

# Building Capacity for TDM in Canada: Needs Assessment Report

Submitted to:

Transport Canada – Transportation Planning and Modal Integration Initiatives  
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# 1. Introduction

The purpose of this needs assessment document is to present a synthesis of the input gathered through the workshops and other elements of this project. It summarizes the most important **challenges** and **opportunities** facing those working to build capacity for transportation demand management (TDM) in Canada, and recommends a number of **priority actions** to be undertaken by key stakeholders.

## 1.1 Project overview

In May 2005, the Association for Commuter Transportation of Canada (ACT Canada) received funding for the *Building Capacity for TDM in Canada* project from the Transportation Planning and Modal Integration Initiatives program of Transport Canada.

The purpose of the project was to build capacity for the implementation of integrated, TDM policies and programs in Canadian cities and communities. Its specific goals were to:

- Build capacity for TDM in Canada by leveraging TDM as a required element of integrated urban transportation strategies that include land use and infrastructure
- Aid in the demonstration and evaluation of integrated strategies, planning tools and implementation practices that can reduce greenhouse gas emissions from urban transportation
- Support effective and timely research into innovative transportation planning initiatives in communities across Canada
- Provide and assemble a knowledge network for TDM professionals across Canada, contributing to a greater understanding of the state of current TDM initiatives and programs, and in particular, commuter options programs in Canada
- Support and enhance existing and planned efforts to promote and deliver effective TDM programs through knowledge exchange
- Build awareness and further educate public and private sector TDM practitioners, policy makers and decision makers on the potential benefits of implementing TDM and the state of TDM in Canada

The project had three main deliverables:

- Strategic alliance development
- Cross-Canada TDM workshops
- This report, which assesses needs for building TDM capacity in Canada

## 1.2 Summary of workshops

A cross-Canada series of seven workshops was organized by ACT Canada between November 2005 and March 2006. There were a total of 445 registered workshop participants including multi-disciplinary professionals (e.g. engineers, planners, elected officials, and experts in communications and public health) and professionals working in other fields interested in sustainable transportation and TDM.

Each workshop represented a collaborative effort between ACT Canada and the local community. Representatives from Transport Canada, ACT Canada and the local municipality presented at each workshop. In some locations, additional workshop presenters and sponsors (providing funding or in-kind value) were invited to participate. Workshop presenters and sponsors (indicated in bold text) are summarized in table on the following page.

The workshops consisted of two parts—an informational morning session with presentations on TDM in Canada, and an interactive afternoon session where participants were asked for their views on TDM capacity-building needs. (Note that a compressed half-day workshop was delivered in Quebec City due to participant time constraints.) In all locations, support for the workshops was significant and exceeded expectations on both participation numbers and level of interest in TDM capacity building. The presentations and comments received on challenges, opportunities and priorities for TDM in Canada at each workshop are available for downloading at [www.ACTCanada.com](http://www.ACTCanada.com).

In addition to the seven main workshops, input from members of allied organizations was received through presentations made by ACT Canada representatives to a combined audience of over 250 delegates at the following conferences: Canadian Parking Association (CPA) (Niagara Falls, November 2005), Canadian Urban Transit Association (CUTA) (Saskatoon, May 2006), Atlantic Parking Conference (Saint John, May 2006) and the Canadian Institute of Transportation Engineers (CITE) (Banff, May 2006).

Events conducted during this project therefore reached over 700 professionals and other interested stakeholders. Many other individuals visited the ACT Canada website to view or download presentations and reports pertaining to individual workshops. A primary project objective of developing and fostering strategic alliances necessary for leveraging leadership, promotion and facilitation of TDM integration amongst transportation, planning and development professionals across was achieved through the project activities.

<b>Workshop Location</b>	<b>Date</b>	<b>Sponsors and Presenters</b>
Halifax	November 8, 2005	Halifax Regional Municipality Tract Consulting Lura Consulting Transport Canada ACT Canada
Greater Toronto Area and Hamilton	November 18, 2005	BA Group Smart Commute Association Town of Markham Region of Peel Pollution Probe Transport Canada ACT Canada
Ottawa	November 21, 2005	City of Ottawa Transport Canada ACT Canada
Calgary	December 2, 2005	The City of Calgary Calgary Chamber of Commerce Canadian Petroleum Products Institute Alberta Infrastructure and Transportation The City of Edmonton Resource Conservation Manitoba Transport Canada ACT Canada
Waterloo	January 26, 2006	Region of Waterloo Canadian Urban Transit Association (CUTA) City of London Transport Canada ACT Canada
Victoria	February 2, 2006	South Vancouver Island TDM Forum VTPI CitizenPlan Consulting Capital Regional District CITE - Victoria Chapter BC Transit BC Ministry of Environment TransLink City of Kelowna University of Victoria District of Saanich Transport Canada ACT Canada
Quebec City	March 21, 2006	Réseau de transport de la Capitale (RTC) Resource Conservation Manitoba Transport Canada ACT Canada

### 1.3 Project participants

A significant catalyst for the success of the workshop series was a multi-disciplinary Advisory Team that included representatives from the key organizations in Canada interested and active in sustainable transportation. Together the delegates provided the demonstrated expertise, practical experience, theoretical knowledge, and policy understanding for TDM capacity building. Advisory team members represented the following organizations:

- Transport Canada
- Transportation Association of Canada (TAC), Sustainable Transportation Standing Committee
- Canadian Urban Transit Association (CUTA)
- Federation of Canadian Municipalities (FCM)
- Canadian Parking Association (CPA)
- Canadian Institute of Planners (CIP)
- Canadian Institute of Transportation Engineers (CITE)
- Victoria Transport Policy Institute (VTPI)
- Environment Canada
- Natural Resources Canada
- Public Health Agency of Canada
- Pollution Probe
- Green Communities
- Go for Green

Other active participants throughout this project included individuals on ACT Canada's Board of Directors, who represent the following organizations:

- Commuting Solutions
- Town of Markham
- Region of Waterloo
- City of Calgary
- Region of Peel
- Halifax Regional Municipality
- City of Ottawa

## 2. What is TDM and how can we build capacity for it?

### 2.1 What is TDM?

The following definition of TDM was used in the workshop series:

Transportation demand management (TDM) is...  
↓  
a wide range of policies, programs, services and products  
↓  
that influence how, when, where and why people travel  
↓  
to make travel behaviours more sustainable

TDM strategies strive to reduce traffic congestion, criteria air contaminants and greenhouse gas emissions while improving air quality and personal mobility. They can reduce the number of people driving alone by shifting demand to carpooling, transit, cycling, walking and teleworking. TDM can also shift travel demand from peak hours and congested routes to times and locations that are less busy.

The integration of comprehensive TDM strategies into land use and transportation planning can influence individual travel choices and provide economic, environmental and social benefits. Successful TDM strategies promote sustainability by increasing the efficiency of the transportation system and can reduce or defer the need for major road infrastructure improvements. TDM supports many goals of Canada's municipal, provincial and federal governments such as combating climate change, reducing air pollutant emissions, minimizing congestion, promoting smart growth, improving accessibility of employment opportunities, reducing the infrastructure deficit, and improving public health.

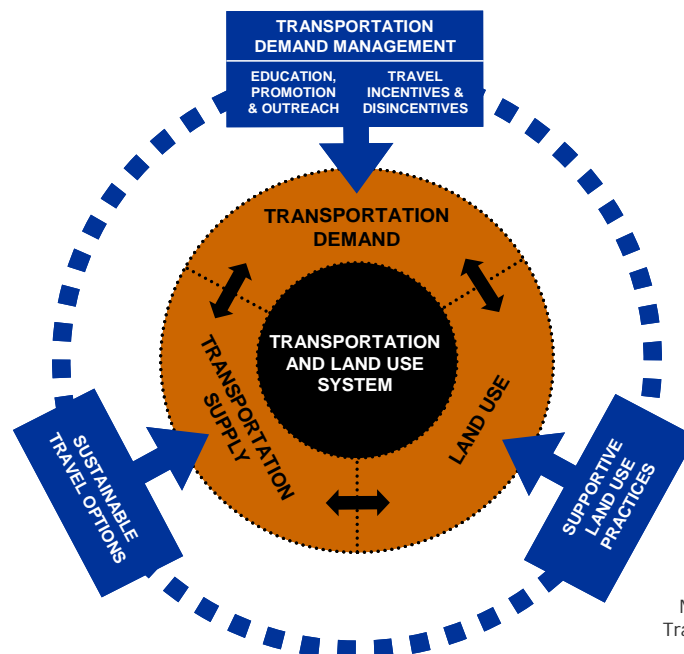
The target audiences for TDM activities are variable, and can range from the general public to employers, elected officials, and specific professional groups. The workshop series identified two major types of TDM activities:

- **Education, promotion and outreach** build awareness, understanding and positive attitudes about sustainable transportation choices. Possible measures include:
  - *Branding and positioning* to shape perceptions and remove biases
  - *Information and education* to enhance understanding of travel choices and the impact of these choices on congestion, air quality, personal health and quality of life
  - *Targeted marketing measures* to build individual understanding of choices, and offer incentives
  - *Special events* to raise awareness and encourage trial
  - *Recognition and rewards* to encourage leadership and success

- **Travel incentives and disincentives** offer a benefit or disbenefit related to travel choices. Possible measures include:
  - *Personal services* to help decision-making (e.g. ridematching, emergency ride home)
  - *Road/parking/vehicle pricing* to increase or redistribute car costs
  - *Transit pricing* to increase affordability and equity
  - *Commuter options* to make commuting less costly and stressful
  - *School-based measures* to encourage sustainable student travel

As illustrated in the figure below, a comprehensive urban mobility strategy involves TDM as well as complementary actions in two areas:

- **Sustainable travel options** make walking, cycling, transit and ridesharing faster, easier, more comfortable and secure. Possible measures include:
  - *Innovative travel services* to add new choices to the menu of available travel options (e.g. car sharing, station cars, vanpooling services)
  - *Transit service improvements* to increase speed, comfort or convenience
  - *Infrastructure changes* to improve travel options
  - *Modal integration* to improve connectivity of modes
- **Supportive land use practices** influence development to minimize travel needs, reduce trip lengths, enable efficient transit, and make walking and cycling more attractive. Possible measures include:
  - *Regional planning practices* to build compact communities through intensification and infill
  - *Area-specific planning practices* to make walking, cycling, ridesharing and transit more convenient and comfortable
  - *Zoning and site design practices* to encourage sustainable options



Noxon Associates for  
Transport Canada (2006)



## 2.2 What is capacity building?

Capacity building can be defined as **enhancing the potential of stakeholders to accomplish key goals**. With respect to TDM, measures to build the capacity of stakeholders could include:

- Creation of guidelines and best practices
- Data collection and dissemination
- Cost sharing for TDM programs
- Funding for demonstration projects
- Networking
- Professional development
- Public education
- Policy leveraging (e.g. “strings” attached to funding in other areas)
- Changes to taxation policy encouraging the use of more efficient modes of transportation
- Creation of partnerships among governments, NGOs and businesses
- Government leadership by example of TDM initiatives and programs

### 3. Opportunities and challenges

#### 3.1 Challenges to building capacity for TDM

The following table summarizes the nature of the most important challenges that face efforts to build capacity for TDM in Canada.

Area	Challenges
Social	<p><b>Entrenched individual behaviours and attitudes</b></p> <ul style="list-style-type: none"> <li>▪ Auto-dependent personal lifestyles</li> <li>▪ Poor individual perception of sustainable travel choices</li> <li>▪ Preferential tax treatment of automobile use for commuting or business</li> </ul> <p><b>Unsupportive urban environments</b></p> <ul style="list-style-type: none"> <li>▪ Established low-density, single-use urban development</li> <li>▪ Growing commute distances between work and home</li> <li>▪ Unsupportive parking management (e.g. free commuter parking)</li> <li>▪ Climate impacts on the perceived convenience of some travel options</li> </ul> <p><b>Lack of attractive options for sustainable travel</b></p> <ul style="list-style-type: none"> <li>▪ Poor transit service in growing markets (e.g. suburbs)</li> <li>▪ Lack of transit capacity growth to match demand</li> <li>▪ Street design/operations and development sites that are hostile to cyclists and pedestrians</li> <li>▪ Lack of preferential rights-of-way or parking facilities for ridesharing</li> <li>▪ Lack of support for telework</li> </ul>
Policy	<p><b>Lack of governmental leadership and support</b></p> <ul style="list-style-type: none"> <li>▪ Lack of visible government leadership and individual champions</li> <li>▪ Lack of interagency and intergovernmental coordination</li> <li>▪ Lack of municipal commitment and adherence to TDM-supportive policies, bylaws, zoning, and regulations</li> <li>▪ Lack of incentives or requirements for TDM-supportive development</li> <li>▪ Lack of integration among municipal transportation, land use, public health, education and environment programs</li> </ul>
Financial	<p><b>Insufficient financial resources</b></p> <ul style="list-style-type: none"> <li>▪ Lack of funding for TDM research, marketing and education</li> <li>▪ Lack of funding for TDM-supportive transportation infrastructure</li> <li>▪ Lack of requirement to conduct TDM within transportation infrastructure investment envelopes</li> </ul>
Programs, services & products	<p><b>Inefficient program development and delivery</b></p> <ul style="list-style-type: none"> <li>▪ Poor coordination of TDM service/product development and delivery by local governments (i.e. each one must “reinvent the wheel”)</li> </ul> <p><b>Weak understanding/support among partners/stakeholders</b></p> <ul style="list-style-type: none"> <li>▪ Poor awareness of travel options and impacts among stakeholders (e.g. employers, schools, institutions, developers, individuals)</li> <li>▪ Lack of incentives for buy-in and involvement by governmental and private-sector partners</li> </ul> <p><b>Minimal existing professional development and networking opportunities</b></p> <ul style="list-style-type: none"> <li>▪ Lack of support for dialogue and growth in TDM professional community</li> <li>▪ Lack of coordinated research and development</li> </ul>

### 3.2 Opportunities to build capacity for TDM

The following table summarizes the most valuable opportunities for TDM capacity building in Canada. These are not simply the “flip side” of the above challenges. Rather, they are “open doors” to strengthening the ability of partners and stakeholders to conduct TDM.

Area	Opportunities
<b>Social</b>	<p><b>Improve perception and understanding of sustainable transportation choices</b></p> <ul style="list-style-type: none"> <li>▪ Recognize and promote TDM success stories</li> <li>▪ Build on growing awareness of health issues due to automobile use (e.g. physical inactivity, air quality) by promoting sustainable transportation’s personal and public health benefits</li> <li>▪ Promote new tax credit for transit passes</li> </ul> <p><b>Create more supportive urban environments</b></p> <ul style="list-style-type: none"> <li>▪ Build on “smart growth” momentum by promoting TDM as an essential complement to compact, mixed use urban development</li> </ul> <p><b>Create more attractive options for sustainable travel</b></p> <ul style="list-style-type: none"> <li>▪ Require road infrastructure projects funded through intergovernmental agreements to accommodate and promote sustainable travel modes</li> </ul>
<b>Policy</b>	<p><b>Leverage federal leadership position</b></p> <ul style="list-style-type: none"> <li>▪ Position Transport Canada as a TDM leader based on credibility built through UTSP, MOST, Green Commute and Commuter Options programs</li> <li>▪ Offer commuter options programs in all federal workplaces</li> </ul> <p><b>Use “hot button” issues to encourage supportive political decisions</b></p> <ul style="list-style-type: none"> <li>▪ Use media and public interest in issues like climate change, children’s health, congestion and fuel price/supply to encourage supportive actions</li> </ul> <p><b>Promote TDM’s economic and health benefits</b></p> <ul style="list-style-type: none"> <li>▪ Encourage political commitment to TDM by demonstrating how it can reduce long-term spending on public health and road building/operations</li> </ul> <p><b>Establish coordination mechanisms</b></p> <ul style="list-style-type: none"> <li>▪ Build on recent growth in TDM activity and awareness by establishing a federal-provincial-municipal-NGO working group</li> </ul>
<b>Financial</b>	<p><b>Leverage intergovernmental infrastructure funding opportunities</b></p> <ul style="list-style-type: none"> <li>▪ Require TDM program planning and delivery as a complement to infrastructure funded through federal-provincial-municipal agreements</li> <li>▪ Require and fund the inclusion of TDM in integrated community sustainability plans (ICSPs) required through infrastructure agreements</li> </ul> <p><b>Provide incentives for TDM supportive measures</b></p> <ul style="list-style-type: none"> <li>▪ Expand preferential tax treatment to employer-provided transit benefits</li> </ul>

Area	Opportunities
<b>Programs, services &amp; products</b>	<p><b>Leverage established capacity</b></p> <ul style="list-style-type: none"> <li>▪ Increase awareness of existing tools (e.g. Commuter Options training)</li> <li>▪ Foster TDM network growth through support for ACT Canada</li> <li>▪ Promote TDM tools and resources for use by groups with demonstrated TDM experience (e.g. gained through UTSP, MOST, One-Tonne Challenge, etc.) and/or those targeted with local/regional TDM delivery</li> <li>▪ Promote tools, resources and practices aimed at more efficient use of on-road vehicles such as NRCan’s driver awareness programs and anti-idling campaigns, Environment Canada’s scrappage programs.</li> </ul> <p><b>Offer centralized development, delivery and support</b></p> <ul style="list-style-type: none"> <li>▪ Capture economies of scale for national research, toolkits, guidelines, etc.</li> <li>▪ Increase networking opportunities for TDM professionals and partners through workshops, conferences, etc.</li> </ul> <p><b>Make the “business case” for TDM</b></p> <ul style="list-style-type: none"> <li>▪ Meet stated interest of government, NGO and private sector organizations in seeing evidence of TDM’s benefits for different stakeholders</li> </ul> <p><b>Build support and involvement among employers and educational institutions</b></p> <ul style="list-style-type: none"> <li>▪ Develop programs, tools and resources to meet the known needs of employers</li> <li>▪ Develop programs, tools and resources to meet the known needs of educational institutions and youth</li> </ul>

## 4. Recommended priority actions

This chapter presents recommended priorities for TDM capacity building in Canada, in response to the most important challenges and opportunities discussed in Chapter 3.

### 4.1 Major strategies to build capacity for TDM

#### 1. Develop a federal program to enable TDM research, development and promotion, led by federal stakeholder departments working in the areas of TDM and sustainable transportation

This critical strategy has several key goals:

- **Coordinate national research and development** related to transportation decision-making, guidelines, best practices, needs assessment and success recognition
- **Encourage TDM implementation by municipal/regional governments** through financial support for demonstration projects and the provision of long-term, sustainable funding for ongoing initiatives
- **Develop national resources, services and products** that can help stakeholders conduct TDM strategies and reduce or eliminate redundant efforts. Examples include a TDM “business case”, best practices and case studies, guidelines, comprehensive employer program toolkits and templates
- **Promote resources, services and products** including those developed or offered through partners (e.g. NGOs such as ACT Canada) to stakeholders
- **Support TDM networking and professional development** and leverage the momentum and capacity developed through this project, by providing financial support to NGOs (e.g. ACT Canada) for national conferences, local workshops, meetings and networking events
- **Raise the profile and perception of TDM** by identifying champions and recognizing the employers, schools and municipalities that are actively promoting, supporting and encouraging TDM strategies
- **Promote TDM-supportive urban development** by researching legislation, regulations, policies and tools to encourage supportive land use and parking management strategies by municipalities, developers and employers

#### 2. Establish a Canada-wide TDM working group

- **Develop a national vision and strategy for TDM**, and increase collaboration, integration and information exchange among key stakeholders
- **Involve federal, provincial, (selected) local governments, NGOs and the private sector**, with potentially different membership classifications
- **Share information, coordinate initiatives** (see 3, below), develop priorities for research and development activities (see 1, above), and share best practices for government leadership by example (see 4, below)

### **3. Develop a national social marketing program to build awareness of TDM and sustainable transportation among key stakeholders and the general public**

- Involve multiple stakeholders, taking advantage of regional/local knowledge and the most effective & efficient delivery mechanisms
- Build awareness of sustainable travel options through integrated transportation, health, financial and environmental messages
- Offer materials to key stakeholders (municipalities, employers, schools)
- Demonstrate that the government is actively addressing a critical national issue

### **4. Demonstrate government leadership**

- Highlight, leverage and promote Transport Canada's role as a Canadian leader in TDM and sustainable transportation
- Encourage key stakeholders to embrace TDM, the federal government must demonstrate leadership by greatly expanding the availability of commuter options programs for its employees
- Provincial and municipal governments must demonstrate leadership by offering commuter options programs to their employees

### **5. Use policy leveraging to encourage TDM through infrastructure funding agreements (Gas Tax Fund, Canada Strategic Infrastructure Fund, etc.)**

- Ensure that TDM strategies and supportive infrastructure are required elements of funded projects

### **6. Extend preferential tax treatment beyond monthly transit passes to include employer-provided benefits for transit and other alternatives to single-occupant vehicle commuting**

- Amend tax legislation to enable the provision of tax-exempt employer provided transit passes
- Enable TDM stakeholders across the country to promote employer-provided transit benefits as a win-win solution
- Investigate tax legislation or tax credits that would enable or support sustainable commuting practices

For convenient reference, the following table summarizes the priority actions presented above. As a national organization representing TDM practitioners ACT Canada is envisioned to play a key role in those actions where NGO's are a vital component for success.

Recommended major strategies to build capacity for TDM	Key actors and roles				
	Federal	Provincial	Municipal	NGO	Private Sector
1. Develop a federal program to enable TDM research, development and promotion	●	•	•	•	•
2. Establish a Canada-wide TDM working group	●	○	○	○/•	○/•
3. Develop a national social marketing program to build awareness of TDM and sustainable transportation	●	○	○	•	
4. Demonstrate government leadership	●	●	●		
5. Use policy leveraging to encourage TDM through infrastructure funding agreements	●	○	○		
6. Extend preferential tax treatment beyond monthly transit passes to include employer-provided benefits	●	●			
<ul style="list-style-type: none"> <li>● Lead role</li> <li>○ Partner role</li> <li>• Supporting role</li> </ul>					

## 4.2 Quick start actions

As a complement to the major strategies identified in the previous section, there are several recommended “quick start” actions that can be undertaken in the short term without major changes to federal programs or policies.

With appropriate funding, ACT Canada is in a position to lead many of these actions in its role as a national repository and delivery mechanism of TDM programs, services, resources and products. Some of these initiatives have already been identified through ACT Canada’s internal planning processes.

- **Develop a “business case” for TDM.** Each potential stakeholder needs to understand exactly why they should be interested and actively support TDM. The development of a business case for TDM, grounded with facts on the economic, health, social and environmental benefits, is necessary to encourage and expand TDM support.
- **National TDM conference.** Commencing in 2007, hold a national TDM conference for stakeholders to build awareness, networking and collaboration.
- **Review of best practices and opportunities related to TDM-supportive development and parking management.** Develop guidelines and case studies for TDM-supportive parking policies and regulations. Parking management can be one of the most effective tools in sustainable transportation planning.
- **Workshops and seminars.** Conduct local or regional workshops or seminars on specific TDM elements (e.g. ridesharing, transit priority) to engage professionals and increase knowledge exchange.
- **Information network.** Develop and foster online TDM resources for stakeholders interested in TDM within existing stakeholder websites (e.g. UTSP, ACT Canada, CUTA, CITE, CPA, TAC)