Re-thinking how Canada Invests in Transportation Infrastructure

Finance Minister Bill Morneau's *Fall Economic Statement* along with announcements made in *Budget 2016* bring total federal infrastructure investment commitments to over $180 billion. These commitments include the creation of a new Canada Infrastructure Bank which will leverage federal dollars to attract private investment in infrastructure. These investment plans provide an unprecedented opportunity to re-think how Canada invests in infrastructure.

In its report *Unleashing Productivity through Infrastructure,* the Advisory Council on Economic Growth calls for the development of a federal infrastructure strategy. This briefing note proposes some guidance for a transportation infrastructure strategy.

Specifically, the federal government can get more from transportation sector investments by incenting actions that can in tandem drive greater productivity from existing infrastructure. It can do this by pursuing three complementary strategies:

1. **Seeking better utilization of existing infrastructure as a condition of investment in new capacity.** Many transportation system capacity constraints and bottlenecks are limited to specific "peak" periods. Federal investments would yield more value if tied to actions that spread demand for infrastructure to minimize peak congestion (e.g. incenting off peak travel on transit systems or highways), or that included operational changes that could improve capacity of existing facilities (e.g. moving to 24/7 port operations).

2. **Prioritizing projects with demonstrated alignment of stakeholder interests.** The highly successful Asia-Pacific Gateway and Corridor Initiative provides an excellent model. Federal investments could likewise prioritize investments where counterpart stakeholders are aligned around a common set of outcomes and where federal investments can lever private sector infrastructure and operational investments.

3. **Enabling and incenting innovation in infrastructure and related service operations.** New and emerging technologies such as automated vehicles, evolving operating practices such as sharing economy models (e.g. ride sharing), as well as innovations in information management (such as real time traffic information systems) can help get more capacity and productivity out of existing infrastructure. Federal transportation infrastructure investments could incent innovation and prioritize investments that deploy or leverage technologies that will help make better use of existing infrastructure, or make the transportation system more resilient. This would also help position Canada as a leader in the nexus of technology and infrastructure globally.

These simple and practical strategies go beyond traditional approaches to prioritizing transportation infrastructure investment that have tended to focus on concrete and steel solutions to bottlenecks and other capacity constraints.

They also go beyond federal investments in that they could help shape how other levels of government think about getting more from their transportation infrastructure assets and investments.

The rationale for such an approach is simple:

Getting more bang for buck: Transportation infrastructure needs across Canada exceed available funding to address them. Traditional transportation investment approaches that have focused largely on building new capacity – such as highway expansion projects – are very expensive. They also tend to generate new capacity constraints elsewhere. The three strategies noted above, focused on *utilization*, *alignment* and *innovation,* can have the triple benefit of reducing the capital cost of individual projects, stretching federal dollars over more needs across the country, and more sustainably influencing the behaviours that generate transportation system challenges.

> To borrow an example from the noted report by the Advisory Council on Economic Growth:
>
> *Traffic demand management on the M42 roadway in England has reduced journey times by 25%, accidents by 50%, and pollution by 10% - at only 20% of the cost of widening the road.*
>
> ***The strategy in this example suggests five times the value for money, and is more flexible, scalable.***

Leveraging public infrastructure dollars: A federal transportation infrastructure strategy focused on *utilization*, *alignment*, and *innovation* can help crowd in further investment. Beyond making better use of existing infrastructure, demand management pricing strategies such as high occupancy toll lanes can generate a source of revenue, which could either fund more infrastructure, or attract private investment, including through the proposed Canada Infrastructure Bank. Federal investment can also attract investment in non-federal assets. The noted Asia Pacific Gateway and Corridor Initiative, for example, leveraged $1.4 billion in federal dollars to achieve projects valued at $3.5 billion. A strategy focused on levering innovation and technology can further draw new investment in research and development in Canada, creating additional spinoff benefits.

Making Canada a global leader: Infrastructure investment is a key driver of productivity and national competitiveness. It also enables economic activity – beyond infrastructure construction – resulting in jobs and upward mobility. Making investment decisions that seek to better achieve *utilization*, *alignment* and *innovation* can facilitate these ends. This also positions Canada to lead by example in how infrastructure investments can be deployed, which has the additional benefit of helping attract talent and investment to Canada, and strengthening Canadian companies involved in infrastructure globally.

There is no better time to rethink a federal transportation infrastructure strategy. The magnitude and visibility of federal infrastructure investment plans have never been greater. The proposed strategies are proven and gaining traction in different parts of the world. Technologies that can help achieve better utilization of infrastructure are also advancing rapidly. Why wait?

Let’s seize the opportunity to leverage an unprecedented infrastructure spending plan to achieve **more** from federal transportation infrastructure investments.

The briefing note was developed by a self-styled, unappointed Advisory Council on Transportation Infrastructure Investment composed of independent subject matter experts from CPCS, a Canadian-based management consulting firm with strengths in transportation and related infrastructure strategy, economic analysis and policy. (www.cpcs.ca).

To further discuss these strategies, contact Marc-André Roy (613 237 2500 x 306, mroy@cpcs.ca)

Over the course of the next few weeks, other briefing notes will be released demonstrating the potential benefits of the strategies outlined herein. We hope they will further contribute to the dialogue on infrastructure investment in Canada.

CPCS