



Implementation of PPPs for Transit

**The National Council for Public-Private Partnerships
Conference, Boston**

KPMG Infrastructure Advisory

September 17, 2009

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Overview of KPMG Infrastructure Advisory

- KPMG has acted as Financial Advisor and service provider to both public and private clients globally and within the US
- Our team offers experience and insights on traditional tax-exempt public finance as well as Public-Private Partnerships
- KPMG has broad experience in procurement/financing of infrastructure, including:
 - Transportation (rail, transit, highways, toll roads, airports and seaports)
 - Social Infrastructure (schools, healthcare, housing, parks, courts, etc.)
 - Water and Utilities
- 500 people servicing infrastructure globally, including 50 in the US
- Recently selected as financial advisor to Chicago’s Regional Transportation Authority
- Advising California High Speed Rail on organizational issues

Industry league tables rank KPMG as the leading financial advisor on global PPP deals for 2008



ij infrastructure awards winner

Transport Deal of the Year
Capital Beltway I-495 Virginia Hot Lanes

2008

AUDIT • TAX • ADVISORY



ij infrastructure awards winner

PPP Deal of the Year
FSTA

2008

AUDIT • TAX • ADVISORY



ij infrastructure awards winner

Financial Advisor of the Year - PPP

2008

AUDIT • TAX • ADVISORY

PPP Program Experience



Texas Department of Transportation

CDA Program
\$10+ billion
Ongoing



Virginia Department of Transportation

PPTA Program
\$1.9 billion
Ongoing




Florida Department of Transportation

PPP Program
Ongoing



State of Michigan Department of Treasury

State-wide PPP Program
Ongoing



Metro

LA Metro

PPP Program
Ongoing



Government of Alberta

Alberta Schools
Ongoing

PPP Project Experience



Virginia Department of Transportation

I 495/Capital Beltway
\$1.9 billion



Texas Department of Transportation

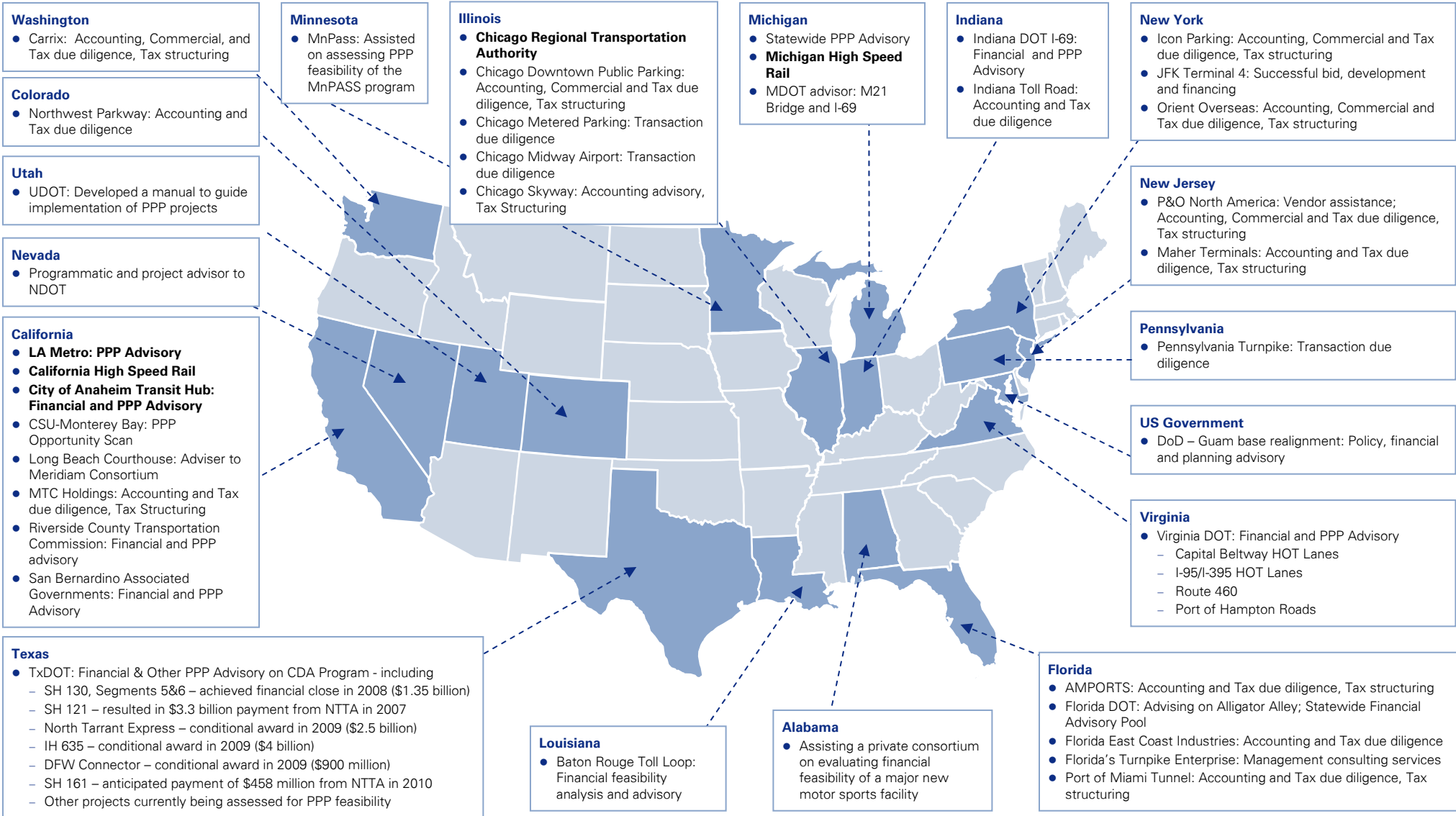
North Tarrant Expressway
\$2+ billion



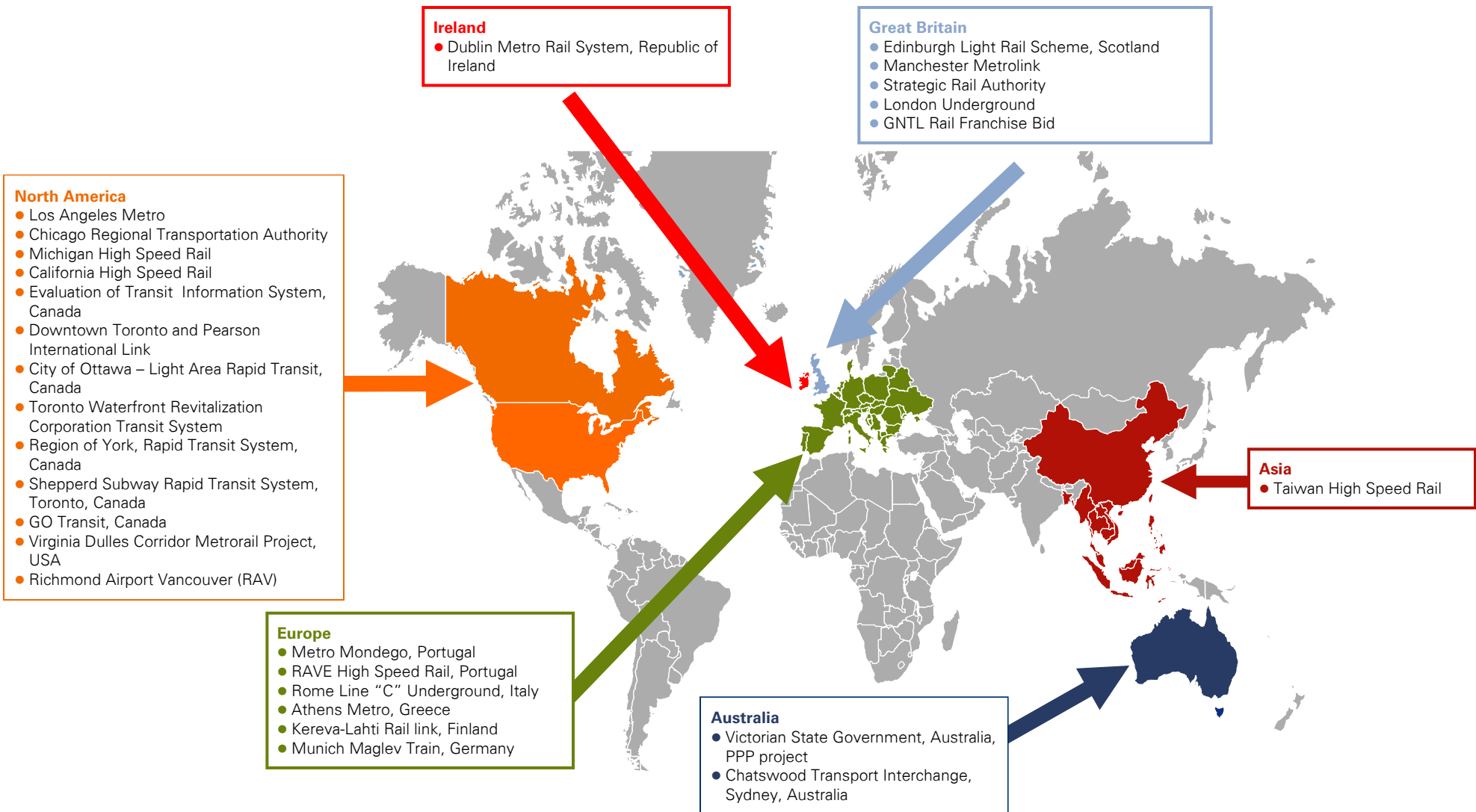
Texas Department of Transportation

DFW Connector
Ongoing

KPMG Infrastructure Advisory U.S. Experience



KPMG Rail and Transit Experience



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What is an Availability Payment Agreement?

- **Confusion between P3s and privatization**
- **Long-term agreement with periodic, performance-based payments to Private Sector partner for DBFOM of facilities and services**
- **Unlike a full concession, the scope of services for the Private Sector would not include:**
 - Ridership and demand risks
 - Fare collection

Availability Payments provide an alternative, flexible way to allocate project risks

	Design	Construction	Operations	Maintenance	Financing	Ridership	Collection
Design Bid Build Traditional	○	○	○	○	○	○	○
Design Build	●	●	○	○	○	○	○
Design Build Operate/Maintain	●	●	●	●	○	○	○
Design Build Finance Operate (Availability Payment)	●	●	●	●	●	○	○
Design Build Finance Operate (Real User Fee)	●	●	●	●	●	●	●

○ - Responsibility of the Public Sector
 ● - Responsibility of the Private Sector



Transit Availability Payment Structures

A Public-Private Partnership involves the public and private sector sharing the risk and rewards of building what have traditionally been publicly owned and operated assets - in order for projects to be completed faster, on budget, and at an enhanced value for money to the owner.

Payments are made to private partner as milestones are met. The payment can be from different sources: Fare Box Revenue, General Fund, Capital Fund, Bonding, Grants, etc.

Common Characteristics of Availability Payment Model

Description:

- Payments are not made by Public sponsor until facility is operational (available).
- Availability payment concept smoothes up front capital expense over life of asset.
- If facility or portion of facility is not available (i.e., a station or rail car) deductions are made automatically per contract terms.
- Performance is minority component of pay structure – a facility can be available, but not perform (e.g. landscaping not maintained to agreement).

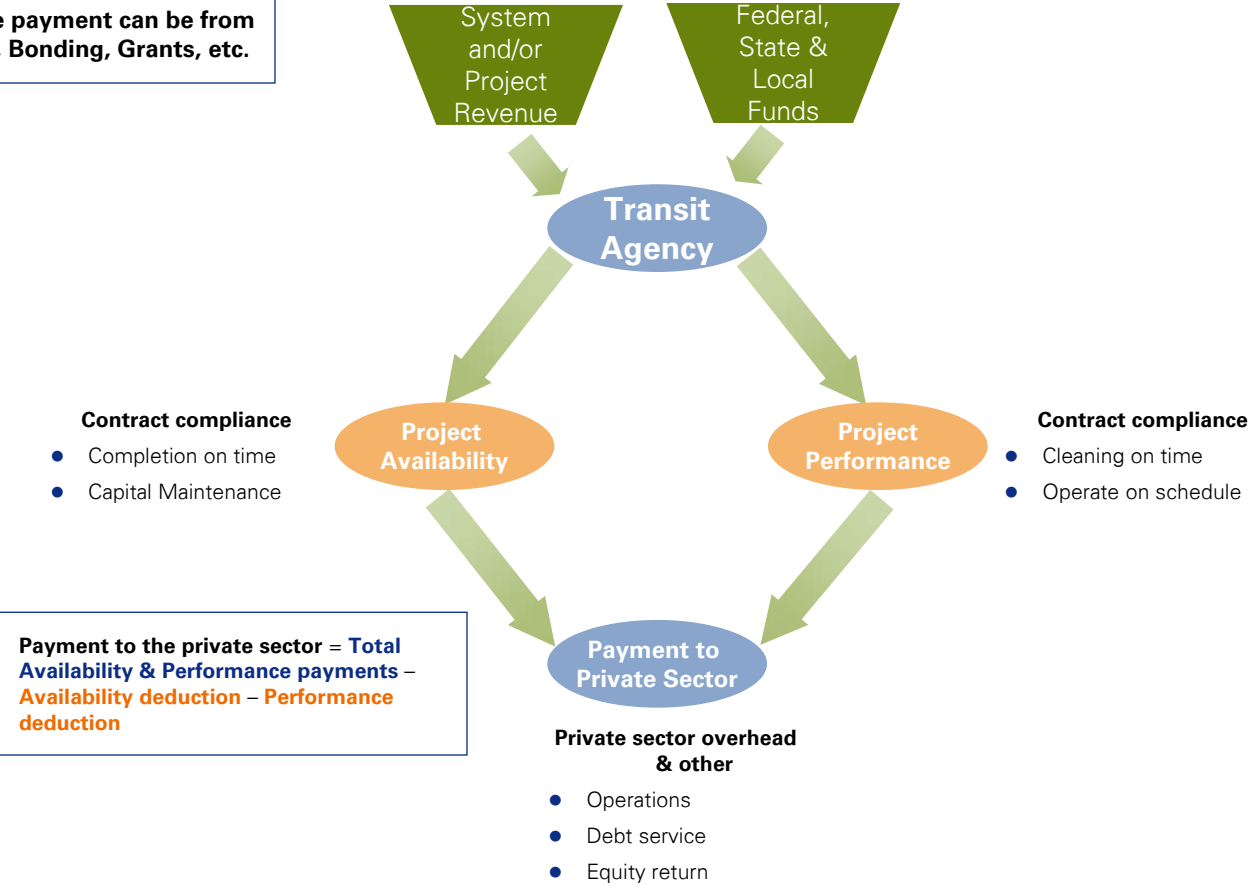
Financing:

- Developers can access capital market, bank debt and/or equity market to finance project.
- Availability structure creates high quality revenue stream without demand risk

Commitment to maintenance:

- Contract terms include detailed O&M provisions.
- If not met, availability payment deductions are made.
- Promotes whole-life costing approach during design and construction.

The diagram below represents how a typical payment mechanism for transit PPP works:



Hand-back Requirements: Concessionaire is required to return the project in a "like new" condition at end of concession term (30-50+ years)

Transit Availability Payment Structures: Follow the money...

- **Funding to the Public Sponsor**

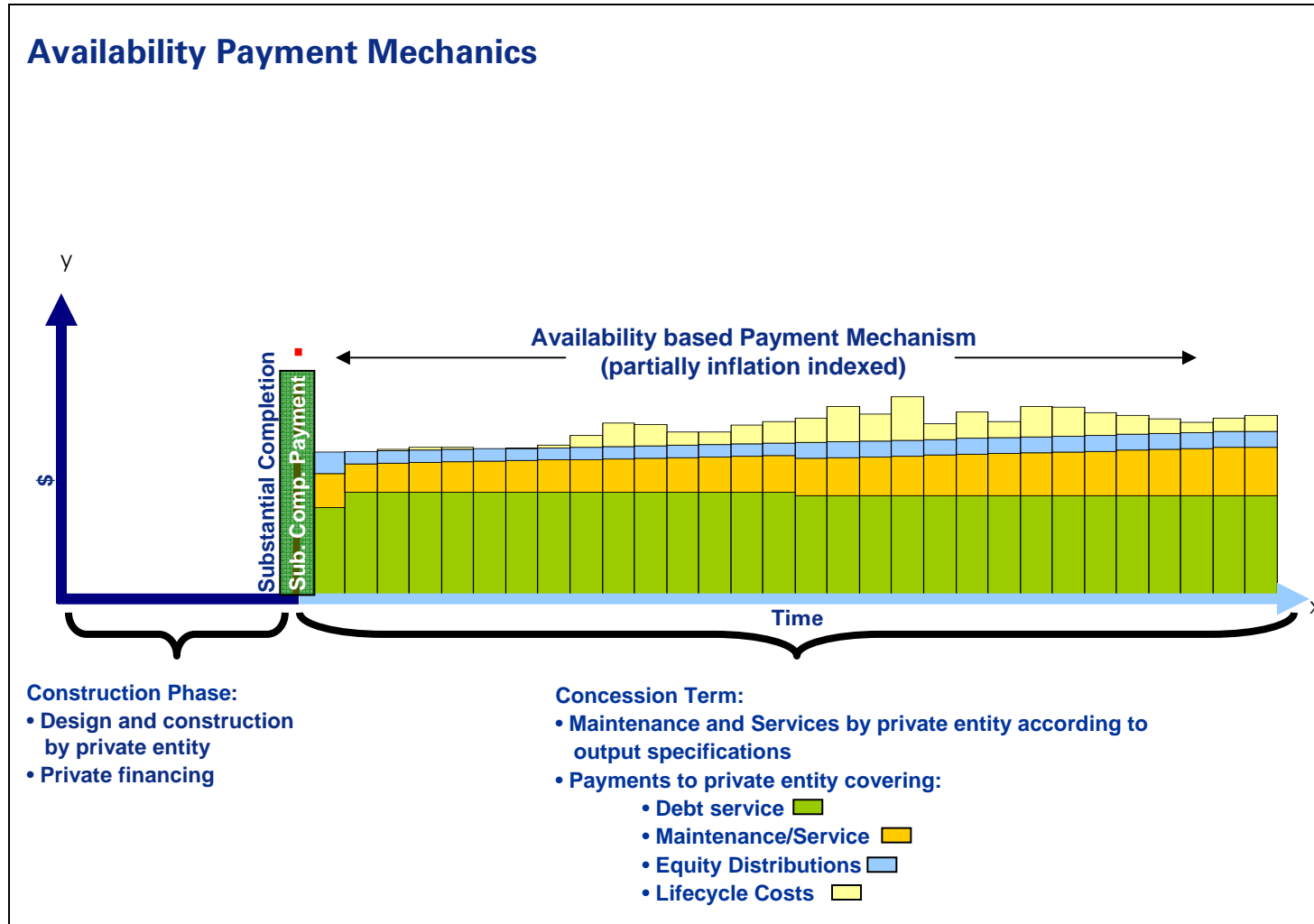
- Farebox revenue
- General tax revenue allocation
- TIFs and TODs
- Grants, other intergovernmental transfers

- **Public Sponsor makes periodic availability payments to Private Partner**

- **Return on equity investment reflects level of transferred risk**

- **Private Partner finances (debt and equity) against payment stream**

- **“Funding is not the same as financing”**



Availability Payment Structures: Key Benefits

Challenges

- Project lacks stand-alone financial viability
- Public Sector specific policy requirements
 - Fare affordability
 - Competing facilities
 - Control over operating and safety standards
- Public Sector needs to control project cost exposure
- Public concerns over long term concession projects
- Need to attract robust competition from private bidders
- PPP approach needs to provide Value for Money in transferring risk to Private Sector

Benefits

- Allows use of PPP model and reduces project risk profile
- Public Sponsor retains control over user fees
- Provisions against competing facilities not necessary
- Performance Requirements allow Public Sponsor to control operating outputs
- Payments do not start until facilities are completed and operating
- Public Sponsor's total payment obligation is capped
- Availability structures make shorter contract periods more feasible
- Availability deals tend to attract a wider group of investors and contractors
- Encourages whole life approach to design, construction and operations
- Economic drivers are more within the control of the private developer

Shadow Fares

- Transfer demand risk but not risk of fare collection
- Public sector retains control of fares and collection
- Private sector receives per passenger sum
- Per passenger shadow fare often tapers down with increased usage to limit public sector exposure and private sector super profits
- May better reflect variable costs which increase with higher usage
- Many of the benefits of both full concession and availability models without some of the perceived downsides of each
- Equity return requirement higher than pure availability model but less than concession model
- Most appropriate for operational contract for rolling stock
- Possible hybrid model with fixed availability payment to cover minimum debt service with equity return reliant on shadow fares
- Major challenge is for public sector to retrain fare flexibility and for private sector to get predictable cash flow

Types of Rail PPPs

		Capital Requirements					O&M Requirements						
		Rail Infrastructure	Rolling Stock	Systems	Stations/Parking	Capital Funding	Rail	Rolling Stock	Systems Ops	Conductors/Fare Collections	Station Maintenance/Cleaning	Parking Revenues	Parking Maintenance/Cleaning
		✓ = Private Sector Responsibility											
Availability or Performance-Based Payment	Fixed Payment	Traditional Approach											
		O&M Contract for Customer-Related Elements						✓			✓		✓
		D/B Rail	✓										
		D/B Rolling Stock/Systems		✓	✓								
		D/B All	✓	✓	✓	✓							
	DBOM Rail	✓					✓						
	DBOM Rolling Stock/Systems		✓	✓				✓	✓				
	DBOM All	✓	✓	✓	✓		✓	✓	✓		✓	✓	
	DBFOM Rail	✓				✓	✓						
	DBFOM Rolling Stock/Systems		✓	✓		✓		✓	✓				
Demand-Based Model		DBFOM All	✓	✓	✓	✓	✓	✓	✓		✓	✓	
		Privatized Approach	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

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Value for Money Analysis

Rail and transit projects are subject to scrutiny by many stakeholders. How can the public sector be certain it chose the right approach and got the right value?

A VfM analysis determines whether the chosen procurement route is the best option for the public sector and users.

- This Does not mean a project must be revenue positive to show VfM. A P3 structure can provide VfM if it can reduce the public sector subsidy for a given project compared to traditional funding.

Public Sector Comparator:

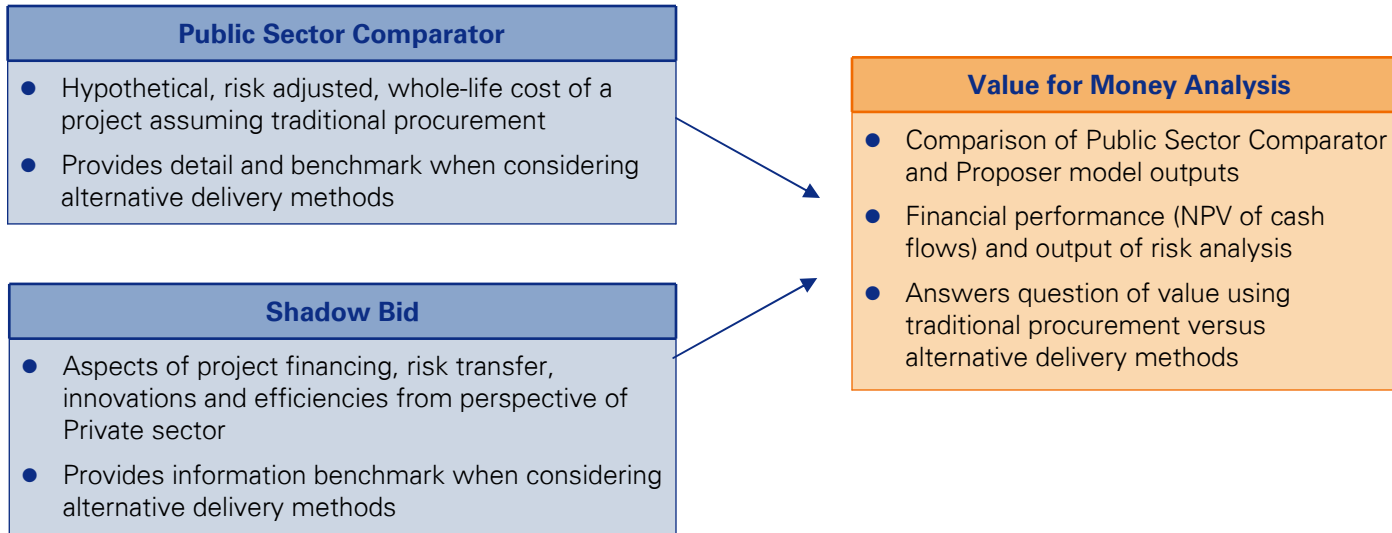
- Calculates the indicative Net Present Value (NPV) or Net Present Cost (NPC) of the project under a traditional delivery model;
- Acts as a benchmark against proposer bid financial models; and
- Must take into account the value of “retained risks”.

Shadow Bid model:

- Calculates the indicative NPV or NPC of the project under a PPP delivery model; and
- Assists in the commercial deal structuring and negotiations by informing the decision making process.

Value for Money should be tested multiple times for a given project, starting from the project screening phase to financial close. VfM should be constantly refined as more information becomes available.

Value for Money Analysis (continued)



In general, long-term VfM can be generated by:

- Maintaining competitive tension throughout the bidding process;
- Proper allocation of risks
- Providing incentives to the private sector for the delivery of quality services;
- Encouraging innovative delivery solutions by use of an “outputs” specification approach
- Offering incentives for the benefit of both parties (e.g. periodic cost benchmarking and sharing mechanisms); and
- A long-term partnership contract provides a degree of cost certainty to government and revenue security to the bidder.

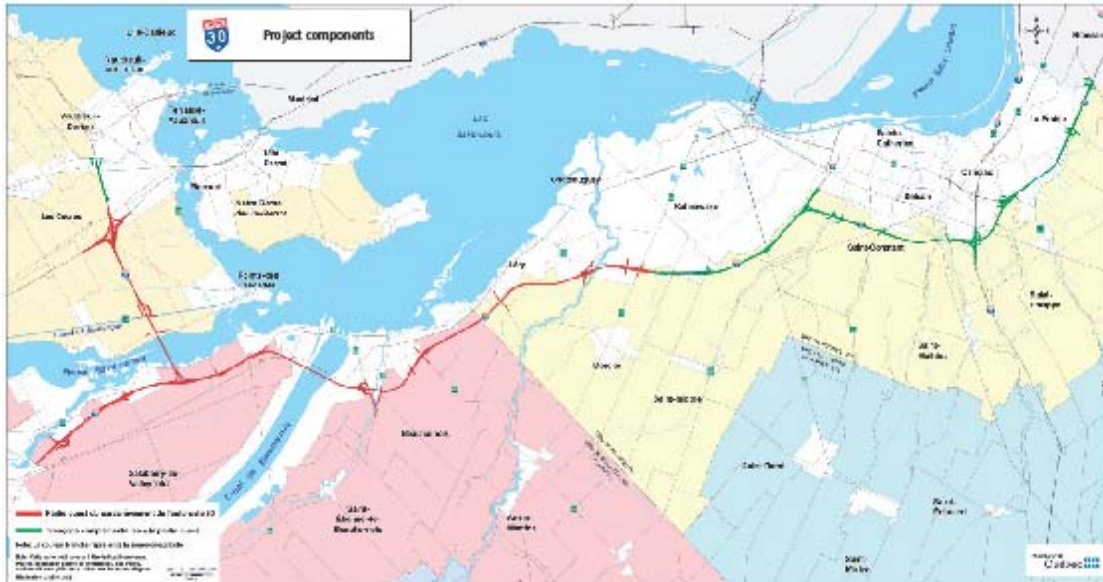
Better Value for Money?

- Optimal allocation of risk
- Integration of service and operational needs with facility design and construction
- Clearer focus on respective responsibilities
- Continuing commercial incentive
- Potential for innovation efficiencies
- Third party revenues and development opportunities
- Overall cost of finance

A30 - Example Value-for-Money Report

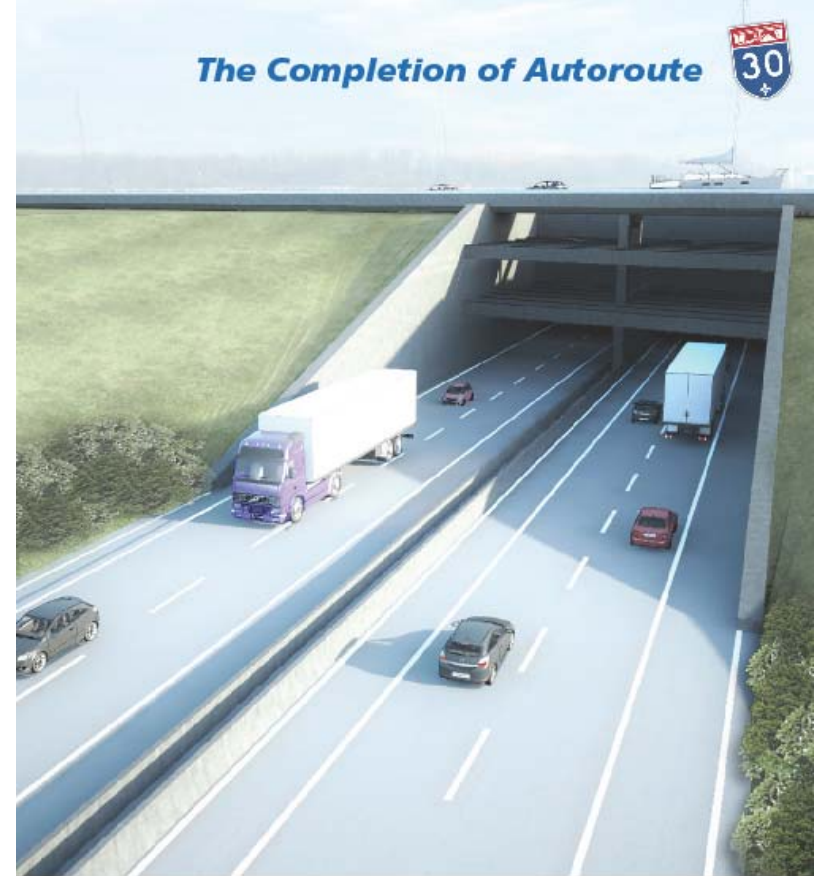
Autoroute 30 – Quebec, Canada

- Large and complicated availability-style P3
- 43 km “greenfield” road project
- Located to the southwest of the greater Montreal Area, near Ontario and the American border
- Government of Quebec to realize Value-for-Money of approximately \$750 million



VALUE FOR MONEY REPORT

The Completion of Autoroute 30



A30 - Public Sector Comparator vs. Actual Bid

PUBLIC SECTOR COMPARATOR

PRESENT VALUE AS AT JULY 1, 2008 (IN MILLIONS OF DOLLARS)

<i>Cost of the project over 35 years</i>	1,647.5
<i>Not toll revenue</i>	(20.8)
<i>Quantification of risks</i>	
Design and construction risks	435.4
Risk of inflation during the design and construction period	239.4
Risk of inflation during the operation, maintenance and rehabilitation period	116.9
<i>Compensation of the three respondents not selected</i>	6.0
<i>Realization costs</i>	2,424.4
<i>Residual value</i>	(134.6)
<i>Net costs for the realization of the project</i>	2,289.8

RESIDUAL VALUE

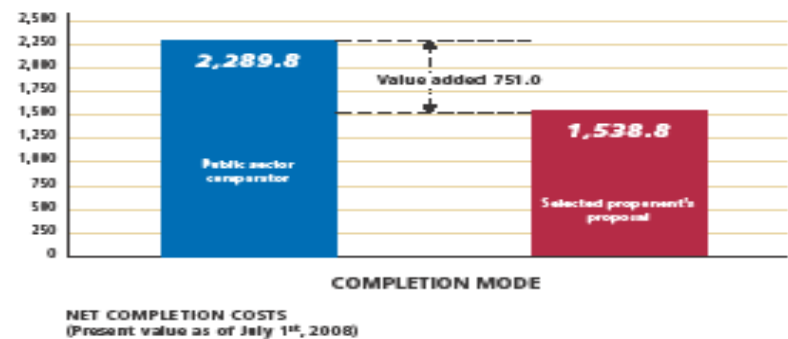
At the end of the partnership agreement period, the Autoroute 30 infrastructures will not have reached the end of their useful life. Accordingly, a value (referred to as the residual value) will be assigned. This value relates among other things to the value of the land, the depreciation of infrastructures, and the condition of these depending on the maintenance carried out.

TOTAL COST TO THE GOVERNMENT OF THE PRIVATE PARTNER'S PROPOSAL

PRESENT VALUE AS AT JULY 1, 2008 (IN MILLIONS OF DOLLARS)

<i>Payments to private partner</i>	1,523.0
<i>Quantification of risks retained by the MTQ</i>	
Risks related to the fluctuation of the CPI relative to payments other than construction payments	133.7
MTQ's costs for monitoring the Partnership Agreement	24.8
Compensation of the two respondents not selected	4.0
<i>Realization costs</i>	1,685.5
<i>Residual value</i>	(146.7)
<i>Net costs for the realization of the project via a PPP</i>	1,538.8

VALUE ADDED FOR PUBLIC FUNDS INVESTED



A30 - Conclusion

As taken from the VfM Report:

“Completion via a PPP according to the selected proponent’s proposal offers considerable advantages over using conventional methods, both quantitatively and qualitatively. The main benefits are as follows:

- **a lower cost of \$751 million in present value** as at July 1st, 2008 for all the design, construction, financing, maintenance, operations and rehabilitation activities for the duration of the partnership agreement, which is around 35 years;
- **faster completion and commissioning by two years**, resulting in greater economic spin-offs and better service to users;
- **risk sharing**, particularly in terms of: transfer to the private partner of the risk of construction cost overruns and late delivery and the operation, maintenance and rehabilitation for the entire partnership agreement;
- implementation of a quality infrastructure that benefits from the private partner’s **capacity for innovation”**

Overview

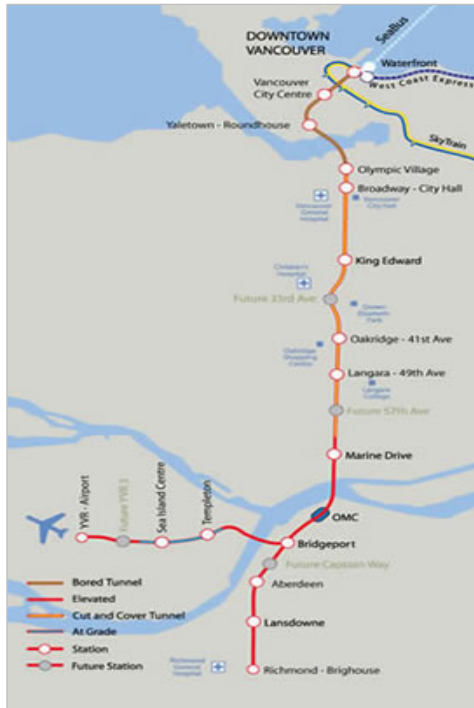
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Canada Line (Greater Vancouver Transit Authority), Canada

Creating a new rapid transit line

2004 – Ongoing

\$1.2 billion



Background

The Canada Line (previously known as the Richmond-Airport-Vancouver [RAV] Line) project is a 19 km rail rapid transit line linking downtown Vancouver, Vancouver Airport, and the City of Richmond in the Province of British Columbia. After Vancouver won the rights to host the 2010 Winter Olympics in 2003, the Province sought to advance a rapid transit link in the Richmond-Vancouver corridor and the Province provided a funding commitment for the project contingent on P3 procurement.

In December 2004, the lead public sector agency, Greater Vancouver Transportation Authority (“GVTA”), selected the InTransitBC consortium led by SNC-Lavalin to design, build, partially finance, and maintain the transit line. On July 29, 2005, the Canada Line project reached financial close with a complex structure wherein five public sector sponsors (Government of Canada, Province of British Columbia, GVTA, Vancouver International Airport Authority, and the City of Vancouver) approved C\$1.331 billion towards the project with the InTransitBC consortium investing C\$720 million. In the 35-year concession agreement, GVTA has retained ridership revenue risk and will set fares for the Canada Line because it controls the majority of British Columbia’s Lower Mainland transportation system. During the operating period, InTransitBC will be responsible for operations and maintenance and will be compensated by the public sector partners based on the availability of trains (70%), quality of service delivered (20%), and the achievement of ridership forecasts (10%).

Approach and Services

During the project scope development phase, KPMG LLP (Canada) advised GVTA on previous route selection studies for final route selection. KPMG LLP (Canada) also interfaced with technical advisors and analyzed all aspects of the decision, including costs, ridership projections, revenue projections, and environmental, economic and social considerations.

KPMG LLP (Canada) advised GVTA on the P3 project delivery approach and the public sector comparator that was developed to analyze whether the P3 delivery approach provides Value for Money. We analyzed the business assumptions and project financial model. We provided commercial structuring advice and conducted workshops and analyses to evaluate risk quantification, risk allocation, and risk valuation for the Canada Line.

Outcome

The Canada Line project encompassing the underground tunnel from downtown Vancouver, elevated guideways to downtown Richmond and Vancouver Airport, intermodal bus facilities, and 16 stations, is scheduled to open by July 2009, four months before the originally scheduled November 30, 2009. The Canada Line is expected to provide C\$92 million in Value for Money benefits compared to traditional public sector procurement.

Dublin Metro, Ireland

First step towards a metro system for Greater Dublin

2002 – Ongoing

Background

KPMG Member Firms are advising the Irish Railway Procurement Agency (“RPA”), an agency of the Department of Transport, on the Dublin Metro project. A flagship project in the Irish Government’s 10-year transport strategy, Transport 21, the Dublin Metro-North will be an urban light rail metro linking the North of Dublin to Dublin City Centre, through the airport and is the first stage in a metro system for the Greater Dublin Area.

The Dublin Metro-North project will address a significant need for public transportation and will facilitate development in the area. It has been estimated that development of the area will lead to 37,000 additional jobs and more than double the existing level of economic activity and employment.

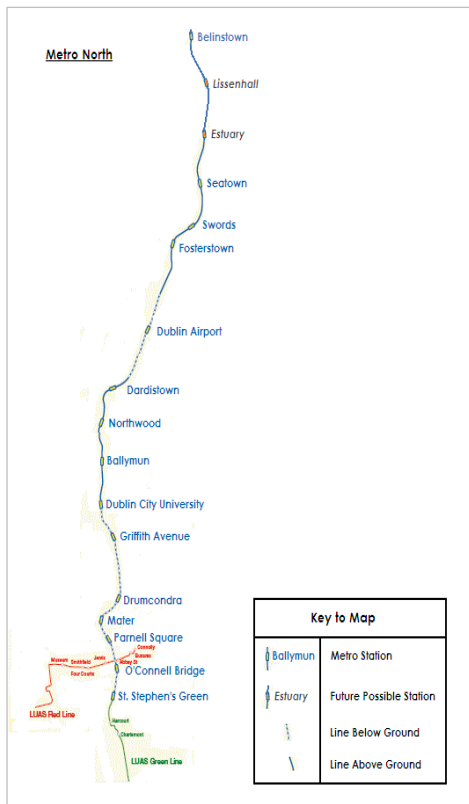
Approach and Services

KPMG Member Firms have provided strategic and commercial advice to RPA throughout the Dublin Metro procurement process. Between 2002 and 2004 KPMG Member Firms assisted in the preparation of the Outline Business Case (“OBC”) and provided support to the RPA throughout the approvals process. This included identifying the key objectives and constraints which would drive the business case for the Dublin Metro. KPMG Member Firms’ advice included:

- Development of a range of commercial/contract structures options and recommendation of a preferred option
- Identification and allocation of key risks and recommendations on where risks should be allocated
- Development of a range of procurement options
- Preparation of a financial model illustrating likely range and profile of payments by the Government over the life of the project
- Advice on funding options including how property development gains could be captured to help finance the project
- Assistance in developing revised proposals in 2003 which met an adjusted affordability envelope
- Undertaking significant market consultation which gave bidders confidence to tender for the project despite the lengthy approval process.
- Following the approval of the project in November 2005, KPMG Member Firms have assisted RPA with the project procurement process. KPMG Member Firms’ advice included:
 - Creating an innovative commercial structure for the project involving a single DBFM contract for infrastructure and rolling stock as well as a separate contract for operations
 - Designing procurement strategy involving the use of 3 prequalification panels (Infrastructure, Rolling Stock and Operation)

Outcome

Approval for the Dublin Metro project was received in November 2005 and Tender bids were received in February 2009. RPA plans to shortlist two tenderers by Summer 2009 to participate in the final stage of the competition. In November 2008, KPMG Member Firms were appointed to support RPA on the next phase of Dublin Metro, the Metro-West project.



York Rapid Transit, Canada

Reducing transit times with the implementation of a rapid transit system



Background

- The Region of York in Canada, in cooperation with the Town of Markham, Town of Richmond Hill and the City of Vaughan, selected a private sector partner for the implementation of the York Region Rapid Transit System. The project was one of Canada's first P3s and the first phase, the Quick Start Project, has been delivered.

Approach and Services

- As part of the engagement, KPMG LLP (Canada) developed the "cost confidence process." The client used that process to assist in evaluating the bidders' responses using a complex set of criteria. The process ensured that the proposal selected offered the optimal balance between the bidders' technical capability, partnering skills and financial offer. KPMG LLP (Canada) was engaged as the sole advisor to monitor the compliance of the "cost confidence process" and act as the lead firm for the process review for the first phase of York Region's rapid transit system.

Outcome

- The first phase of the York Region Rapid Transport System has been successfully completed. The rapid transport system will reduce overall transit times during peak travel periods by up to 40% along some of the most congested routes, ensure continued job growth and reduce air pollution.

Anaheim Regional Transit Intermodal Center (“ARTIC”), US

Creation of multi-modal transit hub

2008-Ongoing

\$200 million



Background

The City of Anaheim and the Orange County Transportation Authority’s (“OCTA”) ARTIC project will be a multi-modal transit hub involving light and heavy commuter rail, bus-based transit and inter-city rail, along with commercial, retail and residential development. The project is envisioned as a public-private partnership with transit oriented development that will complement the multi-modal hub. Its location is ideally suited to fulfill the role of a gateway or hub, enabling the effective and efficient movement of people and goods by various modes of transportation within Orange County and beyond to neighboring communities throughout Southern California.

Approach and Services

KPMG LLP has been financial and commercial advisor to the City of Anaheim since early 2008. The team is currently advising on project management and acting as financial and procurement advisor for the identification of service providers and a private sector partner for the project. Specifically, KPMG LLP is providing support in procurement for development partners, which includes strategic analysis of project issues including an assessment of market, design and development constraints. Furthermore, KPMG LLP was involved with the development of a cooperation agreement between the public agencies. Other services provided include: market and financial analysis of various commercial options and scenarios; assisting the City with the determination of appropriate commercial terms; and assistance with procurement and future negotiations.

Outcome

This project is ongoing. KPMG LLP presented analysis, findings and recommendations regarding the limited market conditions for immediate public-private partnership opportunities. These were considered by the City and OCTA when they changed the strategic direction of the project and decided to move forward with a design-bid-build delivery approach for the initial transit facility only. As market conditions for commercial development improve, KPMG LLP will help the City and OCTA to develop a project structure that maximizes the benefit to the region and the project commercial value.

RAVE High Speed Rail, Portugal

Creating a new high-speed rail network

2005 - Present

€9 billion



Background

Rede Ferroviária de Alta Velocidade, S.A. ("RAVE") is a public limited company, 60% of which is held by the Government of Portugal and 40% by Rede Ferroviária Nacional E.P.E. ("REFER"), the national railway infrastructure administrator. The RAVE project involves the construction of three high speed rail lines between Lisbon, Porto and Madrid to expand the Portuguese High Speed Rail system. The key aims of the project are to increase the efficiency of the transport system, enhance the European and Iberian High Speed Rail Network and promote regional development and competitiveness of the Atlantic South-West Front.

Approach and Services

KPMG Member Firms' initial role was to provide strategic planning advice, which included defining the commercial structure of both the transaction and the contracting models. KPMG Member Firms also provided independent financial advice and assisted with preparing the business case for the project.

In 2007, KPMG Member Firms were appointed to provide strategic and financial advice on project tenders. The tenders relate to the construction of rail lines and a rail bridge as well as the provision of signalling and communications for 550km of track. KPMG Member Firms' mandate also includes advising the client during the bid selection process, and preparing relevant economic and financial analysis.

Outcome

The strategic planning advice given by KPMG Member Firms enabled the client to develop a detailed capital plan and project structure. It also enabled the client to assess the potential of developing partnerships and contracting with the private sector, understand the potential bidders and assess options for contract structures covering infrastructure, rolling stock and operations.

In the long term, the project is expected to create 56,000 permanent new jobs and increase private investment in the region by €126 billion. It is estimated that the project will result in an increase in GDP of around €121 billion leading to a cumulative increase of €64 billion in tax revenues.

Reliance Rail – Sydney, Australia



Reliance Rail (Australia)

- Reliance Rail will deliver and maintain CityRail's new suburban passenger trains for the Sydney rail network, as part of the NSW Rolling Stock Public Private Partnership with RailCorp
- In exchange for an availability payment, Reliance Rail will provide 78 eight-car, double-deck trains between 2010 and 2013, with 72 trains to be made available on the network each day for a minimum of 30 years
 - Sydney rail commuters can expect enhanced features, improved safety and greater security in the new fleet
- The PPP Project represents the largest single rolling stock order with the shortest delivery timeframe ordered by any Australian railway - 626 carriages in seven years
- The joint venture combines Hitachi's global reputation for train reliability and safety, and its robust financial position as one of the world's leading services companies with the local expertise of Downer EDI Rail
- The new fleet will be maintained by Downer EDI Rail under a minimum 30-year contract with Reliance Rail
 - A new maintenance facility for the new fleet is being constructed at Auburn as part of the PPP Project

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