

**46 An emerging Australian icon: Moorebank Intermodal Terminal**

An interview with **Robin Renwick**, First Assistant Secretary at the Moorebank Project Office

**48 Learning from a megaproject best practice: UK's Crossrail leaves a lasting legacy**

An interview with **Andrew Wolstenholme OBE**, CEO, Crossrail Ltd

**52 Lessons from planners of large infrastructure projects**

A roundtable discussion with **Mike Proudfoot**, CEO of the Transportation Investment Corporation & **Susan Yurkovich**, Vice President, BC Hydro

with feature:

Canada: Mounties, moose and megaprojects

By **Brad Watson**, KPMG in Canada

**56 Building new cities in Mexico**

An interview with **Jeffrey S. Szeszko**, Project Owner and Lead Developer

**58 A historical perspective on megaproject development**

By **Darryl Murphy**, KPMG in the UK

**60 Learning from experience: A roundtable discussion with four megaproject masters**

**Keith Clarke**, Former CEO of WS Atkins & government advisor on sustainability

**Mike Nichols**, Chairman, Nichols Group

**Douglas Oakervee**, Chairman, UK's HS2 & Former Chairman and CEO, Crossrail

**Tony Ridley**, Former Senior Positions at MTR, London Underground & Eurotunnel

**64 Lessons from China – driving sustainable change through megaproject delivery**

An interview with **Victor Chuan Chen**, Professor of Engineering Management with the Business School of Sichuan University, Chengdu, Sichuan Province, China

**66 Lessons from the UK's nuclear program**

By **Tim Stone** and **Dominic Holt**, KPMG in the UK

**68 Global diary**

**70 Bookshelf**

# Around the world in infrastructure

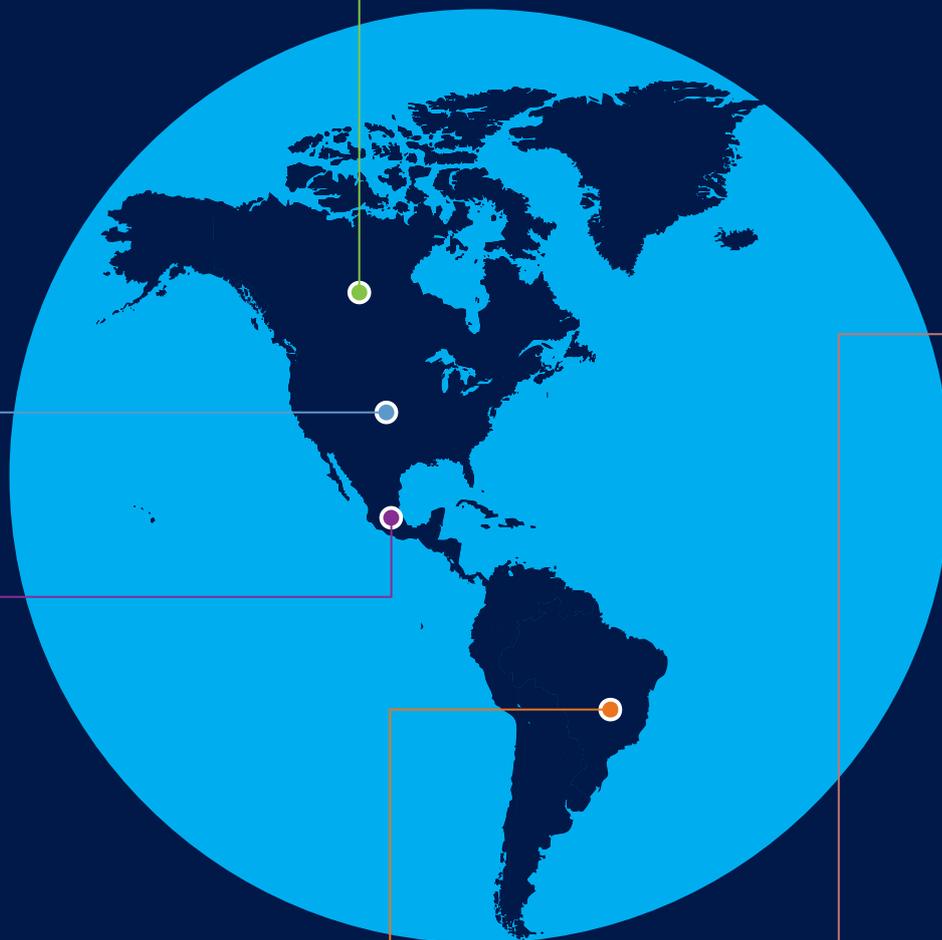
Private Public Partnership (PPP) structures for infrastructure development are likely to get a boost in **Canada** as public organizations reassess their use of the model. PPP Canada, a crown corporation dedicated to growing the PPP market in Canada, is currently assessing the model for delivering First Nations schools as well as federally operated toll bridges. In addition, municipalities across the country continue to investigate the PPP model in a host of different sectors – including the City of Sudbury with its biosolids treatment facility and the new Evan Thomas water and wastewater treatment facility for Kananaskis County. Several large-scale municipally-based transit projects are also on the near-term horizon with Ottawa, Toronto, Waterloo, Edmonton and Fort McMurray all at various stages of developing initiatives aimed at addressing their local transit needs.

In the **United States**, a number of new transportation projects are now moving forward in the Commonwealth of Virginia. After suffering several setbacks, the USD925 million I95 HOT/HOV Lanes Project reached financial and commercial close in July 2012. The project compliments the Capital Beltway project and is expected to help address the significant congestion in the area. Cleanup efforts are now underway in the aftermath of the devastation of Hurricane Sandy on the **US East Coast**. Learning lessons from the Gulf Coast's experience with Hurricane Katrina in 2005, the City of New York has engaged forensic professionals who are monitoring work progress and ensuring that all payments can be properly supported for reimbursement by FEMA and are free from fraud, waste, abuse and organized crime.

With tourism expected to rise as a proportion of **Mexico's** Gross Domestic Product (GDP) plans are now being drawn up for a new global tourism city in Caribbean Mexico. The privately-led project will be the largest private development in the country's history and will focus on providing tourists with an environmentally-friendly and well-planned vacation experience. Also in Mexico, the Federal Public Security Ministry has allocated eight prison projects that it expects to deliver as PPP projects over the next few years, two of which are to become operational soon.

With the FIFA World Cup and the Olympics rapidly approaching, **Brazil** is a hotbed of infrastructure development, with activity in almost every sector and region across the country. But other non-sports related projects are also underway, such as the USD3 billion PPP project aimed at delivering digital educational content to more than 4,000 public schools in the State of Sao Paulo.

The N33 Assen-Zuidbroek PPP road project in **the Netherlands** reached financial close in November. With a value of around EUR125 million, the project is also notable as the first PPP transaction involving a pension fund linked to Dutch CPI.



## Source:

CANADA	Federally Operated Toll Bridges: Government of Alberta, P3 Canada Fund to Contribute to the Completion of the Edmonton Ring Road, 10 October 2012; City of Sudbury Biosolids Treatment Facility: Greater Sudbury Government, Harper Government and City of Greater Sudbury to Improve Wastewater Management through P3, 12 December 2011; Evan Thomas Water and Wastewater Treatment Facility in Kananaskis County: Government of Alberta, Governments of Canada and Alberta Join in P3 to Renew the Evan-Thomas Water and Wastewater Treatment Facility, 12 September 2011
US	I-95 HOT/HOV Lanes Project: Virginia Business News, State awards \$925 million contract to private sector partnership to build I-95 express lanes, 31 July 2012
MEXICO	Prison Projects: McBains Cooper Project Information, Mexico Prisons PPP Programme, 2012
NETHERLANDS	N33 Assen-Zuidbroek PPP Road Project: The Construction Index, Royal BAM JV Closes Dutch PPP Road Deal, 22 November 2012



**Bent Flyvbjerg**  
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technology changes between planning and delivery. Essentially, the technology that was selected in the planning phase may actually be obsolete by the time the asset becomes operational. But it's not just technology change: political cycles, financial cycles and consumer preference cycles are all constantly changing and adding new complexity to the construction and delivery of megaprojects.

What it boils down to is that project leaders, owners and developers must strive to understand how all of this constant change will impact their megaprojects over the timeframe allotted. Ultimately, this understanding – and shortening project delivery – should reduce the level of complexity that megaprojects face.

**ED:** *Given the impact that megaprojects have on society, what should the relationship be between the public and private sector in the development of these projects?*

**BF:** Simply put, the two must work together closely to ensure that projects are completed successfully, on time and to budget. The reality is that megaprojects are – on the whole – just too big and complex for the public sector to deliver on their own and so a level of collaboration between the public and private sector is critical to achieving success. The public sector must look to the private to support a wide range of aspects from raising the funding required for investment through to delivering the systems and technologies on which the asset will operate.

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**Our experience tells us that it is not the size or scope of the megaproject that makes it complex, but rather the time factor.**

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Select a management team that can provide proven experience in megaproject delivery; someone who actually has a track record for delivering these types of projects on time and to budget and benefits.

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Similarly, the private sector must work closely with the public sector, even in those projects that are 100 percent privately funded and developed. Governments are responsible for upholding safety, environmental and other regulations, providing permissions for designs and zoning, and even how customer or user fees are structured, and all of this will have a significant impact on the eventual success of the initiative.

**ED:** *The allocation of risk often creates challenges at the early stages of megaproject development. Why is that and what can be done to reduce the impact of risk?*

**BF:** In many ways, the risks are rather similar to those found on any infrastructure project but – due to the

size of megaprojects – risks often become overbearing and eventually, can alter the relationship between the public and private sectors.

But the real challenge here actually relates to the contracting process. Far too often, we see the public sector put out tenders that try to push all or a very large amount of the risk onto the private bidders. What happens in these cases is that the project owner either gets a lackluster response from potential bidders or – more often – the bid price increases substantially, to hedge against the potential for the risk actually occurring, or bidders try to game the tendering process by underbidding and then making up for this through later scope changes, which is an ineffective way of doing things.





We very quickly came to realize that there was no point in building an inland port if we couldn't offer reliable, cost effective and efficient linkages between the intermodal terminal and the sea port at Botany.

**Robin Renwick**, First Assistant Secretary at the Moorebank Project Office

### MANAGING A MULTI-STAKEHOLDER ENVIRONMENT

The project team also needed to coordinate across multiple levels of government to ensure all stakeholders were not only involved, but also actively participating in the project. "The Moorebank Project Office is essentially a partnership between three Commonwealth government departments, but the port and surrounding roads are owned by the state, and the land around the terminal is administered by the local council," added Mr Renwick. "Layer over top all of the consultations that must be conducted with other government functions such as customs, environment and planning, and you are looking at a rather complex set of public sector stakeholders to coordinate and manage."

Given that the project is largely a commercial endeavor (albeit with significant social, political and economic benefits attached), the needs of the private sector are also being carefully considered. "The government does not want to design or build this terminal themselves and – wherever possible – we want the private sector to finance it," noted Mr. Renwick. "So a large part of what we are trying to do is essentially 'de-risk' the areas that the government can impact."

### TIPS FOR MEGAPROJECT SUCCESS

Based on his experience to date, Mr. Renwick has three key areas of advice for other megaproject owners around the world. The first is to ensure you have a clear understanding of the interdependencies of the project and what those entail. "This is essentially all about bringing together a really good team that includes key stakeholders as



well as expert advisors that can help develop a robust feasibility study and business case at the outset," he suggested. "Particularly in government-led projects, the need to provide strong evidence-based policy advice is critical to capturing broad stakeholder support."

Creating and executing a robust communications plan is also key to achieving broad-based support from stakeholders and the community. "I find that a lot of projects that ultimately fail to either get off the ground or achieve their projected benefits are handicapped by insufficient or inappropriate communications," he noted. "We engaged a communications research team and advisor to help feed in to the project on an ongoing basis and help us ensure that there weren't any surprises out there."

Thirdly, Mr. Renwick notes the importance of strong leadership. "Complex megaprojects of this size and scope absolutely require someone who can be a strong sponsor

and carry the project forward; someone that can bring together minds from across the public and private sector to focus on working together to achieve the stated outcomes," he added.

Ultimately, Mr. Renwick notes that no two projects are the same and that project owners and their advisors must therefore be cognizant of all of the unique factors that impact a project. "Anyone can throw money at a project and get the thing built, but there is a huge difference between building an asset and actually making it work in a way that delivers results for the stakeholders and the community," he summarized. "Inevitably, that tends to expand the project into a much broader range of issues and interdependencies than most project owners would expect."



“Right from the outset, we knew we had to identify and to work very closely with all of the key stakeholders, including government, NGOs and local communities, to communicate the strong benefits that our project will bring to the local economy, population and environment.”

**Jeffrey S. Szeszko**, Project Owner and Lead Developer

as development banks and sovereign wealth funds who we anticipate will likely have a very different set of investment parameters.”

The project has also focused on reducing both cost and construction risk by leveraging existing assets in the region. While much of the on-site infrastructure will need to be developed in a greenfield approach, the city will be in close proximity to existing trunk infrastructure and international airports. “In Mexico, we have tended to go out to virginal sites and to start building from scratch,” noted Mr. Szeszko. “But there is actually quite a lot one can do in terms of optimizing, renewing or improving existing assets, which not only reduces complexity but also tangibly benefits existing communities.”

#### ADVANTAGE MEXICO

For Mr. Szeszko and his partners, one of the greatest benefits that Mexico offers is a deep bench of highly-skilled professionals capable of moving megaprojects from planning through to operations. His team already comprises large groups of specialists in environmental law, financial law, urban planning, investment management, engineering and architecture, to name just a few. “While we have a tremendous depth of expertise here in Mexico, we’ve also tapped specialists of international repute from abroad with a view to leverage best practices and adapt approaches proven elsewhere to successful megaproject delivery in Mexico.”

With massive targets set for tourism growth, Mr. Szeszko suggests that there is no better time to invest in Mexico. “I believe that the country is on the cusp of a renaissance in terms of infrastructure investment and large-scale megaprojects. Mexico has lots of experience developing Public Private Partnership (PPP) models, a wealth of experienced professionals, and a proven capability of delivering projects both large and small, not to mention an overwhelming enthusiasm for growth and a deep seated sense of entrepreneurialism. Looking ahead, I am confident that we will see significant investment in infrastructure, spearheaded by government and the private sector alike.”

