPT\\_-\\_08\\_21\\_13.pdf](http://www.infrastructure.alberta.ca/documents/14-004_P3_Leader_RPT_-_08_21_13.pdf).

<sup>7</sup> The World Bank's definition of a P3 is: "[A]ny organization designed to promote or improve PPPs . . . [and has] a lasting mandate to manage multiple PPP transactions, often in multiple sectors." WORLD BANK, PUBLIC-PRIVATE PARTNERSHIP UNITS: EXECUTIVE SUMMARY 2 (2010), <http://siteresources.worldbank.org/INTEAPINFRASTRUCTURE/855084-1207760724582/Executive-PPP-Units.pdf>.

<sup>8</sup> The Canadian Council for P3s (CCPPP) defines P3s as: "A cooperative venture between the public and private sectors, built on the expertise of each partner, that best meets clearly defined public needs through the appropriate allocation of resources, risks, and rewards." Canadian Council for Public-Private Partnerships, *Definitions & Models*, [http://www.pppcouncil.ca/web/Knowledge\\_Centre/What\\_are\\_P3s/Definitions\\_Models/web/P3\\_Knowledge\\_Centre/About\\_P3s/Definitions\\_Models.aspx?hkey=79b9874d-4498-46b1-929f-37ce461ab4bc](http://www.pppcouncil.ca/web/Knowledge_Centre/What_are_P3s/Definitions_Models/web/P3_Knowledge_Centre/About_P3s/Definitions_Models.aspx?hkey=79b9874d-4498-46b1-929f-37ce461ab4bc) (last visited June 10, 2017). According to the CCPPP, there are several examples of P3s in Canada, including P3s Canada Inc. (federal), Infrastructure Ontario, Alberta Infrastructure, SaskBuilds, Partnerships BC, Partnerships New Brunswick, and La Société Québécoise Des Infrastructures (SQI). By jurisdiction, most P3 projects are provincial in nature, while the rest are municipal and federal. *See generally* STEVEN HOBBS, AN OVERVIEW OF PUBLIC-PRIVATE PARTNERSHIPS IN CANADA (May 19, 2016),

procurement to build public assets where the public owner contracts with a private partner to ultimately deliver a public asset. In other words, a P3 is not privatization, but merely a license for the private partner to help the public authority build a project for the public interest. In essence, P3s allow for public infrastructure development where the state uses private capital and resources to advance public policy goals.

The public owner includes all levels of government, including federal, provincial/state, and municipal governments. The private sector typically includes construction/engineering firms, architects, manufacturers, accounting/finance, equity investors, and lenders.<sup>9</sup> The history of P3s dates back to the 1990s. In addressing infrastructure deficits, nations such as Spain, France, Portugal, Germany, Italy, United Kingdom, and Australia began using P3s to build both large and small public infrastructure projects. Canada also used P3s for its public infrastructure since the 1990s, and its own P3 market matured to the extent that it became a very popular policy tool.<sup>10</sup> Evolving issues for P3s include: (1) insufficient risk transfer from the public to the private sector; (2) lack of transparency and openness in the bidding process of traditional procurement; and (3) failing to keep the long-term goal of the project in mind.

The procurement process falls under the local regulatory framework. This means that private bidders must deal with a host of complex laws and regulations. This represents a transactional cost to the bidder for complying with procurement regulations. To reduce this burden, the P3 standardizes the procurement process by requiring open and fair disclosure of certain documents (e.g., financial statements, and references), and following recommended guidelines and best practices. Upon reviewing the disclosure, public authorities then structure the P3 agreement in a holistic manner—addressing all issues in the lifecycle of the project and coordinating all stakeholders at different levels. This improves communication between the procurement agency and the

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<https://www.edco.on.ca/resources/Documents/Steve%20Hobbs%20Public%20Private%20Partnerships.pdf>.

<sup>9</sup> See U.S. DEP'T OF TRANSP., REPORT TO CONGRESS ON PUBLIC-PRIVATE PARTNERSHIPS viii–ix (Dec. 2004), <http://www.fhwa.dot.gov/reports/pppdec2004/pppdec2004.pdf>.

<sup>10</sup> Several examples of P3s in Canada's transportation sector include: (1) Edmonton's Anthony Henday Drive; (2) Calgary's Stoney Trail (NE and SE); (3) Winnipeg's Chief Peguis Trail and Disraeli Bridges; (4) city of Barrie P3 Transit Service Project; (5) Quebec's Bridge for St. Lawrence; and (6) Vancouver's Canada Line. GILL & DIMICK, *supra* note 6, at 38.

private sector on technical, legal, and financial matters. The P3 unit keeps the interested parties in line with the long-term goals of the public infrastructure project, which ensures that each stakeholder keeps its eyes on the final project by complying with regulatory requirements. Without this oversight of the governing agency, overall quality control suffers.

P3s are popular mainly because they result in cost savings.<sup>11</sup> Cost savings derive from lifecycle optimization, construction efficiencies/innovations, and shifting of risks from public to private entities. Lifecycle optimization is created through project bundling, where all stages of development in the project are lumped into a single, comprehensive contract as a P3 agreement. This comprehensive contract creates more certainty for both the public and private entities and avoids the disjointed aspects of project development in traditional procurement, which often create internal inefficiencies. The procurement process is efficient and predictable.<sup>12</sup> There is a steady flow of revenue from a long-lasting public asset in the form of concessions. A concession refers to when permission is given to a private firm to build and operate a public asset so that it may collect revenue from that asset for a fixed period of time. Here, the private firm recovers their initial investment in the project, including design, construction, borrowing costs, operation, and maintenance. The private sector earns revenue during the lifecycle of the P3 project, which usually lasts twenty to forty years. Taxpayers will pay only their portion for the costs of a P3 project; the private developer pays the rest. The clear advantage for the public sector is that payments to the private sector are spread over the lifecycle of the public asset.<sup>13</sup> This prevents taxpayers from paying at the beginning of the project. The issue is whether P3s are more cost-effective and efficient in building public infrastructure assets when compared to traditional procurement.

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<sup>11</sup> For instance, costs savings of P3s is about thirteen percent more compared to traditional procurement (according to value for money studies). *Id.* at ii.

<sup>12</sup> The average procurement process time in Canada is eighteen months, compared to three years in the United Kingdom. *Id.*

<sup>13</sup> See Gunnar Alexandersson & Staffan Hultén, *Prospects and Pitfalls of Public-Private Partnerships in Railway Transportation—Theoretical Issues and Empirical Experience*, STOCKHOLM SCHOOL OF ECONOMICS 2 (Oct. 17, 2007), <http://www.thredbo-conference-series.org/downloads/thredbo10-papers/thredbo10-themeC-Alexandersson-Hulten.pdf>.

Under P3s, the public sector often enters into a P3 agreement with a private consortium to pursue large, costly, and complex projects.<sup>14</sup> But the private sector assumes the operational and maintenance risks normally placed on the government. Payment to the private sector is based on usage and availability. That is, payments relate to meeting outputs—annual payments from government for projects with direct user fees (road tolls or rail fares).<sup>15</sup>

Indeed, at all levels governments are promoting P3s for public infrastructure development. The Conference Board of Canada reported that P3s create efficiency gains for the public sector in terms of time and costs during the construction period. Such efficiency gains were tied to output-based contract specifications, private financing, integration of planning for building and maintenance, and the transfer of risks from public to private entities. The Deputy Director General of the European Commission, Zoltan Kazatsay, once stated:

Efficient use of PPP schemes in delivering necessary transport investments can help ease the pressure on public finances and deficits as well as contribute to more stable economic growth and increased transparency of public spending; by maximizing the value of public money, more can be built and operated with given amounts of public resources. False PPP arrangements work best where there is an explicit policy commitment by national governments to involve the private sector, a clear long-term political will, a high-quality partnership, transparency, clearly specified financial guarantees, and an established, stable legal environment.<sup>16</sup>

The above quote indicates three key points. First, political will for P3s is necessary to attract private investment to build large, complex public infrastructure projects, thereby easing the burden on the taxpayer. Second, there should be an open, fair, and transparent P3 process, where clear evaluative criteria are available to prospective bidders to bid on a project. When the private sector realizes that the procurement (bidding) process is open and fair, they will likely participate in submitting bids. The more submissions of competitive bids, the more likely the public project will be realized to serve the public interest. Third, a stable legal framework creates certainty and

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<sup>14</sup> There are various models of P3s, including the Design Build Finance Maintain Operate (DBFMO), Design Build Finance Own Maintain Operate Transfer (DBFOMOT), Design Build Finance and Maintain (DBFM), and Design Build Finance (DBF). ASS'N OF CONSULTING ENGINEERING COMPANIES, UNDERSTANDING PUBLIC PRIVATE PARTNERSHIPS IN CANADA 14–16, [http://www.acec.ca/files/resources/acec\\_P3\\_report\\_v3.pdf](http://www.acec.ca/files/resources/acec_P3_report_v3.pdf).

<sup>15</sup> PRICEWATERHOUSECOOPERS, *supra* note 2, at 15.

<sup>16</sup> *Id.* at 6.



flexibility for private bidders. When the private sector becomes familiar with P3 procurements, together with adequate funding from all levels of government, they gain confidence in the P3 project.

### III

#### ADVANTAGES AND DISADVANTAGES OF P3S

Although P3s are preferred in Canada, one must objectively evaluate their advantages and disadvantages, as not all P3s necessarily deliver public assets. Figure 1 below shows the advantages and disadvantages of P3s.

Figure 1: Advantages and Disadvantages of P3s

Advantages	Disadvantages
Sharing of Resources and Expertise between Public and Private <ul style="list-style-type: none"> <li>- private sector has expertise and financing</li> <li>- cost savings in efficiencies and innovations</li> </ul>	Hold-Ups <ul style="list-style-type: none"> <li>- delays are created when unexpected events occur, such as poorly designed P3 agreements failing to cover risks</li> </ul>
Financing—Generation of Capital and Cost Containment <ul style="list-style-type: none"> <li>- avoids burdening public authorities to increase taxes</li> <li>- internal efficiencies                             <ul style="list-style-type: none"> <li>o lenders have strict due diligence requirements for borrowers—use technical consultants to ensure realistic revenue forecasts)</li> </ul> </li> </ul>	Lock-ins <ul style="list-style-type: none"> <li>- debt interest rate may be locked in on historical interest rate for a long time, rather than re-negotiating debt at various times</li> <li>- some non-competition clauses limit system-wide planning and service integration</li> </ul>

Advantages	Disadvantages
<b>Project Bundling</b> <ul style="list-style-type: none"> <li>- merging all stages of development (design, build, finance, operation and maintenance)               <ul style="list-style-type: none"> <li>o Creates certainty for investors (clear schedules, financing, targets)</li> </ul> </li> <li>- Costs are considered throughout the life of the project</li> </ul>	<b>Government Bailouts</b> <ul style="list-style-type: none"> <li>- public authority may need to bailout private partner due to bankruptcy or other issues (does not occur with traditional procurement)</li> <li>- private partner may not handle transferred risks</li> </ul>
<b>Procurement process is fair, competitive, transparent, and efficient</b> <ul style="list-style-type: none"> <li>- ensures accountability among bidders in the bidding process</li> <li>- creates strong and flexible regulatory framework</li> </ul>	<b>Cost Overruns</b> <ul style="list-style-type: none"> <li>- the overall cost of the project may go beyond original estimates</li> <li>- risk allocation will include additional costs to compensate the private partner for taking on public sector risks (e.g., RFP costs)</li> </ul>
<b>Transfer of Risk from Public to Private (Risk Allocation)</b> <ul style="list-style-type: none"> <li>- risks are clearly identified</li> <li>- public money does not begin to flow until asset is fully operational</li> </ul>	<b>Collusion in Bidding Process</b> <ul style="list-style-type: none"> <li>- a private bidder may give distorted disclosure to gain bidding advantages</li> <li>- results in unfair, costly bidding</li> </ul>
<b>Technological Innovation</b> <ul style="list-style-type: none"> <li>- projects demand creativity and innovation among private partners</li> <li>- emergence of new technology for sustainable projects</li> </ul>	<b>Limited Public Consultation</b> <ul style="list-style-type: none"> <li>- confidentiality in P3 agreements may limit public consultation on the project</li> </ul>
<b>Quicker, On-time Delivery of Public Asset</b> <ul style="list-style-type: none"> <li>- Payment is tied to Delivery and Performance of Public Asset</li> </ul>	<b>Changing Needs of the Project</b> <ul style="list-style-type: none"> <li>- the conditions, environment, and technological needs of the project may change over time</li> </ul>
<b>Creates Off-Balance Sheets</b> <ul style="list-style-type: none"> <li>- governments only account for the annual payments it makes to the P3 company, and not for the project's assets and liabilities (keeps government deficits low)</li> </ul>	<b>Possible Negative Impacts on Unions</b> <ul style="list-style-type: none"> <li>- unions may contest impact of P3 on their members</li> </ul>

We have discussed the advantage of P3s, but what about its disadvantages? First, there may be cost overruns. Some commentators criticize P3s as being more expensive than traditional procurement. This occurs when private consortia build “insurance premiums” into their own bids to deal with unforeseen delays and increased costs.<sup>17</sup> The use of private debt to finance public projects may inflate the bid price

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<sup>17</sup> Anthony E. Boardman, Matti Siemiatycki, & Aidan R. Vining, *The Theory of Evidence Concerning PPPs in Canada and Elsewhere*, 9 UNIV. OF CALGARY SPP RESEARCH PAPERS 1 (2016), <https://www.policyschool.ca/wp-content/uploads/2016/05/p3-boardman-siemiatycki-vining.pdf>.

compared to traditional procurement. Second, government bailouts may occur, in which the private partner fails as a business, resulting in no public asset. This occurs when there are internal problems, poor management, or exposure to market forces. Third, collusion may result among private bidders.

The private bidders may give an inadequate or false disclosure that misrepresents their abilities to handle the fundamental requirements of the project (e.g., having proper finances or adequate technology). As a result, the P3 project may be delayed or become costlier. In response to these negative experiences, policy planners set strict evaluative criteria during the P3 procurement process, where private bidders attend public informational meetings to provide adequate disclosure in the Requests for Qualifications (RFQ) and Request for Proposals (RFP) stages. Here, the public authority can review the disclosure to assess risks and assess costs during the lifecycle of the project. This limits cost overruns and reveals the capacity of the private partner to handle all aspects of the project.

#### IV

##### **ELEMENTS AND STAGES OF P3S—HOW P3S WORK IN CANADA**

What is responsible for making P3s so effective in Canadian public infrastructure development? The answer lies in its core elements, namely:

- Policy and Law
  - Federal: New Building Canada Plan
  - Provincial: Public authorities (Provincial Procurement Agency)
- The Procurement Process
  - RFQs and RFPs
    - ◆ Value for Money (VfM)
- P3 Agreement
  - Clauses addressing all P3 stages of development (design, build, finance, operate/maintain)
  - Clauses include legal, financial, and technical issues

##### ***A. Policy and Law***

In Canada, the construction, repair, or renovation of public infrastructure works are guided by both public works and traditional

procurement policies and laws. These are regulated by public authorities (known as provincial procurement agencies).<sup>18</sup> In contrast, P3s are guided by provincial infrastructure frameworks and guidelines. Within these guidelines lie the basic principles of P3s and the overall process of its own procurement. Each province has a Ministry of Transport that issues standards and guidelines for transportation projects for both traditional procurement and P3s. Since the 1990s, the legislative intent among Canadian legislators is clear—to encourage the use of P3s in building public infrastructure projects at all levels of government. The current federal New Building Canada Plan (2013) is a ten-year plan to fund \$53 billion to the provinces, territories, and municipalities for public infrastructure projects using P3s.<sup>19</sup>

The federal Department of Public Works and Government Services Act (1996) guides federal projects,<sup>20</sup> while its provincial equivalents deal with provincial P3 projects under public works legislation (such as the Public Works Act in Alberta, the Public Works Agreement Act in British Columbia, and the Public Works Protection Act in Ontario).<sup>21</sup> Local procurement processes are highlighted in legislation, stressing for governments to pursue public projects only where practical. For instance, Section 3 of Alberta’s Public Works Act states: “When it appears practical or expedient to the Ministry to do so, the Ministry may by invitation or public notice call for tenders for the construction,

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<sup>18</sup> The provincial procurement agencies are often headed by ministries of infrastructure, finance, and justice that create P3 standards, formal documentation, and a strict evaluation process for all participant bidders in the public project. These agencies all use different names in different jurisdictions—Infrastructure Ontario, Infrastructure Quebec, Partnerships BC, Partnerships New Brunswick, and Alberta Alternative Capital Financing Office. GODYNE SIBAY, PUBLIC-PRIVATE PARTNERSHIPS 80, [https://www.mccarthy.ca/marcomm/DBIC/2016/DBIC\\_Chapters/13\\_Public-Private\\_Partnerships.pdf](https://www.mccarthy.ca/marcomm/DBIC/2016/DBIC_Chapters/13_Public-Private_Partnerships.pdf) (last visited Jan. 18, 2018).

<sup>19</sup> DEP’T OF FIN. CANADA, CHAPTER 3.3: THE NEW BUILDING CANADA PLAN (2013), [http://www.fin.gc.ca/new\\_template/2013/doc/plan/chap3-3-eng.html](http://www.fin.gc.ca/new_template/2013/doc/plan/chap3-3-eng.html) [hereinafter PPP CANADA FUNDING].

<sup>20</sup> Dep’t of Public Works & Gov’t Servs. Act, R.S.C. 1996, c 16 (Can.).

<sup>21</sup> There are several public procurement laws and policies in Canada. For instance, British Columbia has its Procurement Services Act, S.B.C. 2003, c 22; Alberta has its Public Works Act, R.S.A. 2000, c P-46; Ontario has its Public Works Protection Act, R.S.O. 1990, c P-55, and the Broader Public Sector Accountability Act, S.O. 2010, c 25; Newfoundland and Labrador has its Public Tender Act, S.N.L. 1990, c P-45; New Brunswick has its Procurement Act, S.N.B. 2012, c 20; Nova Scotia has its Province of Nova Scotia Sustainable Procurement Policy and Public Procurement Act, S.N.S. 2014, c 34; Prince Edward Island has its Public Purchasing Act, R.S.P.E.I. 2014, c P-32; and Québec has An Act Respecting Contracting by Public Bodies and The Regulation Respecting Supply Contracts of Public Bodies, S.Q. C-65.1.

demolition, alteration and repair of and the supplying of materials for public works.”<sup>22</sup>

*1. Manitoba’s Public-Private Partnership Transparency and Accountability Act*

Manitoba has modern P3 legislation in its Public-Private Partnership Transparency and Accountability Act (2013).<sup>23</sup> The Act applies to major capital P3 projects of \$120 million or more, which are regulated by public authorities. Here, public authorities mean the Government of Manitoba, municipalities, and local governments. The general purpose of the Act is to enhance transparency and accountability in the decision-making process leading up to a P3 project. This is achieved in the following ways:

- Conduct a detailed risk assessment (Value for Money) to determine if the P3 is preferable to traditional procurement;
- Follow conflict of interest rules for consultants hired by public authorities;
- Seek consultation of the public prior to the competitive bidding process;
- Use an independent fairness monitor to oversee the procurement process; and
- Have the public authority publish results of the P3 to the public.

Transparency and accountability provisions are built into the statute. Section 7(1) of the Act states: “A public sector entity that uses the P3 procurement method for a major capital project must appoint an external consultant to act as its fairness monitor for the project.”<sup>24</sup> That

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<sup>22</sup> Public Works Act, R.S.A. 2000, c P-46, [www.qp.alberta.ca/documents/Acts/P46.pdf](http://www.qp.alberta.ca/documents/Acts/P46.pdf) (last visited June 10, 2017). Various issues covered by such Acts include expropriation, the public tendering process (competitive bidding), and development plans. Supporting this legal regime are public accountability laws such as British Columbia’s Budget Transparency and Accountability Act, S.B.C. 2000, c 23, [www.bclaws.ca/civix/document/id/lc/statreg/00023\\_01#section23](http://www.bclaws.ca/civix/document/id/lc/statreg/00023_01#section23).

<sup>23</sup> JOHN STEFANIUK, MANITOBA LEGISLATION REGULATING P3 PROJECTS PROCLAIMED INTO FORCE 2 (Apr. 14, 2014), <https://www.tdslaw.com/resource/manitoba-legislation-regulating-p3-projects-proclaimed-into-force/>. Manitoba is uniquely situated in that, unlike other provinces like Ontario, British Columbia (BC), and Alberta, it does not have a public infrastructure agency. *Id.*

<sup>24</sup> Public-Private Partnerships Transparency and Accountability Act § 7(1), C.C.S.M., c. P.245.

is, an independent party is appointed to review the entire procurement process on behalf of the public sector, and avoid any potential conflict of interest issues with the public authority handling the project. The duties of the fairness monitor are clearly outlined in Manitoba's Act in terms of publishing a report for the public sector. Section 7(2)(a) states: "The duties of the fairness monitor under the terms of his or her appointment must include . . . advising the public sector entity on the procurement process for the purpose of ensuring that it is conducted with openness, transparency, integrity, and accountability."<sup>25</sup>

The Act describes any P3 project where a private partner assumes all or substantially all of the project's design, construction, financing, operations, and maintenance. The Act makes clear that ownership of the P3 project reverts back to the public authority. The Act also contains the Public-Private Partnership Regulation,<sup>26</sup> which sets out the project's preliminary analysis, public consultation requirement, and contract regime. The preliminary analysis must include anticipated project costs, a quantitative risk assessment, a risk allocation matrix, a cost benefit analysis, an evaluation of efficiency gains, discount rates, and value for money.

The Regulation also requires a comparison of time frames for delivery of the public asset, including the level of expertise of each private partner. The Regulation clarifies the scope of the P3 agreement—a description of the project, names of parties, payment structure, amount of security deposited, and insurance. The Regulation stresses confidentiality of P3 agreement issues to preserve the interests of the private partner. Confidentiality is necessary in this respect because it may discourage the private bidder to participate in public disclosure of their own information.<sup>27</sup>

Governments often struggle with infrastructure deficits by experiencing budget shortages to build such projects. To remedy this challenge, the federal New Building Canada Plan was introduced to assist governments in public infrastructure through direct funding, avoiding traditional procurement that relies exclusively on public capital expenditures. The federal contribution is limited to one-third of costs for a P3 project. To qualify for this funding, there must be a showing of a public benefit, such as reducing traffic congestion, improving mobility, and environmental sustainability (particularly on

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<sup>25</sup> *Id.* § 7(2)(a).

<sup>26</sup> Public-Private Partnership Regulation, C.C.S.M. Reg126/2013, c P.245.

<sup>27</sup> STEFANIUK, *supra* note 23, at 4.

projects over \$100 million).<sup>28</sup> The choice of this Canadian policy was influenced by positive international experiences with P3s, particularly in England, Australia, and the European Union.

In essence, to build public infrastructure assets, the federal plan discourages public authorities from using traditional, government-led procurement in favor of a blended approach with public and private resources in P3s. Under the auspices of the New Building Canada Plan is a funding mechanism known as the P3 Canada Fund. Managed by P3 Canada, a federal Crown corporation, the eligibility requirements for receiving funding of a project include: (1) it must foster economic growth; (2) it supports a clean environment; and (3) it promotes strong communities. If eligible, one may receive up to twenty-five percent of direct construction costs by way of loans, loan guarantees, or contributions.<sup>29</sup>

### ***B. The Procurement Process***

The procurement process is an invitation to prospective private bidders to file submissions to a public authority in building public projects. It is a comprehensive plan to obtain goods, services or works, financing, technology, and the expertise of qualified bidders (usually a consortium). The project's requirements are set by the public authority as part of a competitive bidding process. The most compliant and valuable bid is usually the winning bid. In the public interest, the competitive bidding process must be open, transparent, and fair to avoid collusion and bias among the participants, as well as selecting qualified bidders—those best capable of handling the project. All details of the project from start to finish should be available for scrutiny, not only by the procurement agency responsible for the P3 project, but also the general public.

In Canada, there is a regulatory framework for the procurement process, managed by a public authority.<sup>30</sup> The public authority consists

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<sup>28</sup> 2014 *New Building Canada Plan*, GOVERNMENT OF CANADA, <http://www.infrastructure.gc.ca/plan/nbcp-npcc-eng.html> (last updated Mar. 28, 2014). Eligible participants include all provinces, territories, and municipalities. This means that municipalities can apply directly for federal funding under the New Building Canada Plan. *See id.*

<sup>29</sup> PPP CANADA FUNDING, *supra* note 19, at 1.

<sup>30</sup> *See* TIMOTHY JOHN MURPHY & JASON J. ANNIBALE, EFFECTIVELY STRUCTURING AND MANAGING DESIGN-BUILD PROJECTS (2009), [http://www.mcmillan.ca/Files/Effectively\\_Structuring\\_and\\_Managing\\_Design-build\\_Projects\\_1109.pdf](http://www.mcmillan.ca/Files/Effectively_Structuring_and_Managing_Design-build_Projects_1109.pdf) (last visited Jan. 18, 2018). In particular, the overseeing procurement agency helps prevent design errors or

of various committees, such as a working and oversight committee, steering committee, evaluation team, financial capacity team, and project manager. The provincial steering committee oversees capital projects and guides the entire P3 process. It ensures all approvals and monitors the project budget and schedule. The steering committee approves the Value for Money (VfM) analysis (risk assessment), and the final business terms and conditions slated for the P3 agreement. Oversight committees guide the project manager for submitted procurement documents (as part of due diligence), terms and conditions, risk allocations, schedules, and budget estimates. The oversight committee refers to policy, so that the project manager may consult them on all issues affecting the P3 project. Open and fair bids are met by a disclosure requirement upon the private bidder. Disclosure provides exact details of the project, including legal, financial, and technical aspects, particularly during informational meetings. Here, technical aspects are discussed, as well as negotiations for the P3 agreement.

The project manager delivers the project and oversees the entire P3 project. This includes managing work teams, and delegating tasks to various committees. The project manager may be supported by a program ministry staff member and consultants (technical and legal). The project manager is also responsible for all documentation related to RFQs and RFPs (which forms the heart of the evaluation process), and the P3 agreement. The project manager must ensure that all approvals are made by relevant government ministries (cabinet, advisory, and capital financing), and manage all communication to interested parties. The evaluation team reviews all project proposals by applying an evaluation criteria under provincial procurement guidelines.

The individual P3 project proposals include verifying private bidders' submissions by checking references, along with preparing clarification questions for the bidder. A fairness auditor or monitor

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omissions, unforeseen site conditions, financial risks, and labor and material costs. COLUMBIA INSTITUTE, UNDERSTANDING THE CHALLENGE: PUBLIC PRIVATE PARTNERSHIPS 22 (June 2009), [http://www.civicgovernance.ca/wordpress/wp-content/uploads/columbiap3\\_eng\\_v8-webpdf.pdf](http://www.civicgovernance.ca/wordpress/wp-content/uploads/columbiap3_eng_v8-webpdf.pdf) (last visited Jan. 18, 2018). An example of a Canadian procurement agency is Ontario's Infrastructure Ontario (IO), which helps with Alternative Financing and Procurement (AFP) on large, complex public infrastructure projects. *Id.* IO's purpose is to lead the procurement process, provide documentation, receive and evaluate submissions, and negotiate and award contracts, such as P3 agreements. *FAQs: Alternative Financing and Procurement (AFP)*, INFRASTRUCTURE ONTARIO, <http://www.infrastructureontario.ca/AFP-FAQs/> (last visited Feb. 8, 2018).



reviews all transactional documents submitted by the private bidders, and attends all informational meetings where public authorities evaluate the submissions. The fairness auditor or monitor gives its opinions about the openness and fairness of the competitive bidding process from start to finish. This position, therefore, represents an internal mechanism in the procurement process to promote open and fair competition for public projects. The method of evaluating bids in the procurement process includes:

- RFQ;
- RFP; and
- Closing—P3 Agreement.

The RFQ markets the P3 to the public by encouraging participation and competition. It invites qualified bidders to make formal, detailed submissions for a P3 project. Here, the public authority announces the P3 project to attract prospective bidders and evaluates whether the private bidder is capable of meeting technical and financial requirements. The public authority asks the bidders to give disclosures on the following: design, construction, financing, operation, and maintenance. RFQ submissions include a list of all proponents (corporations or individuals), evaluation scores, reference checks, confidential documents, any conflict of interest issues, and a review of all financial submissions for compliance with P3 guidelines. The RFQ stage has an evaluation team review the submissions, produce an evaluation score, and brief the steering committee on its findings. The evaluation team can then prepare clarification questions for the project manager, who can review final submissions to eventually make recommendations. Thus, the RFQ's purpose is to ensure compliance with strict P3 standards set by a public authority.

The RFP is a method of shortlisting the bidders (from the RFQ stage) to present their technical and financial proposals, including the project concept, technology, and method of delivery. An evaluation team reviews the submissions to confirm specifics of the project, to complete reference checks, and to possibly conduct site investigations to allow proponents to assess the technical aspects of the site. The RFP allows bidders to review and comment on the draft P3 agreement. In the end, a winning bidder is chosen to complete the P3 project. Compared to the traditional procurement process, P3 procurement is faster and more

efficient. Each jurisdiction has its own time frame for RFPs and RFQs—such processes vary in length of completion.<sup>31</sup>

Canada has the one of the fastest procurement processes in the world for public infrastructure projects, averaging sixteen to eighteen months (compared to three years in the UK).<sup>32</sup> The Conference Board of Canada noted the following: “Overall, the majority of interviewees concurred with the literature that P3 projects do result in projects that are more speedily delivered than their traditional procurement counterparts.”<sup>33</sup> Indeed, the quick delivery of an asset has to do with streamlined, regulatory discipline in P3s, particularly with project bundling.<sup>34</sup> The rigorous nature of the P3 procurement stages (by way of RFQs and RFPs) encourages informed disclosure, financial and technical assessments, and testing, along with innovative and critical thinking among private partners to design and apply a project.

P3s are comprehensive, open and fair, and so allow for the development of unique project characteristics, which is essential for projects like HSR. Both the public authority and private partner can see the entire project from start to finish, and not dwell only on certain stages of development (as seen with traditional procurement). Rather, it facilitates clear strategies and addresses questions or concerns for each entity early in the planning process, until the end and beyond. To

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<sup>31</sup> See generally RESPONDING TO GOVERNMENT RFPS: A PROPONENT GUIDE TO THE REVISED REQUEST FOR PROPOSALS (RFP) CORPORATE TEMPLATE FOR THE GOVERNMENT OF BRITISH COLUMBIA 5 (Apr. 2016), [https://www2.gov.bc.ca/assets/gov/government/services-for-government-and-broader-public-sector/buy-goods-services-and-construction/how-to-buy-services/proponents\\_guide\\_to\\_responding\\_to\\_rfps.pdf](https://www2.gov.bc.ca/assets/gov/government/services-for-government-and-broader-public-sector/buy-goods-services-and-construction/how-to-buy-services/proponents_guide_to_responding_to_rfps.pdf) (last visited Feb. 8, 2018). Confidentiality of all communications between the interested parties is preserved in meetings, where confidentiality undertakings are signed by such parties to avoid public disclosure. See *Management Framework: Procurement Process*, ALBERTA INFRASTRUCTURE & TRANSPORTATION 28 (Sept. 2006), <http://www.infrastructure.alberta.ca/Content/doctype309/production/ait-p3-procurementframework.pdf> (last visited Feb. 8, 2018). This means that no project-specific information will be discussed in a public place, meetings must be held away from non-project team members, and all external communication may not occur between project team members and the general public and media. *Id.* at 30–31. Any member of the public authority found to have a prior relationship with any of the project proponents shall be excused from the evaluation process. *Id.* at 32–34.

<sup>32</sup> See GILL & DIMICK, *supra* note 6, at 19. In the city of Winnipeg, the Chief Peguis Trail project took only 18.9 months, the city of Edmonton’s Anthony Henday Drive project took 14 months, while the city of Calgary’s Stoney Trail project took only 12.5 months. *Id.* at 28.

<sup>33</sup> *Id.* at 10.

<sup>34</sup> For instance, private lenders often impose strict lending terms and conditions upon private partners involved in public infrastructure project development. *Id.* at 13. Such conditions include risk assessments and specific mitigation deadlines. *Id.*

support this streamlined process, there is a system of checks and balances with an open line of communication to address key issues.

### **C. Value for Money (VfM) and Risk Assessments**

Before public authorities contemplate moving forward with any P3 project, they must compare costs between traditional procurement and P3s. This comparison is the VfM analysis. The purpose of the VfM is to compare total project costs of traditional procurement (as the public comparator) with P3s.<sup>35</sup> The difference in costs between these two types of projects is the VfM. VfM includes quantitative and qualitative measures and risk allocation (e.g., construction costs, scheduling), goals and outcomes of the project, payment schedules for the private partner, compliance monitoring, information about the winning bidder, financial information (total of capital), and technical consultations. The important thing is that VfM estimates project costs for the entire lifecycle of the project, giving certainty to all interested parties.

The VfM analysis includes risk assessments because it helps all participants see the big picture from start to finish. A risk is defined as “any uncertain but quantifiable consequence of an activity,” perceived either as costs or benefits.<sup>36</sup> Once all project risks are determined, their impacts on the projects makes it easier for private bidders to assess their own capacity to pursue the project (both technically and financially), and for the public authority to determine cost—both direct costs of capital, legal, and technical expenditures, as well as administrative and overhead expenses.<sup>37</sup> In a standard P3 transportation project, common sources of risk include: land acquisition, fluctuating design, construction and operations costs, encashment costs (for ensuring that users pay), complications from public access concerns, budgetary

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<sup>35</sup> DAWN BIDNE ET AL., THE VALUE OF MONEY ANALYSIS 4, <http://www.ncppp.org/wp-content/uploads/2013/03/PS-051012ValueForMoney-paper.pdf> (last visited Jan. 14, 2018). The Value for Money (VfM) uses assumptions about the future economy, probability risk assessment, financial modeling, and sensitivity analysis. *Id.* at 9. Risk modeling software is often used to assess risks, where risks are quantified by formulas. *Id.* at 10.

<sup>36</sup> ORG. FOR ECON. CO-OPERATION & DEV., TRANSP. INFRASTRUCTURE INV.—OPTIONS FOR EFFICIENCY 121 (2008), [https://www.fhwa.dot.gov/ipd/pdfs/infrastructure\\_report\\_070625.pdf](https://www.fhwa.dot.gov/ipd/pdfs/infrastructure_report_070625.pdf).

<sup>37</sup> CANADIAN COUNCIL FOR PUBLIC PRIVATE PARTNERSHIPS, PUBLIC PRIVATE PARTNERSHIPS: A GUIDE FOR MUNICIPALITIES 17, 27, <http://www.p3canada.ca/~media/english/resources-library/files/p3%20guide%20for%20municipalities.pdf> (last visited Jan. 14, 2018).

complexities, uncertainty arising from changing policies and laws, environmental roadblocks, unpredictable weather events, and variances in utility fees, relocation costs, and interest rates.<sup>38</sup>

There are also site risks (regarding roadblocks arising from historical and environmental restrictions or from general suitability), demand risks, asset ownership contracts, and industrial relations. Once these risks are determined, the public authorities can transfer the risks to the private sector. Here, the private partner accepts the risks based on their own area of expertise, reiterating why evaluations of qualified bidders is so important. Assessing risks of a P3 project includes VfM, which is an overall financial assessment of the procurement process for a specific project.<sup>39</sup>

In P3s, payment is withheld by the public authority until the private partner delivers the asset.<sup>40</sup> Such payments are called “availability payments,” where the private partner is paid by completing the project, and then maintaining its operation for public use.<sup>41</sup> That is, the private partner does not receive payment up and until completion of the public project—payment to them is based on availability and use of the public service (e.g., direct user fees or road tolling). The payment reimburses capital expenditures incurred by the private partner. So, the private partner can expect revenue flows because the public asset is long-term in nature.

Managerial control is given to the private partner. Alexandersson and Hultén noted that in P3s: “[T]here is a general consensus that

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<sup>38</sup> See CITY OF EDMONTON, OFFICE OF THE CITY AUDITOR, P3 BENEFITS AND RISKS 6–7, 9–12, (June 9, 2008) [https://www.edmonton.ca/city\\_government/documents/PDF/08246\\_P3\\_Benefits\\_and\\_Risks.pdf](https://www.edmonton.ca/city_government/documents/PDF/08246_P3_Benefits_and_Risks.pdf) (last visited Jan. 18, 2018).

<sup>39</sup> According to the UK Treasury, VfM is defined as “the optimum combination of whole-of-life costs and quality (or fitness for purpose) of the good or service to meet the user’s requirement.” It is not the lowest cost of the project. See generally Matti Siemiatycki, *Is There a Distinctive Canadian PPP Model? Reflections on Twenty Years of Practice*, CBS-SAUDER-MONASH 7-8 (Feb. 25, 2015), [http://www.sauder.ubc.ca/Faculty/Research\\_Centres/Phelps\\_Centre\\_for\\_the\\_Study\\_of\\_Government\\_and\\_Business/Events/UBC\\_P3\\_Conference/~media/Files/Faculty%20Research/Phelps%20Centre/2013%20P3%20Conference/Papers/s6%20%20Siemiatycki%20Is%20There%20a%20Distinctive.as.hx](http://www.sauder.ubc.ca/Faculty/Research_Centres/Phelps_Centre_for_the_Study_of_Government_and_Business/Events/UBC_P3_Conference/~media/Files/Faculty%20Research/Phelps%20Centre/2013%20P3%20Conference/Papers/s6%20%20Siemiatycki%20Is%20There%20a%20Distinctive.as.hx).

<sup>40</sup> PPP CANADA, About P3s: Frequently Asked Questions—How do P3s Work?, <http://www.p3canada.ca/en/about-p3s/frequently-asked-questions/> (last visited Jan. 12, 2018).

<sup>41</sup> XINYUAN ZHU & QINGBIN CUI, AVAILABILITY PAYMENT DESIGN IN PUBLIC PRIVATE PARTNERSHIP, <https://www.pomsmeetings.org/confpapers/051/051-1218.pdf> (last visited Jan. 12, 2018). See also PAMELA BAILEY-CAMPBELL, AVAILABILITY PAYMENTS: WHAT CAN WE LEARN FROM SURFACE TRANSPORTATION PROJECTS?, LEIGH FISHER, [http://acina.org/sites/default/files/pamela\\_campbell.pdf](http://acina.org/sites/default/files/pamela_campbell.pdf) (last visited Jan. 12, 2018).

private firms are better than the public sector to manage construction and market risk and project time—if they are in charge of a project.<sup>42</sup> Private partners already have expertise in dealing with public projects. Their interest is based on the long-term delivery of the public asset—they know it will generate revenue with public use. Therefore, the flexible P3 arrangement encourages partners to provide capital investment into projects. This is why most public infrastructure projects in Canada are completed by the private sector.<sup>43</sup>

#### *D. P3 Agreements*

A P3 agreement is a set of terms and conditions between public and private entities to build public assets.<sup>44</sup> It outlines key technical, legal, and financial issues that arise during the procurement process, and addresses all performance standards during each stage of development. Some essential clauses in a P3 agreement include:

- TERM
  - Duration of the P3 project (from design and building to construction and operations/maintenance)—usually long-term (twenty to forty years)
- FINANCING
  - The private partner must secure adequate financing (e.g., debt financing)
- DUTIES
  - The duties of the private partner are set out:

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<sup>42</sup> Alexandersson & Hultén, *supra* note 13, at 101.

<sup>43</sup> Approximately eighty-five percent of public assets are delivered by the private sector. See generally GILL & DIMICK, *supra* note 6, at 34.

<sup>44</sup> In the context of public asset developments, there are four types of P3 contracts: (1) divestments of public property or businesses to the private sector; (2) greenfield investments (e.g., toll motorways); (3) service contracts that include promises on investments; and (4) concessions, licenses, and franchise agreements (ten to thirty years). Alexandersson & Hultén, *supra* note 13, at 98. Standard clauses in a P3 agreement include: (1) Term/Concession; (2) Regulatory Review (Procurement); (3) Stages of Development (Design/Construction/Completion); (4) Payments; (5) Labour; (6) Financing; (7) Insurance/Indemnification; (8) Representations/Warranties; (9) Default/ Remedies; (10) Intellectual Property; (11) Assignment/Transfer; (12) Termination; and (13) Dispute Resolution. See Matthew R. Alter et al., *Construction and Projects in Canada: Overview*, PRACTICAL LAW COUNTRY Q&A (Sept. 1, 2016), [https://ca.practicallaw.thomsonreuters.com/Document/1020626ed1cb611e38578f7ccc38dcbee/View/FullText.html?originationContext=knowHow&transitionType=KnowHowItem&contextData=\(sc.Default\)&firstPage=true&bhcp=1](https://ca.practicallaw.thomsonreuters.com/Document/1020626ed1cb611e38578f7ccc38dcbee/View/FullText.html?originationContext=knowHow&transitionType=KnowHowItem&contextData=(sc.Default)&firstPage=true&bhcp=1).

- ♦ Complete the design and building of the project by a deadline
- ♦ Finance (or partially finance) building of the project (over the contract's term)
- ♦ Operations/maintenance and rehabilitation services for the project to comply with quality and performance standards
- QUALITY AND PERFORMANCE STANDARDS
  - The private partner must fulfill quality of design, materials, and technology, and perform to meet the standards set by the public authority
- PAYMENTS
  - Once the project is completed and open to the public, the public authority begins making installment (monthly) payments to the private bidder
- PENALTIES FOR NON-PERFORMANCE (BREACH)
  - If the private partner fails to deliver the public asset by a deadline, or fails to meet technical requirements, severe penalties are assessed and enforced—often as reductions in monthly capital payments
- REVERSION
  - Ownership of the project reverts back to the public authority, but operations/maintenance continues by the private partner.

There are clauses for “quality and performance monitoring.” Here, independent consultants and committees representing the public authority oversee the design and building of the project to ensure safety and quality are observed by the private partner.<sup>45</sup> This ensures the public sector receives value throughout the P3 term. An example of quality and performance monitoring is in Alberta, where the Treasury Board requires the procurement agency to publish a P3 project report within six months after executing the P3 agreement.<sup>46</sup> Such procedures allow the proponents to discuss terms and conditions in the P3 agreement. Final submissions from participants are reviewed for their completeness and compliance with procurement guidelines.<sup>47</sup>

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<sup>45</sup> ALBERTA TREASURY BOARD, ALBERTA'S PUBLIC-PRIVATE PARTNERSHIP FRAMEWORK & GUIDELINE 20–21, 24 (Mar. 2011), [www.infrastructure.alberta.ca/Alberta-P3-Framework-and-Guideline.docx](http://www.infrastructure.alberta.ca/Alberta-P3-Framework-and-Guideline.docx) (last visited Jan. 12, 2018).

<sup>46</sup> Lindsay McGlashan, *Public-Private Partnerships: Are Canadians Getting the Full Picture?*, 2015-50-E LIBR. OF PARLIAMENT IN BRIEF 5 (June 26, 2015), <http://www.lop.parl.gc.ca/Content/LOP/ResearchPublications/2015-50-e.html?cat=economics>.

<sup>47</sup> ALBERTA TREASURY BOARD, *supra* note 45, at 70.

If targets are not met, the private partner is penalized.<sup>48</sup> Conversely, if the partner meets targets (and beyond), it is paid the full fee—a healthy incentive. Thus, payment to the private partner is tied to compliance monitoring of the public asset. The P3 agreement also contains clauses for financial incentives, such as payment structures and tax credits. These include payments structured as: (1) yearly payments; (2) availability payments (based on performance standards and milestones); or (3) concessions (based on user fees from ticket prices and track access charges).<sup>49</sup> The P3 agreement ends upon completion of the public project, and the asset reverts back to the government.<sup>50</sup> So, P3s do not represent the outright privatization of a public asset—eventually the public asset becomes *public*. The private partner never owns the public asset—it has a license to keep the asset during the term of the P3 project. Even partial payments are made to the private partner upon substantial performance or completion of the project. P3 agreements are not structured instantly. Rather, the contract is negotiated throughout the lifecycle of the project—from the beginning of the procurement process, well into the stages of development.<sup>51</sup> This provides comprehensiveness and flexibility in that private partners can adapt to the surrounding circumstances.

## V

### MUNICIPAL P3S AND POLICIES

If there is any possibility to develop HSR in Canada, one must consider the role of municipalities. Municipalities play a large role in P3s for transportation projects, guided by the provincial procurement

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<sup>48</sup> Charles Lamman, Hugh MacIntyre & Joseph Berechman, *Using Public Private Partnerships to Improve Transportation Infrastructure in Canada* iv (May 30, 2013), <https://www.fraserinstitute.org/studies/using-public-private-partnerships-to-improve-transportation-infrastructure-canada> (last visited Feb. 8, 2018).

<sup>49</sup> Silviu Dochia & Michael Parker, *Introduction to Public-Private Partnerships with Availability Payments*, JEFFREY A. PARKER & ASSOCS., INC. 1, [http://www.pwfinance.net/document/research\\_reports/9%20intro%20availability.pdf](http://www.pwfinance.net/document/research_reports/9%20intro%20availability.pdf) (last visited Jan. 13, 2018). *See also* AON INFRASTRUCTURE SOLUTIONS, PAYMENT MECHANISM: THE FIRST FORM OF RISK TRANSFER IN PUBLIC-PRIVATE PARTNERSHIPS 1 (Sept. 2014), [http://www.aon.com/attachments/risk-services/AIS\\_Payment-Mechanism-White-Paper.pdf](http://www.aon.com/attachments/risk-services/AIS_Payment-Mechanism-White-Paper.pdf) (last visited Jan. 13, 2018).

<sup>50</sup> CANADIAN COUNCIL FOR PUBLIC PRIVATE PARTNERSHIPS, *supra* note 37, at 7.

<sup>51</sup> ALBERTA TREASURY BOARD, *supra* note 45, at 43, 44.

process to fit their local interests.<sup>52</sup> Municipalities also receive provincial and federal P3 funding, which means that all levels of government coordinate in public asset development.<sup>53</sup> The responsible public authority (federal or provincial) usually works with municipalities to “project bundle”—municipalities may not have the finances and resources to merge all stages of development on designated projects.<sup>54</sup> Municipal P3s are directly funded by the federal P3 Canada Fund, a method to encourage municipalities to engage in project bundling.<sup>55</sup> The direct funding of municipalities for P3s allows municipalities to better manage all stages of development, particularly the operation and maintenance stages.

A promising aspect of municipal P3s is light rail transit (LRT) projects. Since LRT projects are similar to HSR in design, planning, technology, resources, and delivery, P3s may be a sensible choice. This does not suggest that public authorities should superimpose LRT P3s with HSR P3s. Rather, the P3 should be tailored to HSR issues. Since high-speed trains would link between municipalities as part of a larger, regional hub that promotes transportation sustainability and economic development (by way of tourism and business convenience), the scale of development will be broader. To meet this logistical challenge, P3s can be used for HSR development because they will coordinate all levels of government (and the private sector) to combine their financial, technical, and legal resources. In this sense, it is highly unlikely that traditional procurement can achieve this objective.

Municipal P3 policies and bylaws are fully supported by the federal P3 agency (PPP Canada) in promoting adaptive strategies to help municipalities in building public infrastructure. PPP Canada provides twenty-five percent funding (through the P3 Canada Fund), as well as

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<sup>52</sup> Municipalities generally fall below \$60 million for P3 projects, but transportation-related P3s cost more. *See generally* GILL & DIMICK, *supra* note 6, at 44.

<sup>53</sup> In Canadian constitutional law, intraprovincial matters (local works) fall under provincial jurisdiction under section 92(10)(a) of the Constitution Act (1867), while interprovincial regulation of trade and commerce matters fall under section 91(2) of the same Act. Joseph Magnet, *Residuary and Emergency Powers*, CONSTITUTIONAL LAW OF CANADA, [http://www.constitutional-law.net/index.php?option=com\\_content&view=article&id=15&Itemid=29](http://www.constitutional-law.net/index.php?option=com_content&view=article&id=15&Itemid=29) (last visited Jan. 14, 2018).

<sup>54</sup> CANADIAN COUNCIL FOR PUBLIC-PRIVATE PARTNERSHIPS, P3 PROJECT BUNDLING ROUNDTABLE BRIEFING, <https://www.pppcouncil.ca/web/pdf/briefing-paper-p3-bundling.pdf> (last visited Jan. 18, 2018). *See, e.g.*, Don Wall, *Massive Saskatchewan Project Highlighted as P3 Bundling Success*, J. COMMERCE, <https://canada.constructconnect.com/joc/news/projects/2017/11/massive-saskatchewan-project-highlighted-as-p3-bundling-success-1028517w> (last visited Jan. 18, 2018).

<sup>55</sup> CANADIAN COUNCIL FOR PUBLIC PRIVATE PARTNERSHIPS, *supra* note 37, at 18.



expert advisory services and consultants, to assist municipalities (particularly jurisdictions inexperienced with P3s) in building complex transportation projects.<sup>56</sup> Indeed, there is an increasing number of Canadian municipalities adopting P3 policies and guidelines. For instance, the cities of Calgary, Edmonton, St. Albert, Regina, Winnipeg, and Ottawa have their own P3 policies and bylaws.

In 2008, the city of Calgary adopted P3 policies that provide that: (1) the public interest is paramount; (2) public control must be preserved; (3) accountability must be maintained; (4) the project is a public priority; (5) the P3 procurement process must be competitive, transparent, equitable, and timely; and (6) the P3 delivery model must provide best VfM over the project life cycle, considering risk transfer, innovation and community issues.<sup>57</sup> In 2010, the city of Edmonton created P3 policies that suggest the following: (1) deliver improved services through best allocation of risks, rewards, and resources; (2) create clear outcomes; (3) leverage private sector expertise and innovation through competitive and transparent process; (4) create certainty of costs, schedule, and quality; and (5) the P3 shall apply to large-scale public infrastructure projects.<sup>58</sup> Overall, both cities reflect their emphasis on promoting open, fair, and competitive P3 procurements that serve the public interest in giving certainty and meeting clear objectives.

Such policies and bylaws provide a set of best practices to ensure a streamlined P3 procurement process. They also ensure project governance with accurate upfront planning, even with private sector involvement.<sup>59</sup> Thus, for complex P3s (like HSR), municipalities are poised for development with support of a federal regulatory framework. This federally-funded municipal framework means the transfer of enough risks to the private sector by adopting a whole life cycle approach (project bundling), paying based on performance, and specifying what the municipality wants for the project.

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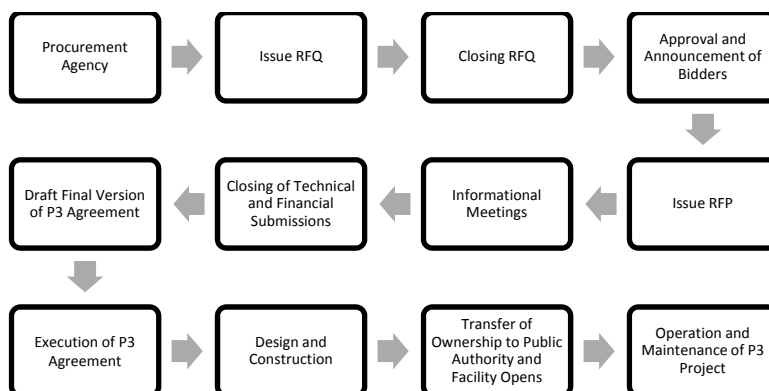
<sup>56</sup> PPP Canada, *P3 Canada Fund*, <http://www.p3canada.ca/en/p3-canada-fund/the-p3-canada-fund/> (last visited Jan. 14, 2018).

<sup>57</sup> CANADIAN COUNCIL FOR PUBLIC PRIVATE PARTNERSHIPS, *supra* note 37, at 69.

<sup>58</sup> *Id.*

<sup>59</sup> The city of Edmonton has a Governance Board, consisting of government and private experts to oversee its upcoming LRT project. John McBride, *Municipal P3s: Exploring the Success Factors* (Apr. 2014), <https://www.publicsectordigest.com/article/municipal-p3s-exploring-success-factors>.

Figure 2: Detailed Procurement Process using P3s



## VI

### CANADIAN EXAMPLES OF P3S FOR PUBLIC TRANSPORTATION INFRASTRUCTURE

To build HSR in Canada, it is necessary to draw from successful P3s in roadways and LRT. Three noteworthy examples are: (1) Edmonton's Anthony Henday Ring Road, (2) Edmonton's ValleyLine LRT, and (3) Winnipeg's Chief Peguis Trail Extension. These examples reveal how P3s helped build major roadways and a LRT system, showing the true value of the P3 model.

#### *A. Edmonton's Anthony Henday Ring Road*

In January 2005, the city of Edmonton announced a P3 project for a major roadway to relieve traffic congestion in the southeast portion of the city with a ring road consisting of eleven kilometers of highway, twenty-four bridges, and five interchanges.<sup>60</sup> This represents one of Canada's first major municipal P3 projects to build a motorway. This \$493 million CAD project is a thirty-three year design-build-finance-

<sup>60</sup> The project, called the Anthony Henday Drive, covers eleven kilometers of a four and six-lane motorway, built with crossroads, access roads, five interchanges, and twenty-four bridges. Press Release, Gov't of Alberta, P3 Enables Anthony Henday Drive S.E. to Open in 2007 (Jan. 25, 2005), <https://www.alberta.ca/release.cfm?xID=17518283FCDE1-8C4E-4EB3-A93F13E86CE3C94F>.

operate (DBFO) type of P3 arrangement (reversion in 2046).<sup>61</sup> The public authority, Alberta Infrastructure and Transportation (AIT) signed a P3 agreement in 2005 with a private consortium, Access Roads Edmonton Ltd. (AREL).<sup>62</sup> The procurement process only had a seventeen month timeline after the initial Request for Qualification (RFQ).<sup>63</sup> The RFQ was issued globally to see which companies were capable of working on the project.

As such, the procurement process had three pre-qualified bidders who then completed a highway design, pricing plan, and financing plan. In the interim, a P3 agreement was negotiated with the bidders prior to finalizing the proposals. The consortium clearly stated the level of risk transfer and availability payments and helped avoid significant delays in pursuing the motorway project. From start to finish, the entire P3 project was completed in less than two years.<sup>64</sup>

The P3 was advantageous because the initial capital costs for the roadway were financed by a private consortium, which meant no public spending occurred until completion of the project.

<b>Project: Anthony Henday Ring Road</b>	• P3 Model:	DBFOM (Design-Build-Finance-Operate/Maintain)
	• P3 Agreement:	34.5 years
	• Delivery of Asset:	3 years earlier
	• Cost Savings:	\$371 million
	• Date Completed:	October 1, 2016

<sup>61</sup> CONFERENCE BOARD OF CANADA, *DISPELLING THE MYTHS: A PAN-CANADIAN ASSESSMENT OF PUBLIC-PRIVATE PARTNERSHIPS FOR INFRASTRUCTURE INVESTMENTS* 48 (Jan. 2010), [http://www.partnershipsbcc.ca/wp/wp-content/uploads/2017/03/Conference-Board-of-Canada-Report-Dispelling-the-Myths-DispellingTheMythsRpt\\_WEB.pdf](http://www.partnershipsbcc.ca/wp/wp-content/uploads/2017/03/Conference-Board-of-Canada-Report-Dispelling-the-Myths-DispellingTheMythsRpt_WEB.pdf). See also Press Release, Government of Alberta (Jan. 25, 2005), <https://www.alberta.ca/release.cfm?xID=17518283FCDE1-8C4E-4EB3-A93F13E86CE3C94F> (last updated Jan. 28, 2005).

<sup>62</sup> CONFERENCE BOARD OF CANADA, *supra* note 61, at 47.

<sup>63</sup> ALBERTA TRANSPORTATION, *REQUEST FOR QUALIFICATION FOR THE DESIGN, BUILD, FINANCE, OPERATE OF ANTHONY HENDAY DRIVE 10–18*, [http://www.transportation.alberta.ca/Content/docType353/Production/AHD\\_RFQ.pdf](http://www.transportation.alberta.ca/Content/docType353/Production/AHD_RFQ.pdf) (last visited Jan. 18, 2018).

<sup>64</sup> The dates are as follows: (1) September 2003 (RFQ was issued); (2) March 2004 (three teams selected to submit proposals); (3) November 2004 (final proposal submission); (4) December 2004 (lowest bidder chosen); (5) January 2004 (P3 contract signed). See Press Release, *supra* note 60.

### *B. Edmonton's Valley Line LRT*

The Valley Line LRT project represents a good example of how a P3 helped build a municipal LRT project. The plan connects the southeast portion of Edmonton to the west end, with an estimated daily ridership of 28,000 passengers.<sup>65</sup> This project is set as a design-build-finance-operate/maintain (DBFOM) model, and has a 4.8-year construction period from February 2016 to December 2020. The public authority includes the city of Edmonton, the province of Alberta, and the Canadian government. The private partner chosen was TransEd Partners, a consortium consisting of equity investors, lenders,<sup>66</sup> design and construction firms, and operations/maintenance firms.

The city of Edmonton applied to P3 Canada (federal agency) for partial funding because the Valley Line project is designated as “public transit infrastructure.”<sup>67</sup> Edmonton’s application to P3 Canada shows how municipalities integrate with the federal P3 framework, and how strong federal funding supports municipalities. Eventually, P3 Canada awarded \$400 million, but only for the construction of the southeast portion of the LRT line. A crucial component of this project was public consultation. In 2009, affected communities, citizens, and businesses provided feedback, which the city of Edmonton relayed to the private partner.<sup>68</sup> This suggests an open and fair process outside of the procurement process, normally subjected to private bidders, where the ultimate design of the LRT line reflects community feedback.

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<sup>65</sup> The project also includes the construction of a bridge, a 350-meter tunnel, and an operations/maintenance facility for the new line. *About P3s: Edmonton Light Rail Transit System (Edmonton, AB), Project Description*, <http://www.p3canada.ca/en/about-p3s/project-map/edmonton-light-rail-transit-system/> (last visited June 10, 2017). It is estimated that the daily ridership for this line shall increase to 49,000 passengers by 2044. *Id.* The timeline for this project was as follows: in 2011, a recommendation of the P3 method was made to Edmonton City Council; in 2012, City Council approved a funding strategy to expand LRT from Millwoods (southeast) to Lewis Farms (west end). CITY OF EDMONTON, VALLEY LINE LRT, STAGE 1 BETWEEN DOWNTOWN AND MILLWOODS 5, [https://www.edmonton.ca/documents/RoadsTraffic/valley\\_line\\_lrt\\_booklet.pdf](https://www.edmonton.ca/documents/RoadsTraffic/valley_line_lrt_booklet.pdf) (last visited Jan. 18, 2018). The first part of this line will connect the southeast with downtown—around 13.2 kilometers or 8 miles. *Id.*

<sup>66</sup> The lenders include Bank of Nova Scotia, Royal Bank of Canada, and Sumitomo Mitsui Banking Corporation. KPMG, VALLEY LINE LRT - STAGE 1: VALUE FOR MONEY REPORT CITY OF EDMONTON (Apr. 7, 2016), <http://www.p3canada.ca/~media/english/resources-library/files/valleyline-valueformoneyreportapril%202016.pdf>.

<sup>67</sup> VALLEY LINE LRT, STAGE 1, *supra* note 65, at 1–10.

<sup>68</sup> *Id.* at 5.

The VfM identified several risks to help estimate costs.<sup>69</sup> The city of Edmonton’s P3 policies requires performance standards to be met for all stages of development in a public project.<sup>70</sup> Any failure to deliver the public asset on time and on budget reduces the return for the private partner and holds the private partner accountable for failing to meet minimum performance standards.<sup>71</sup> The Valley Line LRT project remains with the city of Edmonton as a reversionary interest; the private partner is only given a license for the term of the P3 agreement to design, build, operate and maintain it.<sup>72</sup> The P3 agreement outlined specific duties for both the public authority and private partner.<sup>73</sup> The private partner finances a portion of the design and building costs, including testing the facilities.<sup>74</sup> It must supply light rail vehicles and maintain and rehabilitate services over the thirty-year period.<sup>75</sup> The public authority makes payments during the construction and operating period in a timely manner.<sup>76</sup> It must install all ticket vending machines, monitor the performance of the private partner, and provide security services and signage.<sup>77</sup>

<b>Project: Valley Line LRT</b>	• P3 Model:	DBFOM (Design-Build-Finance-Operate/Maintain)
	• P3 Agreement:	34.5 years
	• Delivery of Asset:	To be determined
	• Cost Savings:	3 to 10 percent
	• Date Completed:	2020

<sup>69</sup> KPMG, *supra* note 66, at 19–21 (Risks included design, LRT vehicle supply and infrastructure, land acquisition, utility relocation, Gerry Wright Operations, ticket vending machines, bus infrastructure, environmental permits, contamination, geotechnical site conditions, roadway signals, landscaping, snow removal, energy, and financing.).

<sup>70</sup> VALLEY LINE LRT, STAGE 1, *supra* note 65, at 17.

<sup>71</sup> CITY OF EDMONTON, PROJECT AGREEMENT, VALLEY LINE LRT STAGE 1 27, <https://www.edmonton.ca/documents/RoadsTraffic/Project%20Agreement%20Valley%20Line%20LRT.pdf> (last visited Jan. 18, 2018).

<sup>72</sup> *Id.* at 6, 76.

<sup>73</sup> *See id.* at 1–37.

<sup>74</sup> *Id.* at 7–8.

<sup>75</sup> *Id.*

<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

The Valley Line LRT project serves as the closest P3 model to HSR development. If all levels of government work with a qualified private consortium to create an LRT system, and if there is a comprehensive P3 agreement covering train-related issues, then it is likely possible to create a similar HSR project. It is merely a matter of extending LRT projects to a larger scale.

### *C. Winnipeg's Chief Peguis Trail Extension*

Winnipeg's Chief Peguis Trail Extension is another successful P3. The \$127.9 million project added ten kilometers to a major roadway, and used a design, build, finance (DBF) model.<sup>78</sup> It was also completed much earlier than anticipated and funded by three sources—the federal P3 Canada Fund, the Province of Manitoba, and the City of Winnipeg.<sup>79</sup> The RFQ was issued on February 27, 2009.<sup>80</sup> Later, three prospective bidders were chosen and the RFP was issued in September 2009.<sup>81</sup> The RFP identified the winning consortium as DBF2 Limited Partnership, consisting of seven companies.<sup>82</sup> The P3 agreement was signed on September 17, 2010, and a public consultation was later held in March 2011, with members of the private consortium present to answer questions about the project.<sup>83</sup>

The project officially opened on December 2, 2011, took only thirty-three months to complete and finished one year ahead of schedule.<sup>84</sup> Overall, this P3 project saved \$31 million, a large amount compared to same public project engaged in the traditional procurement model.<sup>85</sup> The fairness advisor confirmed that the P3 procurement process was open, fair, and competitive.<sup>86</sup> The Chief Peguis Trail Extension

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<sup>78</sup> City of Winnipeg Public Works, *Chief Peguis Trail Extension West*, <http://www.winnipeg.ca/publicworks/construction/projects/chiefpeguiswest.stm#tab-documents> (last visited Jan. 18, 2018). See also BRUCE BIGLOW, CHIEF PEGUIS TRAIL: P3 CONSTRUCTION 5 (June 2012), <http://conf.tac-atc.ca/english/annualconference/tac2012/docs/session6/biglow.pdf>.

<sup>79</sup> BIGLOW, *supra* note 78.

<sup>80</sup> *Id.*

<sup>81</sup> *Chief Peguis Trail Extension Project - Phase 1 Complete*, WINNIPEG PUBLIC WORKS (Jan. 15, 2016), <http://www.winnipeg.ca/publicworks/construction/pastProjects/chiefPeguisTrail/procurement.stm> (The RFQ closing date was May 11, 2009).

<sup>82</sup> BIGLOW, *supra* note 78.

<sup>83</sup> *Id.*

<sup>84</sup> PPP Canada, *About P3s: Chief Peguis Trail Extension*, <http://www.p3canada.ca/en/about-p3s/project-map/chief-peguis-trail-extension/> (last visited Jan. 18, 2018).

<sup>85</sup> *Id.*

<sup>86</sup> *Id.*

succeeded because of project bundling, which allowed for early construction, identification of risks transferring from the public authority to the private partner consortium, and making the procurement process open, fair, and efficient. The advantage of project bundling is that all stages of development for the P3 project are merged into one comprehensive plan. This created certainty for the private consortium, as clear tasks were set along the way. Project bundling united all three levels of government to achieve its goal of building a major public roadway for Winnipeg to relieve traffic congestion.

**Project: Chief  
Peguis Trail  
Extension**

- |                      |                                      |
|----------------------|--------------------------------------|
| • P3 Model:          | DBFM (Design-Build-Finance-Maintain) |
| • P3 Agreement:      | 30 years                             |
| • Delivery of Asset: | 1 year earlier                       |
| • Cost Savings:      | \$31 million                         |
| • Date Completed:    | December 2, 2011                     |

## VII INTERNATIONAL EXAMPLES OF P3S IN HSR—NETHERLANDS, TAIWAN, AND CALIFORNIA

Venturing into new territory for projects like HSR requires one to draw from international P3 experiences, particularly in nations using HSR. What lessons can be learned from such nations? Surveying the literature, it appears that the results for P3s are mixed for HSR development. Two jurisdictions with negative P3 experiences, Netherlands and Taiwan, teach what to avoid in future HSR developments, while California demonstrates a positive experience with its current development of HSR.<sup>87</sup> These findings also suggest that P3s are not a panacea in themselves—they must be tailored to HSR

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<sup>87</sup> TONY DUTZIK ET AL., HIGH-SPEED RAIL: PUBLIC, PRIVATE OR BOTH?: ASSESSING THE PROSPECTS, PROMISE, AND PITFALLS OF PUBLIC-PRIVATE PARTNERSHIPS, U.S. PIRG EDUCATION FUND 2 (July 19, 2011), <http://www.uspirg.org/sites/pirg/files/reports/HSR-PPP-USPIRG-July-19-2011.pdf>. For instance, one commentator noted that: “[t]he experience with high-speed rail PPPs around the world, however, has been mixed. While PPP arrangements have brought private capital and expertise to the task of building high-speed rail, PPPs have also resulted in cost overruns, government bailouts, and other serious problems for the public.” *Id.* at 1.

issues. Even so, the P3 approach is becoming a fresh alternative in helping build new, innovative public works like HSR. From these comparative P3 perspectives, we can assemble the raw ingredients to synthesize a P3 procurement process to build HSR in Canada.<sup>88</sup>

### A. Netherlands

The Netherlands has a high-speed rail known as the HSL-Zuid Line, a 125-km track linking Amsterdam and Rotterdam to Belgium.<sup>89</sup> The public owner is the Dutch Ministry of Transport, while the private operator is NS Hispeed (NS and KLM).<sup>90</sup> There are three components to the project: (1) building of the substructure (tunnels, bridges, and concrete slabs) by civil contractors; (2) giving the superstructure to the Infrasppeed Consortium to design, build, finance, operate and maintain the system's tracks, stations, and signaling for twenty-five years; and (3) operations.<sup>91</sup> Built in 2007 and beginning operations in 2009, the HSL-Zuid Line project was based mostly on public funds, with only fourteen percent drawn from private investment.<sup>92</sup> For speed and efficiency, the Dutch government divided the P3 agreement into eight packages with various civil contractors for the design and construction phases.

The project required the consortium to handle signaling systems, traction and power supply, command and control systems, ancillary

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<sup>88</sup> See PRICEWATERHOUSECOOPERS, *supra* note 2, at 45 (Those EU member states with the most comprehensive P3 legislation are Belgium, France, Italy, Spain, Portugal, Germany, Ireland, Greece, Finland, Czech Republic, Latvia, Poland, Romania and Turkey.). See generally AKINTOLA AKINTOYE, MATHIAS BECK, & MOHAN KUMARASWAMY, PUBLIC PRIVATE PARTNERSHIPS—A GLOBAL REVIEW (Routledge ed., 2015).

<sup>89</sup> *High Speed Railway Operated by Nederlandse Spoorwegen*, RAILWAY TECHNOLOGY, <https://www.railway-technology.com/projects/zuid/> (last visited Jan. 18, 2018).

<sup>90</sup> OMEGA CENTRE, UCL PROJECT PROFILE: NETHERLANDS HSL-ZUID 7 (2014), [http://www.omegacentre.bartlett.ucl.ac.uk/wp-content/uploads/2014/12/NETHERLANDS\\_HSL\\_ZUID\\_PROFILE.pdf](http://www.omegacentre.bartlett.ucl.ac.uk/wp-content/uploads/2014/12/NETHERLANDS_HSL_ZUID_PROFILE.pdf) (last visited June 7, 2017). The objectives of the HSL-Zuid were: (1) link the ports of Rotterdam, Schiphol, and Amsterdam to the Trans European Network of high-speed trains; (2) boost economic development; (3) reduce car traffic; and (4) have trains travel at 300 km/h. *Id.* at 20. In 2006, the total cost of the project was estimated at €6.9 billion (Euro). *High Speed Railway Operated by Nederlandse Spoorwegen*, *supra* note 89.

<sup>91</sup> AECOM, HIGH SPEED RAIL STUDY: PHASE 2 REPORT 83 (Mar. 2013), [https://infrastructure.gov.au/rail/trains/high\\_speed/files/HSR\\_Phase\\_2\\_Appendix\\_Group\\_7\\_Procurement\\_institutional\\_appraisal\\_and\\_implementation\\_plan.pdf](https://infrastructure.gov.au/rail/trains/high_speed/files/HSR_Phase_2_Appendix_Group_7_Procurement_institutional_appraisal_and_implementation_plan.pdf). This P3 project was maintained by the High Speed Alliance, ninety percent owned by the Dutch state railway (NS), with ten percent owned by Air France-KLM in a joint venture. DUTZIK ET AL., *supra* note 87, at 10.

<sup>92</sup> DUTZIK ET AL., *supra* note 87, at 23.



equipment, telecommunications, rail track, noise barriers, and easement (right of way) fencing. The P3 agreement was signed for a thirty-year period. Here, Infrasppeed was obligated to build the line for the first five years and maintain it for the remaining twenty-five years.<sup>93</sup> An interesting feature of the P3 agreement was its Requirement Compliance Matrix, containing 585 requirements before the consortium could obtain a Certificate of Availability.<sup>94</sup>

Critical mistakes were made throughout the P3 project. First, during the substructure phase the Dutch government was unable to transfer sufficient risks to the private sector, which resulted in the government using the traditional procurement model. Second, the Dutch government relied on the winners of three contract bids for three separate projects to communicate with one another, without administrative oversight to ensure compliance with P3 standards. Third, the bids for the substructure were up to forty-three percent higher than anticipated, as Infrasppeed's project bid was based on engineering designs that changed during the bidding process. A lack of competition in the Dutch construction market, along with collusional bidding among the consortia also contributed to higher bids. The higher costs required the Dutch government to cut back on the designs and seek lower bids by eliminating penalties against late completion of the substructure (something that ordinarily disciplines a private partner under a standard P3). Fourth, there was not one public authority governing the P3, but two administrative agencies overlooking the entire project with various contractors. The contractors failed to communicate among themselves as to the specifics of the project. Overall, these errors contributed to the total costs of the HSL-Zuid Line project being fifty-five percent more than projected.<sup>95</sup>

The Dutch HSR project highlights some negative aspects of P3s. First, project bundling was not used to merge all stages of development. Rather, three separate stages of the project were planned, resulting in the negotiation of three separate agreements by various consortia. Miscommunication between the interested parties led to costlier bids,

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<sup>93</sup> Global Railway Review, *HSL-Zuid: High Speed Importance*, <https://www.globalrailwayreview.com/article/850/hsl-zuid-high-speed-importance/> (last visited Jan. 18, 2018).

<sup>94</sup> Editorial, *Contractors Hurry to Finish HSL-Zuid*, RAILWAY GAZETTE (Apr. 1, 2005), <http://www.railwaygazette.com/news/single-view/view/contractors-hurry-to-finish-hsl-zuid.html>. Several of these requirements included safety and speed testing. *Id.*

<sup>95</sup> Global Railway Review, *supra* note 93. See also *High Speed Line Zuid*, BAM PPP, <https://www.bamppp.com/en/our-projects/high-speed-line-zuid> (last visited Jan. 18, 2018).

cost overruns, delays, and unnecessary assumption of the risk by state authorities that would typically be borne by the private sector.

Second, collusion of bids suggested a lack of transparency in the competitive bidding process. This led to reduced cost savings.

Third, only one public authority should have overseen the project to consolidate efforts and strategies, while avoiding technical mistakes such as changing designs during the bidding process.

Fourth, there was no smooth transfer of risks in the HSR project from the public authority to the private partner.

### *B. Taiwan*

Another example of P3 challenges is Taiwan's high-speed rail network.<sup>96</sup> Construction of the project began in February 2000 after Taiwan enacted its Act for Promotion of Private Participation in Infrastructure Projects.<sup>97</sup> The purpose of the law was to encourage P3s in Taiwan's public infrastructure development.<sup>98</sup>

In January 1997, procurement began for a high-speed rail project connecting Taiwan's two largest cities, Taipei and Kaohsiun. As part of the competitive bidding process, two consortia emerged: Taiwan HSR Alliance and China HSR Alliance. Competition focused on financing rather than technical issues because of mature HSR technology already in place.<sup>99</sup> The Chinese group requested that the public authority invest \$4.5 billion, while the Taiwanese group requested nothing.<sup>100</sup>

The Taiwanese Government eventually awarded the P3 project to the Taiwan High Speed Rail Corporation (THSRC) in September 1997.<sup>101</sup> The P3 agreement was signed in July 1998, after ten months

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<sup>96</sup> See DUTZIK ET AL., *supra* note 87, at 21 (Between 2006 and 2009, the number of passengers-miles traveled by train in Taiwan increased by fifty-six percent, while the number of passengers on domestic air service decreased by fifty-three percent.).

<sup>97</sup> Public Construction Commission, *Act for Promotion of Private Participation in Infrastructure Projects* (last updated Dec. 31, 2012), [https://www.pcc.gov.tw/pccap2/BIZSfront/EngMenuContent.do?site=004&bid=BIZS\\_C00007545](https://www.pcc.gov.tw/pccap2/BIZSfront/EngMenuContent.do?site=004&bid=BIZS_C00007545). In Taiwan, there were 985 P3 contracts signed between 2000 and 2012. AKINTOYE ET AL., *supra* note 88, at 307.

<sup>98</sup> Peter Yu Kien-hong, *Near-bankruptcy of the Taiwan High Speed Rail Corp.: What Went Wrong?*, 5(12) INT'L J. BUS. & MGMT. 14, 14 (2010), <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.965.6550&rep=rep1&type=pdf>.

<sup>99</sup> *Id.*

<sup>100</sup> *Id.* at 4.

<sup>101</sup> PETRA TODOROVICH ET AL., HIGH-SPEED RAIL: INT'L LESSONS FOR U.S. POLICY MAKERS, LINCOLN INST. OF LAND POLICY 51 (2011), [http://www.lincolninst.edu/sites/default/files/pubfiles/high-speed-rail-full\\_0.pdf](http://www.lincolninst.edu/sites/default/files/pubfiles/high-speed-rail-full_0.pdf).

of negotiation. A concession period of thirty-five years was agreed upon, where the 345-kilometer line was to follow the Build-Operate-Transfer (BOT) model. The total cost of the project was \$18.4 billion USD, where \$3.4 billion came from the government and \$15 billion came from the private consortium.<sup>102</sup> The private consortium was responsible for civil works, train stations, tracks, electrical and mechanical systems, and financing. The public authority dealt with land acquisitions and supervision of construction.

Several major problems emerged during the project: lack of ridership, indirect government funding, a construction delay of fourteen months, and a cost overrun of \$1.5 to \$1.7 billion.<sup>103</sup> The THSRC failed to obtain debt financing of \$10 billion from its lenders after signing the P3 agreement. The public authority did not anticipate the debt guarantee, nor was it specified during the procurement process. As a result, the THSRC demanded debt financing from the government, otherwise it would abandon the project. In response, the public authority signed a debt finance agreement worth \$10 billion. THSRC suffered major financial losses, forcing the Taiwanese government to take over the corporation by refinancing its debt and even changing its board of directors.<sup>104</sup>

The P3 project essentially failed for three reasons. First, the public authority ended up providing capital that the private partner in the THSRC was supposed to provide. Second, a lock-in occurred, where the private partner suffered financial losses (largely due to the Asian financial crisis), and could not complete the project. The lock-in meant that although the Taiwanese government could have let THSRC go bankrupt, it would have resulted in abandonment of the HSR project altogether, adversely affecting the public interest. Third, unanticipated debt financing problems emerged that led to a government bailout. Due to its inexperience with P3 financing, the Taiwanese government did

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<sup>102</sup> S. Ping Ho, GOV'T POLICY ON PPP FIN. ISSUES: BID COMP. AND FIN. RENEGOTIATION 41, [https://gpc.stanford.edu/sites/default/files/wp029\\_0.pdf](https://gpc.stanford.edu/sites/default/files/wp029_0.pdf) (last visited June 10, 2017).

<sup>103</sup> See generally AECOM AUSTRALIA PTY. LTD., HIGH SPEED RAIL STUDY PHASE TWO REPORT 73–75 (Mar. 2013), [https://infrastructure.gov.au/rail/trains/high\\_speed/files/HSR\\_Phase\\_2\\_Appendix\\_Group\\_7\\_Procurement\\_institutional\\_appraisal\\_and\\_implementation\\_plan.pdf](https://infrastructure.gov.au/rail/trains/high_speed/files/HSR_Phase_2_Appendix_Group_7_Procurement_institutional_appraisal_and_implementation_plan.pdf).

<sup>104</sup> S. Ping Ho, *supra* note 102, at 43. The corporation lacked financing and thus failed to complete the project. See *id.*

not ensure proper financing would be available when negotiating with the private partner during the procurement process.

### *C. California*

Drawing from the European P3 experience, California became the first jurisdiction in the United States to build HSR.<sup>105</sup> In 2008, the California High Speed Rail Authority (the public authority responsible for California's entire HSR system) issued a Request for Expression of Interest (RFEI), after which thirty responses were received from P3 players from both domestic and international sources. In February 2009, the California Department of Transportation and regional transportation agencies entered into concession agreements with the private sector on transportation projects.<sup>106</sup> This included concessions towards deference for a municipal or local government's preference for P3s.

In 2010, California created a dedicated P3 office known as the Public Infrastructure Advisory Commission (PIAC).<sup>107</sup> As the lead P3 agency, PIAC advises the California Department of Transportation (Caltrans) and regional transportation agencies on P3s, encouraging P3s for public infrastructure development. Consisting of twenty commissioners from academia, industry, and government, PIAC reviews proposed projects in terms of finances and gives clear objectives and recommendations to the private sector on P3s. In 2012, California laid its first HSR tracks for an 800-mile HSR system. For this project, \$2.3 billion of the funding came from P3 investments, twenty-five percent to thirty-three percent of funding came from federal funds, and the remaining funding came from the state.<sup>108</sup> The federal funds are part of a broad federal

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<sup>105</sup> See *About California High-Speed Rail Authority*, CAL. HIGH-SPEED RAIL AUTH., <http://www.hsr.ca.gov/About/> (last visited June 10, 2017). In terms of pressure to build new modes of transportation, California's population is expected to grow. *Id.* In 2008, Proposition 1A for Safe, Reliable High-Speed Passenger Train Bond Act authorized \$9.95 billion in bonds to build HSR in California. *Id.*

<sup>106</sup> California was one of the first states to authorize P3s in the late 1980s. ALLAN MARKS ET AL., MILBANK, TWEED, HADLEY & MCCLOY LLP, CALIFORNIA PUBLIC PRIVATE PARTNERSHIP DEVELOPMENTS 1 (Mar. 23, 2009), [https://www.milbank.com/images/content/6/0/606/032309\\_California\\_Public\\_Private\\_Partnership\\_Developments.pdf](https://www.milbank.com/images/content/6/0/606/032309_California_Public_Private_Partnership_Developments.pdf). In 1989, California's Assembly Bill 680 allowed for competitive bidding of four privately financed toll-road projects. *Id.*

<sup>107</sup> EMILIA ISTRATE & ROBERT PUENTES, BROOKINGS-ROCKEFELLER, MOVING FORWARD ON PUBLIC PRIVATE PARTNERSHIPS 14 (Dec. 2011), [https://www.brookings.edu/wp-content/uploads/2016/06/1208\\_transportation\\_istrate\\_puentes.pdf](https://www.brookings.edu/wp-content/uploads/2016/06/1208_transportation_istrate_puentes.pdf).

<sup>108</sup> CALIFORNIA HIGH SPEED RAIL AUTHORITY, THE ECONOMIC IMPACT OF CALIFORNIA HIGH SPEED RAIL, <http://www.hsr.ca.gov/docs/newsroom/fact%20sheets>

legislative initiative to stimulate the U.S. economy under the American Recovery and Reinvestment Act (2009).<sup>109</sup> In 2017, California's HSR development appears to be well underway.<sup>110</sup>

#### ***D. Stages of P3 Development***

With the elements of P3s in mind, as well as the P3 examples from various jurisdictions, the stages for P3 development are as follows:

- **Step 1: Conduct Feasibility Studies**
  - Determine the value of using HSR in Canada:
    - Where will HSR be built?
    - What is its impact on society?
    - What are the costs?
    - What are the legal and technical issues?
  - What is the political will to build HSR?
  - Where will HSR be designated?
- **Step 2: Inception—Create a P3 for HSR**
  - Outline objectives, expectations, and requirements.
  - Who is the P3 public authority responsible for HSR?
  - Will the public authority use P3s to build HSR?
  - What are the preliminary designs and output specifications?
- **Step 3: Procurement Process**
  - Seek out private investors willing to provide capital for HSR projects.
  - Invitation for private bidders for HSR project:
    - Ensure that adequate disclosure is made by the private partner (e.g., financial statements, details of construction, financing, reversion of ownership, etc.);

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/Economic\_Impact.pdf (last visited Jan. 18, 2018). *See also* CALIFORNIA HIGH SPEED RAIL AUTHORITY, HIGH-SPEED RAIL: CONNECTING AND TRANSFORMING CALIFORNIA (June 2017), [http://www.hsr.ca.gov/docs/newsroom/fact%20sheets/HSR\\_Connecting\\_Factsheet.pdf](http://www.hsr.ca.gov/docs/newsroom/fact%20sheets/HSR_Connecting_Factsheet.pdf) (last visited Jan. 18, 2018).

<sup>109</sup> American Recovery and Reinvestment Act, 26 U.S.C. § 1 note (2009).

<sup>110</sup> *See generally* Operators from Five Countries Interested in California High Speed Rail Contract, RAILWAY GAZETTE (Apr. 6, 2017), <http://www.railwaygazette.com/news/single-view/view/operators-from-five-countries-interested-in-california-high-speed-rail-contract.html> (In April 2017, five responses were received by the California HSR Authority to its RFQ, from both domestic and international sources: (1) China HSR ETO Consortium; (2) DB International US; (3) FS First Rail Group; (4) RENFE; and (5) Stagecoach Group.).

- Public authority engages HSR advisors—legal, technical, accounting, finance, project management, risk management.
- Project Bundling:
  - Creates life cycle of HSR project (merges all stages of development); and
  - Creates certainty from start to finish, clearly define the tasks, incentives, and goals;
- Risk Assessments:
  - What are the risks for HSR?
  - What transfer of risks occur from public to private entities?
  - Public authority reviews HSR’s VfM
    - ◆ Is the P3 model preferred over traditional procurement for HSR?
      - Does it deliver the best value?
  - Confirmation that private partner can handle risks
- Which P3 model will be used for HSR? (DBFMO, DBFO, DBOT, DBB, DB)
- Public authority issues the RFQ (Request for Qualification) and RFP (Request for Proposal):
  - Private partner responds;
  - Shortlist best candidates (will be invited to respond to RFP);
  - RFP is released, showing design, output specifications and all other bid documents (including P3 Agreement)—these are the standards for private partners to follow;
  - Private partner may seek clarifications over its proposals (e.g., design);
- Step 4: Government Chooses Private Partner for P3
  - Private partner may be single entity or consortium (construction/engineering firms, lenders, investment firms).
  - The most compliant bidder to the RFP is chosen.
  - Contractor will be responsible for design, construction, financing, maintenance and operation of the public asset on a long-term basis.
- Step 5: Enter into P3 Agreement
  - Negotiations between public authority and private partner on all HSR issues.
  - Provisions should cover all aspects of HSR project.

- Step 6: Compliance with P3 Requirements
  - Meeting specific targets and standards.
  - Specific targets include:
    - Construction—design and materials;
    - Handling capacity (ridership) per year;
    - Location of Train Stations (Platforms);
    - Public safety requirements (as set by rail law and regulations);
    - Environmental Mitigation—noise and vibration, wildlife displacement.
  - Using specifications, the contractor is encouraged to provide innovative solutions.
    - This may result in cost savings.
- Step 7: Payments to Private Partner Based on Performance
  - Government pay the private partner based on meeting performance targets:
    - Large upfront costs are paid by the contractor during the construction phase.
  - The contractor is paid during the lifetime of the project, once it is operational.
  - Two ways to generate profits for private partner:
    - (1) User Fees.
      - Collect fees from tolls.
    - (2) Availability Payments.
      - Government reimburses contractor if the public asset meets certain standards or targets (e.g., quality of construction, efficiency of operations)—usually as fixed fees.
        - If the standards are not met, payments are reduced.
- Step 8: Construction of HSR Begins
  - Public authority monitors construction progress (based on P3 agreement standards).
  - Any changes to the HSR project (e.g., technology) must be communicated between the public and private entities.
- Step 9: Completion of P3 Project
  - P3 Agreement ends.

- Public asset in HSR reverts back to the government.
- Private partner maintains and operates asset (subject to monitoring by public authority).
- HSR becomes a permanent feature of the transportation sector.

### VIII

#### APPLICATION OF P3 MODEL FOR CANADIAN HSR

With the above information in mind, let us apply the procedures and best practices of P3s to possible HSR development in Canada. The premise is that P3s should only be used for HSR if traditional procurement is costlier. Some relevant questions should be asked when using P3s for HSR in Canada:

- What is the political will for HSR?
- What is the private sector's appetite for investment in HSR?
- Is the procurement process open, fair, and efficient for private bidders?
- What will the private sector bring to the P3 arrangement, if HSR is pursued?
- What risks will be transferred from public to private entities in HSR?
- Can the private partner handle financing and technical issues for HSR?
- Will project bundling streamline decision-making, add certainty in HSR, and deliver the asset on-time?

Since P3s have been successful in Canada for other forms of public transport infrastructure (such as roadways and light rail transit), it is conceivable that P3s may help build a new HSR network. As seen from international examples, there are already a growing number of P3s in the railway sector that serve as guiding principles for HSR development.<sup>111</sup> As a P3 advocate once stated: "The public sector can stretch its investment for more new infrastructure; the private sector will utilize best practices to deliver this infrastructure more efficiently than traditional methods; and most importantly, each will need to work in partnership to ensure the best results for all stakeholders."<sup>112</sup> This

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<sup>111</sup> DUTZIK ET AL., *supra* note 87, at 11.

<sup>112</sup> William Marino, *Foreword* to DAN MCNICHOL, THE UNITED STATES: THE WORLD'S LARGEST EMERGING P3 MARKET, <https://www.aig.com/content/dam/aig/america->



new infrastructure is HSR. To do this, a streamlined, disciplined, and tailor-made procurement process is necessary. Because HSR is a new, yet long-term public asset, a strong legal framework must complement P3s in scope and application. The private partner must see incentives, targets, and clear objectives throughout the entire lifecycle of the project. This adds certainty in meeting those targets, and confidence will grow amongst private investors to participate in HSR, making the delivery of HSR easier. At the end of the project, however, the ownership of the public HSR asset shall revert to the public authority, although operations and maintenance may remain with the private partner.

It is implied that if governments are interested in building HSR, the private sector will show interest. This is happening in jurisdictions currently building HSR. The benefit for Canada is that the private sector is already familiar with Canadian P3s in other public sectors. As such, P3s can be attracted to future HSR projects (despite its uncertain risks). With robust procurement laws, regulations, and guidelines managed by public authorities at all levels, why not extend the P3 approach to build HSR? The political will in Canada already favors P3s. Moreover, the federal P3 Canada Fund directly supports sustainable transportation projects among provincial and municipal procurement agencies (both of which have vast experience with P3 projects). The multidisciplinary nature of the P3 funding process among federal, provincial, and municipal governments has standardized P3s throughout Canada, thereby enabling P3s to deliver public assets on time and with cost savings. In other words, the foundation is there; we need to extend the P3 framework to fit the needs of HSR development.

## **IX RECOMMENDATIONS FOR HSR DEVELOPMENT USING P3s IN CANADA**

After reviewing examples of challenges faced by public authorities on transportation matters, let us consider some recommendations for Canadian HSR development using principles and best practices of P3s.

*Recommendation 1: Harmonize P3 legislation with HSR Development to Create Standards*

- Newer forms of procurement legislation and regulations to fit HSR-related issues should be enacted.
  - This is already done for current municipal LRT projects.
- High standards for private partners to follow should be created.

*Recommendation 2: Use Project Bundling from Light-Rail Transit and Roadway P3s*

- Project bundling integrates all stages of development:
  - Creates streamlined and efficient procurement processes;
  - Leads to cost savings;
  - Optimizes lifecycle which avoids delays by careful planning during each stage with investors;
  - Consolidates decision making;
  - Disciplines parties to proceed with one design and technology because frequent changes are avoided.
- Using light-rail transit methodology, P3s focus all technical, financial, and legal issues on similar technologies and frameworks as in HSR.
- P3s help the public and private sectors achieve targets over a lengthy period of time.
- P3s provide a system of checks and balances; clear performance standards and targets are set to encourage private entities to not only raise sufficient capital to build HSR, but to manage their operations.
- Helps avoid duplication of agencies and documents needed for RFQ and RFP stages.

*Recommendation 3: Get Public Consultation and Choice of P3 for HSR Development*

- P3s should be chosen for HSR development only if the P3 is more affordable than traditional procurement (public capital costs considerations should be avoided until the project is completed).
  - Traditional procurement is still effective, but for the sheer magnitude and scale of HSR, P3s may be better.
- Each project should be vetted at the front end by feasibility studies, VfM analysis and risk assessments.

- Transfer of Risk—is there enough transferring risks from the public authority to the private partner to avoid public capital expenditures (and burdening the taxpayer)?
- Clarification questions should be addressed to the HSR Project Manager.

*Recommendation 4: Institute Open and Fair Bidding Process for Qualified Bidders*

- Open and fair bidding processes foster competitive bids among qualified bidders.
- A choice among experienced HSR developers or even among LRT developers who can adapt their plans to build HSR means two things:
  - (1) Bidders will get clear bid evaluative criteria in advance; and
  - (2) Domestic and international bids may be entertained, as is commonly found among any P3s offering HSR projects.
- Qualified bidders' participation likely means a choice within a diverse and powerful consortium of engineering/construction firms, architectural firms, equity investors, and lenders.
  - This strength in diversity brings added value to the table for complex public project development.
- Using a fairness monitor or auditor to oversee the bidding process, and declaring that the P3 is open, fair, and competitive will ensure overall fairness.
- Incentives should convince the private investor of a healthy return on investment for HSR development.<sup>113</sup>
- The implication is that any HSR project will serve the public interest for a long period of time, and so revenue generation from the use of the service is attainable (through availability payments from the public authority and user fees).

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<sup>113</sup> See generally ASS'N OF CONSULTING ENG'G COS., UNDERSTANDING PUBLIC PRIVATE PARTNERSHIPS IN CANADA, [http://www.acec.ca/files/resources/acec\\_P3\\_report\\_v3.pdf](http://www.acec.ca/files/resources/acec_P3_report_v3.pdf) (last visited June 10, 2017) (The Association of Consulting Engineering Companies states: "Experience in Canada shows that the greatest benefit for both the public owner and the private sector P3 partner generally occurs when the private sector is contracted to maintain and operate the asset for twenty-five to thirty-five or more years in addition to designing, building and providing the financing for the asset.").

- Private partners should get sufficient managerial control of projects.
  - This is premised on their expertise to help design, build, and operate transportation infrastructure by providing technologies and employing engineers, architects, and research scientists.<sup>114</sup>
  - As long as there is proper compliance monitoring of the private partner's progress, the targets of the P3 can be maintained.
- The fairness monitor should publish results of the P3 to the public.

*Recommendation 5: Structure the Procurement Process for HSR*

- The P3 should be structured for HSR development.
  - This means that designing, building, financing, operating, and maintaining HSR includes consideration of train station locations, track lines, signaling systems, and possible integration with conventional railway lines.
- Private bidders must provide adequate disclosure to reveal all capabilities, skills, and technology for HSR development and their references should be checked.
- Risk assessments must be determined from VfM assessments.
  - Whether the private partner would be exposed to market forces (e.g., financial crises) should also be considered.
- Site investigations should be conducted to reveal the best place for laying dedicated HSR track and stations.

*Recommendation 6: Use the DBFMO model for HSR*

- Under the DBFMO model, a public owner enters into agreement with a consortium of private contractors (i.e., lenders, construction, project managers, architects, and engineering firms, often called “cessionaires”).
- Whether there will be a debt guarantee for the private partner to ensure proper financing should be considered.
- The consortium provides a range of services set out in the P3 agreement.

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<sup>114</sup> Bombardier, a Canadian hi-tech corporation based in Montreal, Québec, is a prime example of a business that researches and develops high-speed trains in Canada for export. *High Speed Trains*, BOMBARDIER, <http://www.bombardier.com/en/transportation/products-services/rail-vehicles/high-speed-trains.html> (last visited Oct. 17, 2017). It begs the obvious question—if a Canadian company manufactures high-speed trains for export to other nations, why is Canada not using HSR?

- At the end of the P3 agreement, the public owner takes over the HSR project.

*Recommendation 7: Create a Strong yet Flexible P3 Legal Framework for HSR*

- Canadian jurisdictions should adopt newer P3 legislation that creates a solid legal framework to apply P3s in HSR projects. This would give certainty to private investors to raise necessary capital costs.

*Recommendation 8: Adopt Best Practices from Light-Rail Transit and Roadway P3s*

- Because HSR is a transportation issue, it is necessary to draw best practices from light-rail transit and roadway P3s.

*Recommendation 9: Tailor P3 Proposal to Secure Federal Funding*

- Both provincial and municipal governments should tailor the P3 project for HSR to be eligible for the P3 Canada Fund.
  - Relieving traffic congestion is one major requirement. HSR is built for this purpose which makes it more likely to be eligible.
- Receiving federal funding would enable proper financing for the public authority and boost private investor confidence.
- The proposal should include a Requirement Compliance Matrix (similar to the Netherlands).

*Recommendation 10: Have a Comprehensive and Flexible P3 Agreement*

- Flexible provisions of the P3 agreement that account for unexpected events or changes should be ensured.
  - The partnership should absorb such changes and re-negotiate terms and conditions if necessary.
- Key clauses in the agreement should include:
  - Conflict of Interest;
  - Duration—should be for thirty to fifty years for HSR;
  - Duties—outline specific duties (e.g., design, building, testing, etc.);
  - Payments—ensure payments are based on the performance of the private partner upon completion of set targets;
  - Breach—enforce severe penalties upon breach by private partner;

- Risks
  - Risks should be assigned to a managing entity; and
  - The authors should consider whether the risks would be borne solely by the private partner, or between the public authority and private partner;
- Prepare for Project Defaults
  - The authors should consider what happens if the private partner is unable to secure proper financing and if there would be a government bailout;
- Quality Control and Compliance—testing of facilities and trains; and
- Reversion—the HSR project should revert back to the public authority, but operations and maintenance may continue with private partner.

### CONCLUSION

P3s serve as the embodiment of practical, efficient measures in Canadian public infrastructure development. They are a better alternative to traditional procurement. Led by rigorous procurement policies and laws, P3s are particularly helpful in building public assets when governments face infrastructure deficit problems. Here, there is sharing of powerful public and private resources. But the true success of P3s lies in project bundling—the combination of all stages of development with clear tasks, incentives, and goals into a single P3 agreement. This creates certainty in completing the project, boosting investor confidence, and thus, participation in public projects. With this in mind, it is reasonably foreseeable that P3s could be useful for newer, unique forms of infrastructure in HSR. Because HSR has not yet developed in Canada, careful planning and delivery of high-speed rail can be achieved under the rigorous and results-oriented aspects of P3s.

The P3 model is not the only policy choice for HSR, but it has a good track record in Canadian jurisdictions, as well as in nations currently using HSR. Infrastructure deficit problems often plague governments; it is difficult to raise capital costs to upgrade or build new public infrastructure assets. The financial burden placed on governments to spend on public assets is simply too great—hence, the need for private sector involvement. The private sector brings enormous capital, resources, expertise, and technology in helping public authorities build large, costly public assets. In short, the Canadian P3 experience has been outstanding. There is a united effort

by all levels of government to encourage P3s in public infrastructure development and to work with the private sector.

In this sense, the push for transportation sustainability may convince Canadian lawmakers to pursue HSR using P3s. P3s enhance the regulatory experience for public infrastructure development. Given comparative P3s in public transportation, there are both healthy precedents to follow and lessons to be learned for Canada. The maturing P3 market in Canada makes P3s a popular choice for governments in Canada to build more complex projects like HSR, so long as the P3s are structured uniquely for the specific challenges of HSR. This success of P3s paves the way for practical and meaningful partnerships in making HSR a reality. While P3s have been used in other sectors such as health care, energy, and education, they are quickly becoming a policy choice for public authorities in transportation. In this sense, P3s represent the most optimistic choice to deliver HSR in Canada.

