



THE VAN HORNE INSTITUTE



Colledge Transportation Consulting Inc.

INNOVATIVE SOLUTIONS



**The Path Ahead:  
*Assessment of the 2015  
Canada Transportation Act Review Report***

The Van Horne Institute  
Colledge Transportation Consulting Inc.

June 2016

## Contents

<b>1.</b>	<b>Introduction</b>	<b>3</b>
<b>2.</b>	<b>Context for the Review</b>	<b>4</b>
	Shifting Economic & Trade Outlook	4
	Competing in a Global Supply Chain Context	6
<b>3.</b>	<b>Key Transportation Policy Recommendations</b>	<b>6</b>
<b>4.</b>	<b>Ingredients for Success</b>	<b>9</b>
	Transportation Infrastructure Projects Pipeline	10
	Advisory Committee on Transportation & Logistics	11
	Centre of Excellence in Transportation	12
	Data Platform & Multimodal Dashboard	12
<b>5.</b>	<b>The Path Ahead</b>	<b>14</b>
<b>6.</b>	<b>About the Author</b>	<b>15</b>
<b>7.</b>	<b>About the Van Horne Institute</b>	<b>16</b>

## 1. Introduction

In June 2014, the federal Minister of Transport, the Honourable Lisa Raitt initiated a comprehensive statutory review of the *Canada Transportation Act (CTA)*, motivated by issues in the grain transportation and handling system. It is the first formal review in fifteen years (*Vision and Balance*, 2000-01). The CTA is the framework legislation for Canada's transportation system and for the Canadian Transportation Agency's role in administering the Act. The Act also establishes our National Transportation Policy.

The Review was Chaired by the Hon. David L. Emerson and supported by a team of distinguished Advisors. The objective of the Review was "to provide an independent assessment of how federal policies and programs can ensure that the transportation system strengthens integration among regions while providing competitive international linkages."<sup>1</sup>

On February 25, 2016, federal Minister of Transport, the Honourable Marc Garneau tabled "*Pathways: Connecting Canada's Transportation System to the World*" (*Pathways*).<sup>2</sup> *Pathways* is the result of more than 480 meetings and round table discussions with various stakeholders, 230 written submissions and 36 targeted research projects. Its more than 200 recommendations cover a broad range of topics from governance and the North, to an expanded role for the Agency as well as important changes to air/airports, passenger and freight rail and marine transportation.

A compelling new theme introduced in the report is that **transportation should be viewed as part of a broader agenda on trade and therefore the centerpiece of our long-term economic policy** because "the quality of transportation and logistics systems may be the single greatest contributor to a country's economic performance."<sup>3</sup> Supply chains are also critically important since "it is widely understood that a very important factor in Canada's future competitive success will be how effectively Canadian transportation is integrated into international supply chains."<sup>4</sup>

*Pathways* has the potential to produce some of the most transformational policies in more than five decades since the McPherson Commission (1961). However, there is a danger that such a large number of recommendations might obscure or dilute progress on implementation, or that Transport Canada has insufficient resources to implement the proposed new governance approach to policy development that could play a key role for Canada in reaching its significant trade and economic potential.

***The Path Ahead***, prepared for The Van Horne Institute by Colledge Transportation Consulting, provides a broad review of this new policy direction. As Canadian businesses, citizens and communities prepare for the future, several important questions arise:<sup>5</sup>

---

<sup>1</sup> Message from the Chair, Discussion Paper, June 2014.

<sup>2</sup> The report consists of two volumes with some important information and analysis contained in "Volume 2 – Appendices."

<sup>3</sup> *Pathways*, Page 4. Note: all subsequent references to page numbers refer to the *Pathways* reports Volumes 1 and 2.

<sup>4</sup> Page 9.

<sup>5</sup> *Pathways* is more than 500 pages in length. It is not possible within the scope of this Special Report to cover all issues and the transport of grain is purposely not included herein.

- What does the future hold for global trade and how can Canadian transportation be integrated into international supply chains?
- What are the key ingredients for success?
- Where do we go from here?

## 2. Context for the Review

At the outset, the Review recognized that to prepare for future success and prosperity **“it will be important for the Review to consider the key global trends and developing patterns likely to have an impact on Canada and the transportation system over the next 20-30 years.”**<sup>6</sup>

Adopting this long-term view, *Pathways* begins by looking back 30 years and highlights the fact that the Canadian transportation system has been transformed by a reliance on **competition and market forces** at the heart of transportation policy. This has yielded some impressive results: renewed infrastructure, improved operational efficiency, greater profits (for both carriers and shippers), more choice, and generally lower prices for users.<sup>7</sup>

*How was it done?* Governments pursued commercialization, divestiture of assets (e.g., ports and airports), deregulation of markets and liberalization of international trade and investment rules, although the latter is not strictly a transportation development. **The federal role essentially changed to that of a regulator, landlord, funding partner and enabler for specific initiatives.** The previous Review of the Act was an important catalyst for these improvements and the current Review recommends continued emphasis on competition and market forces as the prime agents for decision-making in transportation.<sup>8</sup>

*Where are we today?* Although the federal government has spent significant sums on infrastructure projects over the last 15 years, the approach has been “bottom up”, designed to stimulate local economies and create jobs, and not necessarily to address longer-term economic development requirements. This approach to project identification and funding leaves little room for projects of national scope and strategic importance. Based on the World Economic Forum Global Competitiveness Index (2014), **Canada is lagging behind our competitors**, ranking 14<sup>th</sup> out of 140 countries for the quality of its transportation infrastructure. The one exception noted in *Pathways* is air transport infrastructure.

### Shifting Economic & Trade Outlook

Since the 2008-09 economic downturn, growth in much of the world remains slow, particularly in advanced economies. Thirty years ago the G-7 economies accounted for about one-half of global GDP. Today, their share has declined to one-third while world GDP has grown as fast, or faster, than the average for G-7 countries every year since 1990.<sup>9</sup> Many economists believe that sluggish growth in advanced economies is the new normal. The long-term economic forecast is that OECD member countries' economies will have barely more than doubled over the next 30 years, compared with a 5 to 6-fold growth outlook for

---

<sup>6</sup> CTA Review Discussion Paper, <http://www.tc.gc.ca/eng/ctareview2014/discussion-paper.html>, Page 4.

<sup>7</sup> Page 5.

<sup>8</sup> Ibid.

<sup>9</sup> Appendix A: Economic Context, Page 7. G-7 economies: US, Canada, France, Germany, Italy, Japan, the United Kingdom.

emerging economies. These changes factor into a slowing long-term global economic and trade outlook as follows:

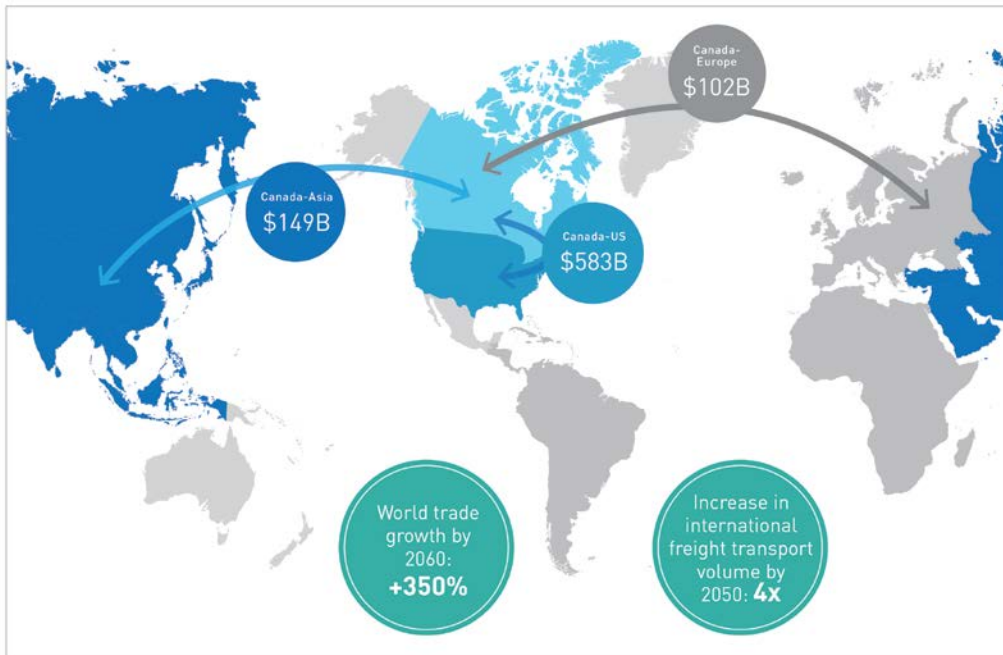
World Economic Growth Measures	Avg. Annual Growth Rate
GDP growth (2010-2050)	3.0%
Trade growth (2010-2050)	3.5%
Comparative Trade Growth (1990-2007)	6.9%

Source: OECD 2014 Economic Outlook

*What are the implications for Canada?* The shape of Canada’s transportation sector, and its contribution to Canadian prosperity, is profoundly influenced by global trends. In 2013, Canada’s combined trade with the U.S., Asia/Oceania and Europe was \$834 billion (Figure 1). By 2050, it is anticipated that international freight transport volumes will increase fourfold and the North Pacific will surpass the North Atlantic as the world’s busiest trade corridor. By 2060, world trade is expected to increase by 350%.<sup>10</sup>

While the U.S. remains Canada’s largest trade partner, accounting for 77% of Canadian exports in 2014, that share has declined from nearly 85% in early 2000s.<sup>11</sup> In future, large shifts in trade patterns will occur, reflecting uneven developments in income across the globe, relative productivity and an increase in services. China, India, Indonesia, other Asian economies and Africa are projected to experience sizeable increases in world trade shares. The trade share gains of emerging economies are most likely to occur at the expense of the Euro area whose share of world exports is expected to fall from 19% in 2012 to 12% by 2060.<sup>12</sup>

**Figure 1: Corridor Trade Values (2013) & Long-Term Growth Prospects**



Source: Adapted from CTA Review Discussion Paper with trade and freight growth outlook from Pathways, page 8.

<sup>10</sup> Page 8.

<sup>11</sup> Appendix A, Page 11.

<sup>12</sup> “Long-Term Patterns of Trade and Specialization”, July 2014, OECD report by Åsa Johansson, Eduardo Olaberria.

### Competing in a Global Supply Chain Context

Another key theme is the link between trade and transportation and the corresponding importance of supply chains in increasingly complex global networks. Canada depends on international trade to support our quality of life and standard of living. “The role of transportation and logistics has become increasingly critical to Canada’s international competitiveness . . . in fact, transportation logistics and supply chain efficiency is now seen by various research organizations as more important to global competitiveness than duties and tariff rates . . . [and] turbulence and change beyond our borders permeates quickly and deeply into the economic life of Canadians.” **A major challenge therefore is to develop capacity for rapid adaptation to emerging trends and changes, as well as natural disasters and other predictable disruptions.**<sup>13</sup>

*Pathways* emphasizes multi-modal gateways, transportation corridors and air hubs as key to connecting Canada to the global marketplace in the decades ahead. However, there is a recognition that emerging economic powers such as China, India, Indonesia and Brazil are driving competition and redefining business models that require restructuring of global supply chain strategies. These trends increase demand for raw materials and energy, and alter traditional trade and travel patterns. For example, Canadian exports to the U.S. grew by 14% in the last decade while its exports to the rest of the world increased by 65%.<sup>14</sup>

Given the complexity and global reach of supply chains, a key finding of the Review that comes out strongly in the recommendations is the **need for better and timelier information to “enhance efficient and resilient operations” and to provide “useful multimodal transportation statistics for effective analysis and decision-making.”** Other jurisdictions such as Australia, the European Union and the U.S. are increasingly using transparent data-sharing management solutions to foster collaboration and improved performance across their supply chains.<sup>15</sup>

## 3. Key Transportation Policy Recommendations

In order that transportation supports a broader supply chain and trade agenda to ensure Canada’s long-term economic success, the Review reached the following conclusions and new directions with respect to the recommendations for each mode.

Mode	Key Findings
<p><b>Air</b> Pages 184-205 Appendix K, Page 142</p>	<ul style="list-style-type: none"> <li>• Globally competitive air transport is key to Canada’s overall competitiveness and for Canadians - the World Economic Forum ranks Canadian airports among the best in the world for infrastructure quality (16<sup>th</sup>), but 135<sup>th</sup> for cost</li> <li>• The world is moving towards a liberal open market for air services and it is time to reconsider policies that address the three major components of competitiveness: cost, access and user experience to reduce the cost burden on the sector and ensure savings are passed on to users</li> <li>• The federal government charges “onerous rents and taxes” on airports (federal revenues from air transport exceed government investments by \$426.4 M) but does not provide the same level of investment as successful competing nations</li> </ul>

<sup>13</sup> Page 6.

<sup>14</sup> Appendix A, Page 11.

<sup>15</sup> Page 9.

Mode	Key Findings
	<p><b>NEW DIRECTIONS:</b></p> <ul style="list-style-type: none"> <li>○ Enable fast and secure connections through a <b>global air hub strategy</b> to better position the Canadian air sector to compete internationally</li> <li>○ Increase <b>foreign ownership of passenger carriers</b> from 25% to 49% and 100% foreign ownership of all-cargo airlines allowed</li> <li>○ <b>Privatize large airports</b> within three years</li> </ul> <p><b>Assessment:</b> Excessive federal charges on airports must stop since it is too expensive to fly to/from Canada versus U.S. airports. Consumers also face relatively high costs for air travel due in part to airport fees for carriers and travelers that impacts Canada’s competitiveness. There is a question as to how many airport hubs are needed to avoid duplication of investment. By opening up access to the largest global carriers without reciprocal access for Canadian carriers, there is a risk that Canada becomes merely a feeder rather than a competitive hub itself. Some major airport authorities are strongly opposed to privatization, noting that <i>Pathways</i> presents no conclusive evidence that the existing model is not working.</p>
<p><b>Freight Rail</b> Pages 112-143</p>	<ul style="list-style-type: none"> <li>● Transport Canada and the Agency must consider how railway supply chains enable or detract from Canada’s economic and competitive position and national transport policy should explicitly recognize the importance of transportation to international trade</li> <li>● The gap between railways and rail customers about what constitutes realistic service expectations must be closed</li> <li>● Railways, their customers and supply chain partners need to coordinate and align investments and operations to strengthen competitiveness and the ability to adapt to global market demands and intense competition</li> </ul> <p><b>NEW DIRECTIONS:</b></p> <ul style="list-style-type: none"> <li>○ Formalize the concept of a <b>National Freight Rail System</b>, including short line railways and <b>improve the investment climate</b> for rail</li> <li>○ Develop and publish <b>supply chain performance metrics</b>, including railway and shipper information</li> <li>○ <b>Amend level of service provisions</b> to include more clearly defined goals that recognize shippers and their collective needs in the context of overall rail system performance</li> <li>○ Establishing a dispute resolution unit within the Agency and <b>expand the Agency’s legislative and regulatory powers</b></li> </ul> <p><b>Assessment:</b> Railways are critically important to Canada’s trade, economic growth and prosperity. A system based on market forces and fact-based decisions is essential for continued future success. Incentives are needed for transparent, two-way exchange of information between railways and shippers. The creation of a new department to deal with disputes may provide more effective and timely options to resolve operational issues. However, railway managers rather than government agencies are in the best position to decide on the trade-offs required to operate the rail network. If the system wide implications of traffic demands and capacity on the national network are not properly understood by the Agency, private sector railway investment could be compromised. It is unrealistic to expect the industry to make significant investments in redundant (surge) capacity without adequate compensation. An agreed long-term master plan is needed to increase rail capacity.</p>
<p><b>Passenger Rail</b> Pages 170-182</p>	<ul style="list-style-type: none"> <li>● The federal government should position both freight and passenger rail services for long-term sustainability through planning and investments for separate rail infrastructure</li> </ul>

Mode	Key Findings
	<ul style="list-style-type: none"> <li>• Commuter and federally supported passenger rail would attract more riders if direct user charges were consistently applied to all modes of transportation (i.e., road tolling policy for private vehicles)</li> <li>• Maintaining passenger rail services is consistent with the government’s efforts to address climate change</li> </ul> <p><b>NEW DIRECTIONS:</b></p> <ul style="list-style-type: none"> <li>○ <b>Separate freight rail and passenger networks</b> to enable connections between and within urban and suburban areas</li> <li>○ Use infrastructure financing models that integrate the principle of <b>direct user-pay pricing</b> for rail and road modes of personal transportation</li> <li>○ Collaborate with provincial and municipal governments to plan for dedicated passenger rail tracks and eventual <b>adoption of high-speed rail</b> (30 year goal)</li> <li>○ Increase use of <b>private sector funding approaches</b> for federally-operated passenger rail services</li> </ul> <p><b>Assessment:</b> Given that about 80% of Canadians live in urban centres where the costs of congestion are huge (estimated at \$10 billion a year), a comprehensive approach to passenger and freight rail is welcome. Passenger rail/urban transit will be important to address Canada’s competitiveness, the livability of cities, climate change, an aging population, as well as the role of rail in attracting human capital and talent to our cities to drive productivity and innovation.</p>
<p><b>Marine</b> Pages 211-234</p>	<ul style="list-style-type: none"> <li>• Continue moving towards the commercial, market-based operation of ports that began with the <i>Canada Marine Act</i> in order to give ports the flexibility and private sector discipline to adapt to long-term trends</li> <li>• Government should play a greater role in the delivery of core marine services such as navigation and ice-breaking and to encourage greater use of marine capacity, including short sea shipping</li> </ul> <p><b>NEW DIRECTIONS:</b></p> <ul style="list-style-type: none"> <li>○ Strengthen the <b>governance and competitiveness</b> of Canada Port Authorities by adopting a share-capital structure and <b>private equity financing</b> to provide necessary capital for essential infrastructure, as well as legislation to enshrine economic development and trade and protection of the public and national interests</li> <li>○ Encourage regional <b>amalgamation of Port Authorities</b></li> <li>○ Promote <b>short sea shipping</b> to alleviate congestion in urban areas and reduce environmental impacts of transportation</li> <li>○ Immediately integrate the four pilotage authorities within <b>one National Pilotage Board</b> to enable a strategic and holistic approach</li> </ul> <p><b>Assessment:</b> Ports have an important role to play in the proposed National Framework on Transportation and Logistics (see Section 4 below). The federal government should revitalize its gateways and corridor strategy because port development projects spur major investments in regional and national supply chains, resulting in significant trade and economic benefits. It is critical to ensure collaboration between government and industry partners in planning and implementing major strategic port-related infrastructure projects. This requires mechanisms to develop and maintain an integrated system-wide data set across the port-hinterland supply chain to identify national transportation priorities. Ports also need greater flexibility in managing available industrial land that is reaching a critical shortage in some ports.</p>



## 4. Ingredients for Success

One of the main challenges in making transportation a centerpiece of long-term economic policy is that “unlike our competitors in Europe, the United Kingdom, and Australia, Canada lacks a comprehensive national framework or plan for transportation.” Consequently, **a central finding of the Review is the need to develop a global vision for the future of the Canadian transportation system.** The goal should be to establish a national framework “that builds on and optimizes the transportation system over the next 20 to 30 years. The strategy would identify investment needs in trade-enabling infrastructure, describe the proper regulatory and policy environment, and provide long-term stability for investments and investors in the system.”<sup>16</sup>

To achieve this goal, the Review recommended **a progressive new transportation governance model** for policy development because decision-making is viewed by stakeholders “at the heart of many of the issues raised, and key to resolving many of the problems that have plagued the transportation system for years”. Transport Canada would be the lead organization charged with developing a performance and evidence-based **National Framework on Transportation and Logistics.** The framework would be enshrined in the Act and would replace the requirement to conduct periodic statutory reviews of the Act because the new public-private sector collaborative approach would obviate the need for the Minister to authorize an extensive review of the Act every few years.

The key measures recommended to advance the National Framework on Transportation and Logistics governance model are:<sup>17</sup>

- 1) Intermodal and sector-specific strategies and investment plans, as well as defined infrastructure projects for the next 20 to 30 years in a **Transportation Infrastructure Plan and Projects Pipeline.**
- 2) Creation of an **Advisory Committee on Transportation and Logistics** for ongoing dialogue on transportation with representation from the entire multimodal transportation system.
- 3) A new **Centre of Excellence in Transportation** to provide expert policy advice aimed at enhancing the state of the transportation sector in Canada and marketing its position as an international hub.
- 4) A new **Integrated Data Platform and Multimodal Data Dashboard** within the Canadian Transportation Agency to support evidenced-based decision-making and a more efficient and responsive transportation network among private and public sector stakeholders.

A number of other changes were recommended to **“clarify and strengthen the Agency’s mandate.”** A key feature in this regard is that the Agency be granted the power to investigate and issue orders based on the analysis of data without having to wait for a specific complaint to be filed (i.e., having its own motion powers). Caution must be exercised in this area to

<sup>16</sup> Page 17.

<sup>17</sup> Page 18.

avoid unintended consequences or additional regulations that could undermine service performance, innovation and investment.

### 1. Transportation Infrastructure Projects Pipeline

Transportation infrastructure and the system’s ability to support the efficient movement of people and goods will enable Canada to benefit from global economic and trade opportunities and “be key determinants of Canada’s long-term economic performance.”<sup>18</sup> The lead time for major projects from planning to implementation can easily exceed ten years so the time to start is now. Other jurisdictions such as the United Kingdom, European Union and Australia have an ongoing private-public sector framework that “considers the entire national system and is geared to strengthening its contribution to economic prosperity.”

**KEY SUCCESS FACTORS:**

- Linking transport infrastructure to a long-term national economic plan (20-30 years)
- Identifying strategic investments considered vital for economic growth (a “short list”)
- Integrating a connected multimodal network of trade-related corridors (supply chains)
- Attracting private sector funding

A common success factor for these other countries is the link between transportation investments and economic plans. As shown in Figure 2, these countries also identify a “short list” of long-term strategic investment priorities (up to 50 years) and have a coordinated approach to planning, funding and implementing infrastructure priorities that underpin economic growth.

**Figure 2: Infrastructure Approaches in Other Jurisdictions**

<b>United Kingdom</b>
The United Kingdom introduced a National Infrastructure Plan in 2010. The key objective is to provide a comprehensive plan for strategic infrastructure required at local, regional and national levels in line with its long-term economic plan. The infrastructure plan covers transport, gateways, communications, energy, water, science and research projects funded by the public and/or private sector. It sets out a 10-year plan that identifies strategic objectives and 40 priority investments vital for economic growth, as well as establishing a pipeline of planned public and private investments to better inform industry and investors.
<b>European Union</b>
The European Union’s strategic infrastructure plan is based on a 2011 White Paper on Transport – <i>Towards a competitive and resource efficient transportation system</i> . Some key objectives are: to complete the core network of strategic infrastructure by 2030 for a single European transport area to unify the fragmented network into nine integrated, connected corridors deemed critical to economic growth, including telecommunications and energy; and to move to full application of ‘user pays’ and ‘polluter pays’ principles. The plan includes development of new financial instruments through the private sector and new sources/mechanisms for funding transportation.
<b>Australia</b>
Infrastructure Australia was established in 2008 to improve national productivity through a coordinated approach to planning, funding and implementing long-term infrastructure priorities. This new approach identified seven national themes to provide a framework to address the country’s infrastructure gap. The key objectives are to encourage better use of existing infrastructure, advancing national priorities, and assessing future infrastructure costs. The 50-year National Infrastructure Plan identifies the government’s strategic objectives and funding priorities, and provides the basis for a single national infrastructure fund.

Source: Appendix B, Pages 28-30.

<sup>18</sup> Page 22; infrastructure includes supporting logistics data, information and communications technology and innovation.

**The North: Vast Potential, Unique Infrastructure Needs**

The diverse northern territories are home to 0.3% of the population, yet comprise 40% of Canada’s landmass. Transportation is critically important to the quality of life and economic future of the North. The infrastructure gaps are varied and widespread and transportation must compete for funding with many other priorities such as water, waste and energy that also require infrastructure to meet community needs. Climate change is also a significant issue, posing challenges for road construction and maintenance. “The current approach to federal infrastructure funding and northern marine and air transportation policies is not sufficient in scope, or proceeding at a sufficiently rapid pace, to enable Canada to grasp the opportunities that the North offers.”<sup>19</sup> The Review recommended nation-building initiatives, both short and long-term, be established to attract investment and resource development, as well as to reinforce Canada’s sovereignty over its northern territory. The federal government should develop and implement an infrastructure strategy for all modes focusing on transformative nation-building projects in three primary corridors.

Resource Development Expenditures as a Multiple of Corridor Infrastructure Investment			
	Prospective Corridor Infrastructure Investment	Potential Resource Development Expenditures	Leverage Factor
Six major northern corridors	\$9.123 B	\$276.763 B	<b>30</b>

Source: Page 65.

**2. Advisory Committee on Transportation & Logistics**

Transport Canada established a Commodity Supply Chain Table (CSCT) in 2014 in response to issues in the western grain handling and transportation system. It is a forum for shippers, railways, ports, terminals and other partners to collaborate on ways to improve the rail-based supply chain. The Table is chaired by the Minister of Transport. The Review concluded that the CSCT’s mandate, membership and focus on rail and bulk commodities is too narrow to address systemic issues in the transportation network. Major non-grain shippers are also concerned that the special treatment given to grain has “impacted the railways’ service to Canada’s other shippers. Some view that less government intervention and less “picking winners and losers” in the rail system should create a more level playing field and create incentives for private investments in capacity and efficiency.<sup>20</sup>

**KEY SUCCESS FACTORS:**

- Managing the scope and process given the Committee’s broad mandate and composition
- Balancing competing interests of different stakeholders
- Establishing an effective forum for collaboration and getting the right level and type of representation from various organizations (e.g., senior executives, operations level)

The Review recommended incorporating the CSCT into the Advisory Committee with a broad mandate to provide advice on all modes. The Committee would be chaired by the Minister of Transport and vice-chaired by the Minister of International Trade to: address systemic issues affecting the transportation network; develop a long-term vision for transportation; advance corridors and trade-enabling infrastructure through industry-government partnerships; and further integrate Canada’s corridors in a North American and international approach. **In the absence of future statutory reviews of the Act, a possible shortcoming of this approach is that important issues and perspectives that may arise over time are effectively cut out of the process if some stakeholders are not fully represented on the Committee.**

<sup>19</sup> Page 62.

<sup>20</sup> Canpotex submission to the Review, December 30, 2014.

The inclusion of a large number of stakeholders on the Committee will only lead to an unwieldy and potentially ineffective forum. Consideration should be given to combining the work of the Committee with a shorter six-month review of Canada’s transportation policy and legislation, perhaps every five years.

### 3. Centre of Excellence in Transportation

An important recommendation is the establishment of an independent Centre of Excellence in Transportation, Logistics and Innovation that would complement the Advisory Committee and Data Platform proposals. The purpose of the Centre of Excellence is to create a “mechanism to spur innovation across the transportation system and across technology, logistics and policy realms.” The Centre would provide a way of centralizing human capital expertise in a single-window platform.<sup>21</sup> The Centre would draw from expertise already in existence at Canadian universities, firms and government agencies. It would provide “cutting-edge research and innovation” to ensure that transportation decision-making is supported by solid data and evidence “to address the most critical transportation challenges and opportunities of the day.”

**KEY SUCCESS FACTORS:**

- Governments and industry funding support
- Leadership and governance
- Composition from different academic institutions across Canada and private sector firms with research capabilities
- Ongoing coordination, communication
- Focusing on priority strategic issues and maintaining high standards of research excellence

Given modern information and communications technology and the convergence of audio-visual and computer networks, including cloud computing, the Centre of Excellence would not have to be a bricks-and-mortar institution. Rather, it could be a powerful virtual platform, bringing together through existing centres of excellence, the best minds in the business through an open architecture planning and research network.

### 4. Data Platform & Multimodal Dashboard

The Review found that all stakeholders across the country want better access to transportation data. It therefore recommended creation of an integrated data platform and dashboard of performance metrics across all modes to “facilitate enhanced transportation data collection and processing.” This function would be housed within the Canadian Transportation Agency, giving it a mandate to carry out a detailed assessment of what information is required to enhance performance by mode and across the supply chain.<sup>22</sup> It is suggested that better information about the transportation system would provide critical support to the Agency and enable it to determine whether and when it should exercise its own motion powers.

**KEY SUCCESS FACTORS:**

- Adopting a supply chain approach, consistent with the international trade and global competitiveness themes in *Pathways*
- Using the Centre of Excellence as a basis for authoritative data and data analytics
- Sufficient funding to support data collection and analysis and analysis of transport performance
- Basing new tools and data approaches in the marketplace as opposed to economic regulation

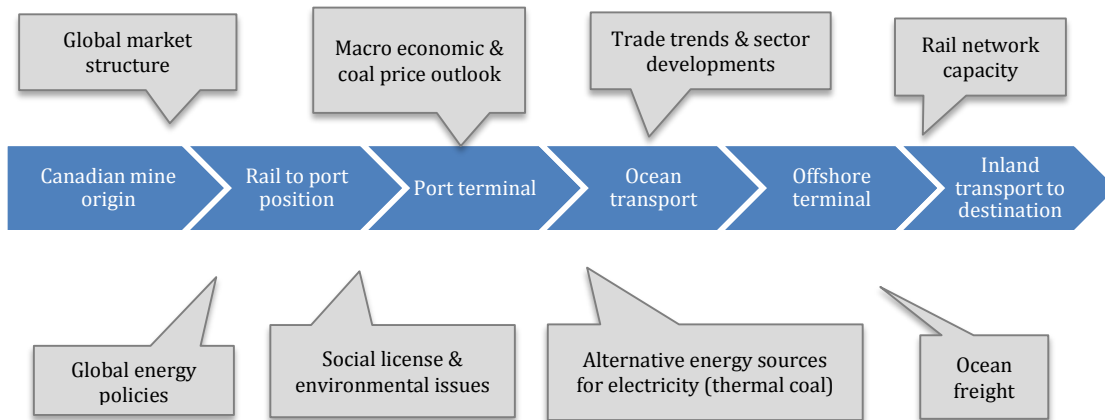
<sup>21</sup> Page 29.

<sup>22</sup> Pages 30-31.

Although *Pathways* indicates that Canada should at a minimum collect the same transportation data that is available in the U.S., it does not specifically discuss what data needs to be collected and the extensive resources required to develop and maintain a robust database. Transport Canada’s Supply Chain Table is mentioned as a step in the right direction through its Commodity Flow Survey under the Performance Metrics Working Group. Given the international trade and global supply chain premise in *Pathways*, the data platform used to support research and analysis would need to be radically different from today’s fragmented and ad hoc approach. Data and data analytics would need to be at the supply chain level and include demand, supply, current and forecast data, and include trade corridor and mode specific details.

Figure 3 provides an example for the export coal supply chain. In order to provide an authoritative transportation analysis at the supply chain level, a wide range of factors must be addressed such as the global market structure, macroeconomic outlook, global energy policies, production and supply outlook, trade trends and road, rail and port terminal capacity assessments. This sort of analysis would need to be done for every freight sector—grain, potash, sulphur, forest products, crude oil, import/export containers, etc.—as well as air transport. The sector-by-sector supply chain analyses would need to be consolidated to provide a picture of the aggregate demand on the transportation network. A system wide view is particularly important for any analysis of traffic demand on national rail network capacity. There would also need to be an industry engagement and validation mechanism, regular updates and a reporting framework. All of this could be accommodated under the network of Centre of Excellence discussed above.

**Figure 3: Export Coal Supply Chain Dynamics**



## 5. The Path Ahead

Just as the McPherson Commission Report set the course for railway restructuring in Canada so many years ago, *Pathways* has the potential to be transformational. The argument for a 20 to 30 year policy approach that shifts away from modal considerations to focus on supply chain excellence is a powerful centerpiece of long-term economic policy. A broad supply chain vision and innovative solutions to the most pressing multi-modal transport challenges that lie ahead will allow Canada to compete for years in global markets as the premier gateway between Asia and Europe.

Success critically depends on good governance in forging market based policies and regulations. As Dr. Emerson observed, “we have also come to the conclusion that the system is so complex and changes so radically and rapidly that a rules-based regulatory framework will not cut it . . . if you have to fix one thing, and the one thing is a series, a cluster of things, it’s around governance and decision-making.”<sup>23</sup> One of the most effective ways of supporting great decision-making is to establish a network of Centres of Excellence, drawing on the best talent and resources this country has to offer.

---

<sup>23</sup> Comments to the Standing Senate Committee on Transport and Communications, Ottawa, May 31, 2016.

## About the Author

David Colledge (B. Commerce, Transportation) has thirty-three years of freight and passenger transportation and logistics experience. He is the President of Colledge Transportation Consulting (CTC), a management consultancy specializing in strategic planning, market research, transport policy and socio-economic analysis. Since 2002, the company has completed some of the leading research and analysis in Canada on the Asia Pacific Gateway, as well as multi-modal supply chain planning and feasibility studies.

David has earned the trust and respect of an extensive network of industry contacts across a wide range of industries and sectors and has carried out research for Royal Commissions and federal transportation policy reviews. He has a reputation for objectivity and high quality communications by virtue of work with executive/Board level industry and government officials as the former Vice President of the Western Transportation Advisory Council (WESTAC). He has completed consulting assignments for the western Transportation Ministers on infrastructure and policy priorities in Western Canada and the Territories.

## About the Van Horne Institute

The Van Horne Institute is recognized within Canada and internationally as a leading institute of public policy, education, and research in transportation, supply chain and logistics, and regulated industries.

The Van Horne Institute was established to assist industry, governments, and the public in addressing issues affecting transportation, supply chain management/logistics and regulated industries that are relevant to the well-being and growth of industry and commerce. Efficient and low-cost transportation and logistics services are essential to both industry and the public in our geographically large country, so the evolution of sound industrial strategy, public policy, and progressive legislation and regulations are increasing in importance as business moves further towards globalization. Industry needs to be innovative to compete. The Institute will contribute to this competitive challenge through its education and public policy research activities.

The Institute was incorporated federally in 1991 as a not-for-profit organization, and is affiliated with the University of Calgary, the University of Alberta, SAIT Polytechnic, and with Athabasca University. Its Board of Directors brings together the experience and knowledge of a broad group of individuals representing all facets of the transportation industry, government, and the academic community that have an interest in transportation logistics and related regulatory issues.



**THE VAN HORNE INSTITUTE**

2500 University Drive NW  
Calgary, Alberta, T2N 1N4 CANADA  
Ph: 403-220-8455  
Fax: 403-282-4663  
Email: [vanhorne@ucalgary.ca](mailto:vanhorne@ucalgary.ca)  
Website: [www.vanhorne.info](http://www.vanhorne.info)