Integration Technologies for Sustainable Urban Goods Movement

Prepared by Moving the Economy
(Appendix Three prepared by the Canadian Urban Institute)

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July 2004
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INTRODUCTION


The fact that the Chilean grapes you served at your dinner party last night probably travelled by refrigerated container across the Panama Canal before taking a Caribbean cruise, getting onto a train, then a truck, then to the food terminal and your local grocery store, before joining you for “the last mile” in your SUV or on your bike, is somewhat of a logistical miracle that happens thousands of times every day all over the world. The fact that if you go to the pharmacy after your dinner party there is a 99% chance they will have what you need is also impressive, if one takes the time to think about it.

The reality is that goods movement, and particularly urban goods movement, is for the most part so effectively organized along every link in the supply chain that we seldom think about it unless it breaks down. This is both its strength and its weakness.

On the one hand, urban goods movement is responsible for keeping our economy going and keeping us moving as a society – it gets us the “stuff” we want when we want it. An efficient goods movement system or lack thereof can make or break a person’s or a business’ decision to locate in a particular region. Goods movement, along with communication, is the silent underpinning to just about every physical need met and every business transaction made on the planet. As the glue that holds so much together, it is highly efficient and getting more so every year, responding to ever increasing competitive pressures to increase efficiency and reduce transportation costs, and benefiting from ever-emerging innovations in systems, technologies, policies and partnerships.

On the other hand, with fast growing, sprawling, congesting and polluting populations, coupled with fast shrinking infrastructure capacity (especially in urban areas) goods movement in Canadian cities and in North America as a whole is at a critical juncture. Following in the steps of European and Asian forebears whose denser urban cores and higher fuel prices have led to some hard thinking and smart innovating in this realm, urban goods movement is now on the radar in Canadian cities. And despite its relative door-to-door efficiency (especially relative to people movement), there are growing challenges to overcome if our Canadian cities are to remain both competitive and livable. While quite often goods movement efficiencies translate into both bottom line and ecological benefits, there some way to go before we experience a seamless, multimodal, clean and green urban goods movement network in our cities.

One of the challenges is that the public perception of goods movement often summons up too many noisy trucks on highways; rail, marine, and other logistics activities disturbing the daily lives of people in new residential developments built near logistics hubs or transfer points; and vehicles of all size and description stopping up local traffic and spewing diesel fuel while they load and unload their wares – even more wares in the wave of small and frequent e-commerce and just-in-time deliveries.

Described as a “beam me up, Scottie” attitude, “people want the goods and not the bads”. So despite its noble and usually silent role, urban goods movement can be perceived as at best an afterthought and at worst a blight on the urban transportation landscape.

The overarching challenge is its sheer diversity and complexity, eluding silver bullet solutions and requiring thoughtful, whole systems thinking and some major collaborative effort across just about every sector to connect the goods movement dots. While having been traditionally left to market forces and the private sector alone to “make it work” there is an emerging realization
of a very important public sector role for supporting coordinated, efficient, sustainable urban goods movement in Canadian cities.

About this Report

Transport Canada has identified the movement of goods within urban regions as a key emerging issue in Canada. While traditionally playing a very strong role in interurban freight movement through ongoing research and programs, to date Transport Canada and the federal government in general has just recently begun to take a keener interest and become more involved in the movement of goods in cities.

In general, public policy and R & D related to urban transportation has focussed primarily on the movement of people. However in cities in Canada and around the world, goods movement is growing apace with increasing populations and people movement. As a result urban goods movement is increasingly an issue of concern related to impacts on GHG emissions, air quality, congestion, and quality of life. Even though overall freight impacts are less than passenger impacts, freight transportation was responsible for almost 2/3 of the growth of GHG in Canada’s transport sector between 1990 and 2000, and currently accounts for approximately 41% of our transport-related GHG emissions.

On a positive note, new and innovative technologies and systems are emerging around the world that enhance urban goods movement efficiencies. Many of these solutions can be applied on an individual basis and achieve some reductions in GHG emissions, however as experienced elsewhere, integrating these technologies and systems for coordinated urban goods movement can achieve much greater results.

To date, there has been limited knowledge and information-sharing on integrating technologies and systems that could contribute towards coordinated urban goods movement in Canada. In addition, knowledge of case studies and best practices that could be relevant to Canadian city regions is sparse and fragmented. Other challenges include the lack of integrated goods movement as part of urban transportation planning.

As an initial step towards understanding urban goods movement and related potential R & D directions, Transport Canada’s PERD (the Program of Energy Research and Development) and the Urban Intermodal and Motor Carrier branch engaged Moving The Economy to undertake this scoping report on R & D directions related to urban goods movement in Canada. This initiative contributes to an overall aim of increasing the efficiency of movement of goods within Canadian urban centres and to reduce GHG emissions through the development of technologies and research and development.

This project links to the following federal government roles:

- building capacities within Canada to develop and deploy more efficient transportation systems, with responsible energy use;
- supporting the deployment of emerging knowledge, concepts, and technologies across all modes; across urban and rural areas; on inter-city and international corridors; and across the many jurisdictions;
- remaining abreast of and contributing to international R & D in efficient transportation systems (including best practices and international expertise).

It should be noted that in addition to Transport Canada, a range of federal departments deal with issues related to urban goods movement, including but not limited to Industry Canada (industrial efficiency, border crossings, and more), Environment Canada (climate change issues related to transportation and goods movement), Human Resources and Skills Development Canada and Social Development Canada (labour and employment issues related to urban goods movement), Tourism (freight effects on tourism, and industrial tourism opportunities), Heritage (planning around ports and more), CIDA (exportable innovations), and DFAIT (border and other international freight issues).
As this is an initial scoping study, it is premature to specifically identify potential benefits that might result. However, the ultimate intent of this effort would be to map out a systematic approach to incorporate research and innovation into a broader urban freight framework on integrated movement of goods. It would include the application of state of the art technologies and systems innovation, research needs, urban freight pilot studies, urban freight data collection, and incorporation of coordinated freight planning into urban centres.

In this context, this exercise went well beyond what would be traditionally understood as R & D to gather information on a much broader range of issues and concerns related to urban goods movement. The rationale for this was based on the fact that urban goods movement is complex and multifaceted and not well understood, and in order to understand the full range of R & D needs it is essential to gain a good working knowledge of the range of general issues and needs first.

As such the scoping took the form of 40 telephone interviews with key players in urban goods movement across Canada (as well as some international experts – see list, Appendix One). They represented the public sector at all levels of government, the private sector and industry associations in a range of industry sectors, the academic community, and labour.

Responses to the interview questions were generally enthusiastic and very supportive of better coordination of urban goods movement in Canadian cities. Respondents were very much in favour of increased collaboration both through Urban Freight Stakeholder Partnerships and through the development of a wider network of urban goods movement players across Canada. Overall responses pointed to the need to do work:

- to gather better information on the state of urban goods movement in Canadian cities (we know very little);
- to establish a better profile for the importance of urban goods movement to our economy and quality of life;
- to identify a wider range of Canadian urban goods movement players across sectors and to support their individual and joint efforts related to sustainable, efficient urban goods movement;
- to build on and connect existing Canadian successes in urban goods movement;
- to gain knowledge about, borrow, and adapt and implement successful approaches from around the world;
- to develop policies, legislation, and funding and financing mechanisms (both comprehensive and specific) to support coordinated urban goods movement in Canada;
- to identify and support innovation and export potential for Canadian urban goods movement innovations and successes.

It was generally noted based on experience elsewhere that the federal government could play a strong and positive role in the development of sustainable, efficient urban goods movement in Canada. Suggested roles included but are not limited to:

- communication and partnerships with urban goods movement players across Canada, to support a higher profile for urban goods movement, and to facilitate joint research and action that build on and connect local and international successes;
- development of policies, legislation, and guidelines to support coordinated, efficient, sustainable urban goods movement;
- working with other levels of government to better coordinate policies & legislation related to coordinated, efficient, sustainable urban goods movement;
- facilitation of the development of a common framework for coordinated urban goods movement in Canada.
• funding key urban goods movement research and action and participating in public private partnerships for pilots and ongoing urban goods movement activities;

• providing human resources and expertise to support urban goods movement networks and action;

• supporting and networking Urban Freight stakeholder partnerships, as well as the development of a broader urban goods movement network across Canada.

Based on interview responses, this report outlines key barriers to coordinated urban goods movement in Canadian cities as well as key drivers for success. General R & D needs are outlined but not weighted or prioritized. This could be the focus of future work by urban goods partnerships. Appendix Three, prepared by the Canadian Urban Institute, outlines the benefits of Urban Freight Stakeholder Partnerships in planning for and achieving coordinated, efficient, sustainable urban goods movement, and Appendix Four offers a preliminary list of sources for case studies and reports related to urban goods movement.


**METHODOLOGY**

Based on previous urban goods movement work, Moving the Economy (www.movingtheeconomy.ca) was engaged by Transport Canada to carry out this initial R & D scoping report. A small advisory committee with cross-Canada representation was then established to support the work. The advisory included:

- Vittoria Battista | Transport Canada
- Nicole Charron | Transport Canada
- Julius Gorys | Ontario Ministry of Transportation
- David McCusker | City of Halifax
- Murray McLeod | Region of Peel
- Glenn Miller | Canadian Urban Institute
- Brian Plant | Transport Canada
- Bill Raney | Ontario Ministry of Transportation
- Guy Raynault | Comité interrégional pour le transport des marchandises (CITM)
- Justin Terry | Transport Canada
- Mireille Trent | Transport Canada
- Jim Wang | TransLink - Greater Vancouver Transportation Authority
- Pierre Tremblay | Ministere des Transports du Quebec

The advisory met regularly over 6 weekly conference calls, identified interviewees and key resources, provided overall advice and direction, and reviewed documents, including this report. The Canadian Urban Institute compiled and wrote Appendix 3, outlining key advantages of Freight Stakeholder Partnerships and summarizing selected Freight Partnerships both local and international.

Since this initial effort is intended as a high level scoping effort, and in light of the tight timeline for the project, advisors recommended that an interview approach replace the initial intent to host an event. 40 key urban goods movement players from across Canada were interviewed, with some representation by international urban goods movement experts.

Interviewees (see Appendix One for complete list) were selected according to the following criteria:

- knowledge of / experience in / leadership related to urban goods movement (both specific and general, for all aspects);
- key policy role affecting urban goods movement;
- key stake in coordinated, efficient, sustainable urban goods movement;
- cross-Canada and international knowledge of UGM issues & options;
- knowledge of climate change and other environmental issues & options related to urban goods movement;
- availability in a short time frame.

Questions (see Appendix Two) were developed with the following aims:

- to get a general high level sense of issues & options related to R & D for urban goods movement;
- to get a sense of both immediate and long term issues & options;
- to get a sense of common R & D needs and issues as well as region-specific and sector-specific ones;
- to get a sense of how best to deliver / implement urban goods movement solutions.
KEY FINDINGS

This section summarizes responses by interviewees to questions on key barriers to and drivers of coordinated, efficient, sustainable urban goods movement. It also lists a “menu” of key R & D needs and options for further exploration. While the summaries and lists have not been prioritized per se, they appear somewhat according to frequency and emphasis of mention by broad category. It should also be noted that while not expressed as R & D needs and options, the barriers and drivers listed can be a rich source for identifying further R & D needs and options.

Barriers to Integrated, Sustainable Urban Goods Movement

Lack of Awareness, Understanding and Overall Vision related to Urban Goods Movement

- and its key importance to a region’s (and the country’s) economy and competitiveness, environment, safety, quality of life;

- as an issue of increasing urgency / importance and rapid growth;

- as a major source of congestion & pollution and related enormous costs (billions in congestion generally, and substantial cost to individual businesses) – although it should be noted less congestion and pollution are contributed by goods movement than by people movement;

- as multifaceted, complex, and interconnected issue involving many players;

- as an area for innovation (thinking outside the box) and for integrated solution building and sharing (home grown innovations that could be exported).

Lack of Information and Information Flow

- lack of detailed data on where goods are coming from and going as well as what goods movement means to our economy (GDP) and quality of life;
  - related to lack of awareness of issues and options, competition / proprietary concerns, feared lack of confidentiality and trust regarding its appropriate use
  - related to major costs and complexities of data collection of this nature
  - related to lack of coordinating systems and processes for gathering information
  - related to lack of mandate and resources to gather

- lack of understanding of the actual data problem, and the related need to get base lines for information gathering;

- lack of information on possible solutions and best practices – local and international.

Fragmentation

- of issues (transport, economic, urban planning, environment, social etc…);

- of players, solutions, jurisdictions – “silo-ing” of responsibilities (magnitude of the issue leads towards desire to fragment / chunk thinking and responsibility);

- of policies and legislation, especially across different municipalities, provinces, and Canada/US;

- of goods movement versus people movement – the need to share space / same infrastructure (there are fewer alternatives for goods movement in congested areas than for people movement);

- lack of coordination & no understanding of / mandate for / capacity for the linking role (at all government levels and within the private sector);

- of goals - environmental vs. economic, shipper needs vs. public needs vs. user needs;
• many different languages spoken related to urban goods movement by sector and by activity;

• some “position research” raises barriers to dialogue rather than enhancing cooperation

Inertia

• public sector inertia related to:
  - lack of awareness of the importance and urgency of the issue and the available solutions
  - lack of capacity to address the issue (knowledge, skills, human resources)
  - low priority for voting public (lower profile than people movement) and long time frame for goods movement solutions and benefits to be realized
  - goods movement is considered a private sector domain – that “industry will make it happen”
  - fragmented responsibility for various levels of government & lack of coordination on urban goods movement
  - red tape

• private sector inertia related to:
  - day to day time and business pressures and focus on bottom line (relentless competition for efficiency)
  - rather than seek a collective solution, private sector will often go around a problem to save time and resources
  - lack of knowledge of solutions that could affect bottom line (and networks to support this)
  - general resistance to change (cultural) without the external competition to motivate
  - fragmentation

Skills, Knowledge, Training, Human Resource Gaps

• not enough people going into many urban goods related fields (not sexy enough, not well enough paid / supported – e.g., it’s hard to find truckers and walking couriers);

• not enough cross disciplinary offerings to support the kind of knowledge & skills needed for innovation & application of urban goods movement;

• lack of adequate training for current and emerging urban goods-related areas;

• day-to-day pressures mean little time for training and upgrading even if it’s made available.

Pace

• timing, scheduling, are becoming more demanding (globalization, faster marketplace, relentless competition, e-commerce);

• the lifespan of goods is getting shorter (in turn incurring environmental and sustainability impacts).

Canadian Geography & Climate

• different needs in different parts of the country and in different sized cities;

• climate restricts marine and some other movement seasonally;

• large centres with lengths of sparseness in between pose particular challenges;

Funding and Financing Mechanisms

• R & D needs funding – Canada has not experienced the levels of the EU in Europe or T 21/ SAFE-T in the US;

• lack of leadership in public and private sector in this domain;

• tax structures can be restrictive related to development of goods movement properties in cities;

• funding potential is fragmented across various levels of government responsible for urban goods movement.
predominance of north south movement (with the exception of “the land bridge”) means Canada is very much affected by US policies & practices;

there are 4 to 5 versus 45 (US) key goods movement regions in Canada, all spread apart (hence no fallback networks in the case of one faltering).

Culture

- Canadian: innovative yet risk averse;
- Culture of transportation industry based on secure investment;
- Canadian: less sense of duty or responsibility for data collection and reporting (than in US);
- North American reticence for taxation solutions;
- North Americanized predilection for SUVs and big box.

Drivers of Integrated, Sustainable Urban Goods Movement

- Economic – Private sector:
  - financial returns related to increased efficiency (so that transportation becomes a smaller proportion of the overall cost of producing and distributing a good)
  - better ease of movement and less time lost in traffic (e.g., Boeing relocation)
  - more efficient systems resulting in better productivity / competitiveness
  - payback schemes to incent initial investments
  - government investment (“nothing motivates like seed money”)
  - government incentives, tax breaks, and / or funding
  - financial penalties for less efficient / desirable / clean practices

- Economic – Public sector:
  - improved regional and national economy and competitiveness related to efficient goods and people movement (and conversely if people can’t take goods to market, that resonates)
  - decreased congestion costs, health costs, environmental cleanup costs
  - labour market improvements / efficiencies – (including ease of getting to work related to reduced congestion)
  - environmental benefits including improved air quality and reduced GHG’s

- Competition and Buyer Demand
  - introduction by competitors of new approaches and technologies into marketplace
  - buyers demanding new approaches from suppliers (e.g., Wal-Mart and RFID tags)

- Governance
  - overall vision of coordinated urban / regional goods movement network (wide ranging strategy / guidelines based on in-depth widely represented dialogue and understanding, not an externally imposed masterplan or blueprint or fragmented
legislation). While private market factors play major role in urban goods movement practices, principles and actions to guide coordination are necessary.

- facilitation of partnerships across all urban goods movement-related sectors (to engender a sense of ownership, trust and transparency)
- political leadership and commitment
- commitment of investment (financial, human, & other resources)
- (consistent) legislation and policy to support coordinated urban goods movement (mandate for urban goods movement – “teeth”)
- incentives and restrictions related to:
  - product and technology development
  - service delivery
  - innovation
  - financing
- coordination amongst all levels of government

• Commitment, Leadership, Profile
  - individuals within the company or department who are committed to innovation, environment, and integration can inspire long term organizational culture shift (e.g., the Bay, Transport Canada)
  - improved profile related to integrated urban goods movement

• Safety
  - and related cost savings / profile, both public and private

• Livability (Social / Environmental)
  - public sector – attract and keep people and businesses in the region
  - private sector – attract and keep skilled, healthy, productive workers

R & D MENU OF OPTIONS

1. SECURING DATA


In addressing the major lack of urban goods movement data in Canada, respondents emphasized the need to first establish key relevant data needs (in order to avoid duplication of efforts or the collection of irrelevant data) and to determine approaches and methodologies for collecting data that build trust and transcend proprietary limitations.

Data needs first emphasized were the characteristics of what, where, and how goods are currently being moved in city regions, such as:

- origins and destinations by mode (rail, marine, air, truck, taxi, personal automobile, bicycle & foot courier)
- types of goods
- value of goods
- vehicle counts
- vehicle weight
- axle configuration
- types and sizes of loads and configuration of vehicles used
- composition of fleets and turnovers including mix and age of vehicles
- delivery times and peak and off-peak hours
- goods movement patterns / characteristics, for example:
- locational demands and changing patterns of demand
- identifying end destination versus through-traffic in regions
- traffic generated by intermodal hubs
- general modelling of bottle-necks and delays
- vehicle speeds and travel times over road/corridor segments

• border crossing data

• current Transportation Capacity (asset base)

Data needs also included understanding the effects and impacts of goods movement (both positive and negative):

• on the economy (by mode and across modes) and on regional competitiveness;

• on the relationship of urban goods movement with economic production, trade, and trade surplus;

• on the environment and air quality (by mode and across modes);

• on infrastructure (e.g., heavy trucks and pavement impact);

• on passenger movement and resulting productivity and quality of life factors;

• on noise incidence and impacts;

• on public health;

• on safety and security;

• on general social factors, quality of life, and employment;

• effects of e-commerce, Just-In-Time, sole-sourcing (greater distances between production facilities) warehouse consolidation, inventory reduction, globalization (e.g., increasing number of products being shipped from great distances) and other emerging trends and practices on goods volume and flow and related congestion and pollution

Finally, there was a need for integrated analysis and forecasting, including:

• Forecasting future urban goods movement demand and assessing its economic impact (to support rationalization and prioritization of major transportation infrastructure decisions);

• Forecasting flows on networks to assess and evaluate the opportunity of specific infrastructure project or policy implementation (including TDM);

• Analysis of the optimal balance between modes, types of goods, types and times of delivery, across the entire supply chain and across passenger and goods movement, to balance economic, environmental, and social factors (based on common assumptions across modes and systems). For example:
  - full cost accounting by mode and optimal mode for purpose
  - long haul vs. short haul and the relative efficiency of getting long haul closer to the user
  - which activities require Just-In-Time
  - how rail and marine could better meet user needs
  - options for non-traditional cargo by mode
  - considerations of weather / climate for all modes and by specific mode e.g., marine’s limitations for 3 months of the year
  - conflict points and balancing points between movement of people and goods
  - time series data to relate current and future goods movement trends
2. CASE STUDIES AND BEST PRACTICES

Supporting case studies and reports was identified as very important to better understanding urban goods movement issues and options.

In particular, case studies were seen as useful:
- to illustrate that solutions exist (inspire hope);
- to provide lessons learned - good and bad, not solely “best” practices;
- to avoid duplication of efforts and to build on what has been done in Europe, the US, Asia, and elsewhere - “a glimpse of the future”;
- to understand how to implement / adapt these options (how things really work);
- to inspire transfer of innovation / solutions from one sector to another;
- to provide benchmarks for achieving integrated urban goods movement;
- to promote communication amongst urban goods movement players.

Case studies are different from best practices which are closer to standards and operating practices. Case studies do not have to be “best” but rather can communicate lessons learned, both positive and negative.

It was noted that the case studies and reports are very dispersed among sources and sectors, and that a clearing house of searchable, annotated information links related to urban goods movement would be very useful.

A number of specific case studies were sited over the course of the interviews. Extensive case study research and writing was not within the scope of this very time-limited exercise however Appendix 4 includes a listing of some key sources for urban goods movement-related case studies and reports.

Support the Collection and Dissemination of Case Studies and Best Practices from around the world. These case studies should apply to both the demand side and the supply side of urban goods movement, including:

- data collection approaches including aggregate (non-proprietary) collection and distribution of proprietary data;
- emerging systems, technologies and approaches related to sustainable, integrated urban goods movement;
- financing mechanisms and solutions and economic approaches;
- knowledge development, education, skills training and employment, and career support;
- supportive and integrative policies and legislation;
- partnership, governance and institutional approaches;
- measurement tools (including emissions measurement) and indicators.
3. ENVIRONMENTAL SOLUTIONS

Interviewees generally made a strong connection between efficiency, reduced environmental and social impacts, and improved bottom line, meaning sustainable, coordinated urban goods movement can be and often is win-win-win. Added benefits include improved corporate profile and community relations. However it was noted that the initial high cost of increased environmental efficiency could often only be born by the larger companies, and that providing financial and tax and other incentives to greening efforts would allow a wider segment of the industry to reap the paybacks over time.

Support environmental innovations and applications such as alternative fuels, efficient vehicles, and greening, including:

- a range of current and emerging alternative fuel options (including biodiesel and natural gas);
- posted speed limits to 100 km/h for goods carriers to support fuel efficiency;
- driver training for CO2 reduction;
- electric vehicles for a range of purposes (including municipal garbage fleets);
- exploration of optimal vehicle sizes – smaller for more efficient urban movement, and larger for CO2 reduction for larger loads;
- efficient vehicle and engine design (including hybrid railway engines);
- human powered delivery including foot and cycle couriers and urban core deliveries by cargo bike;
- sustainable mobility / passenger movement to support efficient urban goods movement;
- greening of transportation hubs / interchanges, freight campuses, and ground airport facilities and connections;
- life cycle analysis and Natural Step for both individual companies and for the entire the supply chain;
- financial and tax incentives for greening initiatives;
- environmental measurement approaches, such as US EPA’s SmartWay.
4. INTERMODAL AND SUPPLY CHAIN EFFICIENCIES INCLUDING BORDER CROSSINGS

Goods movement’s supply chain approach generally surpasses efforts and successes in integrating passenger movement. Yet even better and more efficient movement across the supply chain, especially in urban areas, was seen as key to urban goods movement successes. Such integration can be facilitated by improved communication, technologies, systems, and partnerships.

Support the development and application of integration approaches and technologies that bridge modes, sectors, and jurisdictions, and make better use of and build on existing assets, including:

- intermodal systems and technologies that better link any or all of: truck, train, marine, air, bicycle, foot (explore current truck-air trend);

- physical consolidation
  - freight campuses, logistics centres and reload centres (including servicing by rail) – understand pre-requisites for peak efficiency, and options for avoiding through-traffic related to logistics centres and resulting impacts in major urban centres. Explore airport drop-off facilities.
  - retail consolidation – suppliers and buyers clustered, e.g., hospitals, food terminals

- research “invisible” components of urban goods supply chain including taxi, personal automobile, and foot and cycle couriers to support greater efficiencies and links, especially related to “the last mile” of the supply chain;

- explore and support the development of new enterprises that link systems (for example at BCE Place in Toronto there is a package drop off desk that services the whole building and saves time and hassle for couriers, as well as congestion and pollution effects of waiting in traffic);

- explore design solutions to maximize efficiencies across the supply chain including product design and reduced packaging, integrated system design, and urban design (see also urban solutions section);

- Information management to support seamlessness and timeliness of transfers;

- ITS applications that link modes, services, enterprises and institutions, as well as passenger and goods movement (see ITS section);

- cross-utilization of existing metropolitan passenger networks for urban goods movement (including rail, subway, marine);

- communication / partnerships / human interaction to support integration across the supply chain e.g., enhanced supplier / buyer relationships / communication;

- policy, legislative and institutional approaches to support integration, as well as integration / rationalization of the policies themselves.
5. TECHNOLOGY: I.T.S., TELEMATICS, AND INTERNET SOLUTIONS

ITS is already a key enhancer for goods movement in general and could have an increasing role in urban goods movement. Canada has pioneered a range of ITS and telecommunications applications that relate to urban goods movement however much remains to be explored and developed in this area. Most large companies develop and employ sophisticated ITS applications to make their operations more efficient, however there is great potential for ITS to address sparse and fragmented information and coordination of smaller movements, as well as coordination between all urban goods players.

Some ITS applications that related to urban goods movement include telematics, trucking communications, GPS / satellite positioning and real time traffic data, transponders, cell phones, AVM (automated vehicle monitoring), scheduling, and much more.

Support the development and application of ITS, telematics, and modeling systems and technologies:

• to support greater efficiency by mode / sector;

• to link modes, services, enterprises and institutions;

• for route optimization and load optimization of all individual modes and across modes and services, and to enable virtual trans-shipment schemes, such as Freight Traders in Europe where loads are auctioned on the internet;

• to support supply chain efficiencies, inventory control, and information control (e.g., Walmart’s RFID);

• to support efficient border crossings (e.g., pre-clearance, information gathering, electronic seals and transponders, weight in motion, displaying delays or length of queues, etc.);

• to enable aggregate information gathering of proprietary urban goods movement information;

• to provide advanced traveller information including weather information (and to employ vehicles as important traveller information sources);

• to support information about and coordination of smaller urban goods movements / “the last mile”;

• system modelling and activity modelling to support planning;

• to support greater integration of / balance between passenger and urban goods movement;

• to support more efficient passenger movement such as congestion pricing applications, smart cards, traveller information, and more...
6. URBAN, LAND USE, AND TRAFFIC PLANNING SOLUTIONS

One of the key R & D needs cited focused on how to facilitate and plan for the movement of goods into and around urban areas. While the Europeans and Asians with their denser urban cores and narrower streets have had to face the challenge earlier, Canadian cities are just now beginning to see urban goods movement as an increasingly important part of urban / land use planning and traffic planning. A few reasons have been suggested for this gap to date:

- only now are we running out of infrastructure capacity, necessitating “smarter” solutions;
- goods movement has traditionally been seen as a private sector activity, to be addressed by economic development planners if anything, and traditionally not transportation planners;
- when faced with a challenge in urban goods movement, private sector players tend to find ways around it rather than to organize a collective or planning / policy solution;
- the multi-faceted nature of urban goods movements, especially the smaller ones, obscures their significant cumulative effects (and the hope of satisfying solutions) with the result that the urgency of goods movement planning is obscured by the seemingly more pressing need for people movement planning;
- there is insufficient information on the many smaller and sometimes “invisible” goods movements in the city, for example, smaller trucks, taxi cabs, cycle and walking couriers, and private automobiles. For example, 20% of the car trips in Toronto are for transporting food. There are thousands of bike and foot deliveries per day in most major cities.

The tide seems to be turning in Canada for urban and regional planning related to urban goods movement, as evidenced by the number of suggested areas of exploration listed below, and by the emergence of Freight Stakeholder Partnerships and other urban and regional efforts across Canada.

Support and explore the following urban planning approaches to urban goods movement:

- Land Use and Urban Design
- Demand Management
- coordination of Smaller (Capillary) Movements
- Local Production and Distribution

Land Use and Urban Design

- develop a better understanding of the relationship between land use and urban goods movement and make better links between urban goods movement and urbanism in general
- promote development of overall municipal and regional land use policies (and long term plans) that are supportive of coordinated urban goods movement, and introduce urban goods movement that is balanced with passenger movement into smart growth / growth management strategies as a policy priority
- explore a range of planning related issues including:
  - locations of industrial parks and the effects of transportation (and accessibility issues) on decisions to locate businesses
  - the development of freight as well as passenger corridors
  - implications and solutions related to power centres / big box stores
  - explore preferential zoning for urban goods movement purposes
  - level crossings, grade separations, and overpasses
  - proximity guidelines to address urban encroachment on railyards, marine hubs and logistics centres
  - industrial tourism uses for urban goods movement hubs
Demand Management

- night-time and off-peak hour deliveries, possibly supported by unattended delivery systems;
- planning of loading and unloading areas, lanes and back alleyways, and bays;
- optimal parking configurations;
- demand management around logistics / intermodal hubs;
- demand management of urban goods through traffic (i.e., where goods pass from origin, through a city, to a destination elsewhere);
- signalization to prioritize goods movement;
- HOV, reserved lanes where warranted, delivery lanes, and priorities / segregation for urban goods carriers (possibly sharing with bus lanes);

for highways within regions:
- on-ramp and off ramp planning for greater efficiency (especially around airports)
- hub and spoke configurations to reduce congestion and increase efficiencies

- demand management for passenger vehicles to relieve congestion (including congestion pricing for passenger vehicles as well as tolling);
- restriction of trucking on certain roads during peak periods.

Coordination of Smaller (Capillary) Movements

- better understand the benefits and options related to smaller “invisible” urban goods movements including smaller trucks, cabs, foot and cycling couriers, cargo bicycle and hand cart deliveries, “special purpose vehicles” and goods-related personal automobile trips;
- support / enhance smaller movements that increase efficiency and reduce CO2, in particular human powered deliveries and courier systems (this could be supported by by-laws and financial incentives);
- explore opportunities for integration of smaller vehicles and movements into the fabric of the city with design considerations to accommodate and coordinate this. This is currently an afterthought.
- explore warehousing / distribution centre opportunities for small deliveries;
- link the smaller vehicles and systems with the larger integrated system;
- employ ITS technology and modeling to gather and analyse information and coordinate links with the smaller movements.

Local Production and Distribution to Reduce the Need for Transport of Goods, including:

- incentives for locally produced and distributed goods;
- bulk purchasing opportunities to bring together and support local producers (including Community Shared Agriculture);
- food production in the city, including roof-top gardens and food production buildings as in Holland.
7. FINANCIAL AND ECONOMIC

While there are many benefits to coordinated urban goods movement, R & D costs money, as does the implementation of its results. The barrier to investments in increased urban goods movement efficiency needs to be addressed through a variety of existing and innovative funding and financing mechanisms.

Explore improved and innovative financing and funding mechanisms, including:

- implications and applications of:
  - taxation and alternative tax structures, such as emissions taxes and rebates
  - carbon tax
  - relieving property taxes on goods movement properties
  - user pay / road tolls on new construction

- public-private partnerships;

- public and private funding for R & D and pilots that support integration and GHG reduction related to urban goods movement;

- explore free trade zones to provide employment opportunities and tax advantages to corporations (assuming appropriate social and employment policies).

8. KNOWLEDGE, SKILLS, AND EMPLOYMENT

Support skills development, training, knowledge networks, and labour research related to urban goods movement:

- explore / research skills and knowledge gaps and needs related to urban goods movement;

- support training (both academic and professional) for urban goods movement-related knowledge and skills development using both public and private sector delivery mechanisms. This should include knowledge of whole systems as well as specific skills such as better knowledge of how to more optimally use existing technologies that are already in place.

- explore labour-related issues including job stress, hours of work and work loads, wage and benefits issues (especially for truckers and foot and bike couriers) and labour force transitions related to urban goods movement;

- explore job creation opportunities related to urban goods movement, as well as better marketing and communication around urban goods movement jobs and careers.
9. POLICIES AND LEGISLATION

Throughout the interviews policy and legislation and the ways in which they play out for urban goods movement were cited and are included within other sections of this report, however suggestions were by no means exhaustive. This was expressed as an area in need of further and more focused exploration. A review of current policies and policy players affecting and affected by urban goods movement, as well as enabling policies from elsewhere, would be a useful resource.

Support policies and legislation that encourage coordinated, efficient, sustainable urban goods movement.

R & D related to policies and legislation can support a number of urban goods movement goals, including:

- improving understanding of the many and various policies and legislation related to urban goods movement;
- removing barriers to coordinated, sustainable urban goods movement;
- providing incentives towards coordinated, sustainable urban goods movement (including the relationship with passenger movement);
- harmonizing policies and legislation across levels of government and jurisdictions;
- communicating the importance of urban goods movement and providing a focus for a coordinated urban goods movement framework in Canada;
- illuminating areas for public investment in urban goods movement;
- supporting urban goods movement partnerships including a Canada-wide network, and urban / regional Freight Stakeholder Partnerships.

10. PARTNERSHIPS FOR ACTION

Support development of Freight Stakeholder Councils and a wider Urban Goods Movement Network for Canada.

Appendix 3, prepared by the Canadian Urban Institute, outlines the benefits of regional Freight Stakeholder Partnerships (FSP’s) for identifying and undertaking coordinated R & D and action on urban goods movement within specific regions. It outlines various approaches to FSP’s citing selected examples from Canada and elsewhere.

More broadly, there was great interest regarding the development of a multi-sectoral network of urban goods movement players in Canada. The network would be supported with up to date, relevant information, resources, and events. If done well, it was seen as a mechanism for information sharing, building trust, establishing ongoing buy-in, and collectively establishing a higher profile for sustainable urban goods movement in Canada. It was noted that industry associations can be a good first step for information dissemination that is distilled to specific industry needs.

Building on the evolving urban goods movement network to date, the following activities were considered useful for the network:

- establishment of regular electronic communication with urban goods movement players across Canada to share relevant trends, case study profiles, and reports on urban goods movement;
- organization of a cross-Canada conference on urban goods movement, with the potential for evolution to an annual or bi-annual conference and industry-specific events;
- development of key resources to support urban goods movement players across sectors;
- working groups addressing R & D, and a Canada-wide urban goods movement framework, as well as a number of specific topics.
• links with international agencies and activities related to urban goods movement;

• communication and research links amongst existing Canadian freight stakeholder partnerships and support for the establishment of new freight stakeholder partnerships in regions where they are needed (see Freight Stakeholder Council Summary with case studies, Appendix Three)

When asked which industries / areas to include in this network beyond those currently represented by the interviews and advisors, respondents suggested: chambers of commerce and boards of trade; heritage groups and community preservation groups around ports; Mayors; municipal planners; psychologists & sociologists; and tourism representatives (for both effects on tourism & for industrial tourism opportunities).
CONCLUSIONS

Based on interviews with 40 key urban goods movement players from Canada and elsewhere, this report focused on the emerging importance of Urban Goods Movement to the competitiveness and livability of Canadian city regions. It outlined key barriers to coordinated urban goods movement as well as key drivers for success. General R & D needs were outlined but not prioritized. This could be the focus of future work by evolving urban goods partnerships. Appendix Three, prepared by the Canadian Urban Institute, outlined the benefits of Urban Freight Stakeholder Partnerships in planning for and achieving coordinated, efficient, sustainable urban goods movement, and Appendix Four offered a preliminary list of sources for case studies and reports related to urban goods movement.

Responses to the interview questions were generally enthusiastic and very supportive of better coordination of urban goods movement in Canadian cities. Respondents were very much in favour of increased collaboration both through Urban Freight Stakeholder Partnerships and through the development of a wider network of urban goods movement players across Canada. Overall responses pointed to the need to do work:

- to gather better information on the state of urban goods movement in Canadian cities (we know very little);
- to establish a better profile for the importance of urban goods movement to our economy & quality of life;
- to identify a wider range of Canadian urban goods movement players across sectors and to support their individual and joint efforts related to sustainable, efficient urban goods movement;
- to build on and connect existing Canadian successes in urban goods movement;
- to gain knowledge about, borrow, and adapt and implement successful approaches from around the world;
- to develop policies, legislation, and funding and financing mechanisms (both comprehensive and specific) to support coordinated urban goods movement in Canada;
- to identify and support innovation and export potential for Canadian urban goods movement innovations and successes.

It was generally noted based on experience elsewhere that the federal government could play a strong and positive role in the development of sustainable, efficient urban goods movement in Canada. Suggested roles included but are not limited to:

- communication and partnerships with urban goods movement players across Canada, to support a higher profile for urban goods movement, and to facilitate joint research and action that build on and connect local and international successes;
- development of policies, legislation, and guidelines to support coordinated, efficient, sustainable urban goods movement;
- working with other levels of government to better coordinate policies & legislation related to coordinated, efficient, sustainable urban goods movement;
- facilitation of the development of a common framework for coordinated urban goods movement in Canada;
- funding key urban goods movement research and action and participating in public private partnerships for pilots and ongoing urban goods movement activities;
- providing human resources and expertise to support urban goods movement networks and action;
- supporting and networking Urban Freight stakeholder partnerships.

It was also noted that the federal government could support the development of the Urban Freight Forum, a network of urban goods movement stakeholders across Canada, to foster better coordination of their efforts.
partnerships as well as the development of a broader urban goods movement network across Canada.

Based on interview responses, this report outlines key barriers to coordinated urban goods movement in Canadian cities as well as key drivers for success. General R & D needs are outlined but not weighted or prioritized. This could be the focus of future work by urban goods partnerships. Appendix Three, prepared by the Canadian Urban Institute, outlines the benefits of Urban Freight Stakeholder Partnerships in planning for and achieving coordinated, efficient, sustainable urban goods movement, and Appendix Four offers a preliminary list of sources for case studies and reports related to urban goods movement.
NEXT STEPS

Possible Next Steps Following From This Report

This report was an initial scoping of R&D needs related to urban goods movement. The quality and quantity of response to this exercise is an indication of the increasing importance of urban goods movement in Canada, and of the relevance of addressing it in a coordinated way. Logical next steps following from this initial scoping process may include:

- Distribute this report to interviewees and for comment;
- Distribute this report to a wider network of urban goods movement players for comment, as identified by advisors and interviewees;
- In partnership, establish a multi-stakeholder group to explore urban goods movement issues of Canada-wide relevance, and to support the development and networking of regional Freight Stakeholder Partnerships;
- In partnership, convene a workshop or series of workshops to refine research requirements and to support awareness building and information exchange amongst a growing network of urban goods movement players in Canada.
APPENDIX ONE:

INTERVIEWEES

In general, interviewees welcomed the short telephone interview format. Despite tight timelines including March break, a wide variety of participants made themselves available to contribute thoughtfully and enthusiastically. Interviewees included:

Les Aalders  Air Transport Association of Canada (ATAC)
Glenn Booth  Coca Cola (Canada) Ltd.
Ralph Boyd  Atlantic Provinces Trucking Association (APTA)
Malcolm Cairns  Canadian Pacific Railway
Roger Cameron  Railway Association of Canada (RAC)
Patrick Carson  Rosetta Group
Gordon Cherry  Canadian Manufacturers and Exporters
Victor Deyglio  Canadian Professional Logistics Institute (CPLI)
Rick Donnelly  pbConsult Inc. (USA)
John Ferreira  United Parcel Service Canada Ltd. (UPS)
Richard Gilbert  Centre for Sustainable Transportation (CST)
Lyle Hargrove  Canadian Auto Workers Union (CAW)
Enno Jakobson  Challenger Motor Freight Inc.
William Johnston  Transport Research, Education & Development Services
Michael Kieran  IBI Group
Martin Kobayakawa  Translink (Greater Vancouver Transportation Authority)
David Kriger  iTRANS Consulting Inc.
George Kuhn  Canadian International Freight Forwarders Association (CIFFA)
Stephen Laskowski  Ontario Trucking Association (OTA)
Mike Ludwick  Bison Transport
Robert Matthews  Hamilton Port Authority
Sheryl McLean  Canadian Association of Supply Chain & Logistics Management
Alan McKinnon  Heriot-Watt University, UK
James Nolan  University of Saskatchewan
Anthony Perl  University of Calgary
Alan Pisarski  Chair, TRB Data & Information Systems Section
Kate Rahn  CanCom Tracking
Gerald Rawling  Chicago Area Transportation Study
Colin Rayman  ITS Canada
Guy Raynault  CITM (Comité Interrégional pour le Transport des Marchandises, Montreal)
Philippe Richer  Industry Canada
Wayne Roberts  City of Toronto, Food Policy Council
Filippo Salustri  Ryerson University
Wayne Scott  Toronto Hoof & Cycle Courier Coalition
Wayne Smith  Seaway Marine Transport
Robert Taylor  Railway Association of Canada (RAC)
Fred Ware  Hudson’s Bay Company
Robert Wilds  Greater Vancouver Gateway Council
Peter Woolford  Retail Council of Canada
Clarence Woudsma  University of Calgary
APPENDIX TWO:

INTERVIEW QUESTIONS FOR SUSTAINABLE URBAN GOODS MOVEMENT PROJECT

Question 1:

a) What would you identify as your top 3 R & D needs related to urban goods movement (R & D in the broad sense, meaning not only core technologies but also integrating technologies, commercialization, case studies and best practices, institutional structures, policies and legislation, and more). These needs can be:
- for your industry / area
- to improve efficiency
- for integrating / coordinating urban goods movement
- for reducing CO₂ and for other environmental benefits
- for Canada to benefit in general (economic, social, environmental)
- short-term and long-term

How well are these needs being addressed and how could we be using R & D to address them?

b) Does anything else come to mind, long-term or short-term? The following areas may help guide your thinking.
- Modal linkages / Intermodal
- Information Flow and Data Management
- Systems Management (logistics, freight campuses, life cycle analysis, etc.)
- ITS (Intelligent Transportation Systems)
- Demand Management
- Land use / land use planning / local production and distribution
- Fuel and vehicle efficiency
- Capillary systems (local as well as human powered delivery systems)
- New services and enterprises
- Design (of vehicles and products, as well as urban design)
- Other?

Question 2:

a) What are some of the key barriers to achieving coordinated, efficient, sustainable urban goods movement, particularly related to R & D.

b) Conversely, what are the drivers/solutions that encourage the development and use of best practices and systems and technologies for coordinated, efficient, sustainable urban goods movement

Question 3:

a) Do you know of case studies from Canada and elsewhere in the world that would be relevant to coordinated urban goods movement in Canadian city regions?

b) Do you know of reports from Canada and elsewhere in the world that are relevant to sustainable, efficient, coordinated urban goods movement in Canadian city regions?

Question 4:

a) Would it be of benefit to develop a Canada-wide network of urban goods movement players supported by a listserv that provided regular updates, trends, reports and case studies, and possibly an annual or bi-annual conference?

b) If so, who else should be involved in this urban goods movement network? Who else should be surveyed or interviewed?

Question 5:

Other comments?
APPENDIX THREE:
PREPARED BY THE CANADIAN URBAN INSTITUTE

FREIGHT STAKEHOLDER PARTNERSHIPS

We refer to the concept generically as “Stakeholder Partnerships to Promote More Efficient Urban Goods Movement” or “Freight Stakeholder Partnerships” (FSPs) for short. FSPs are also known as “Freight Councils” in Australia, “Freight Quality Partnerships” in the UK, and “Freight Advisory Committees” in the US.

Rationale for Establishing Freight Stakeholder Partnerships in Large Metropolitan Areas

A key component of a healthy, vibrant economy is the ability to efficiently move goods and freight within a region. However, urban areas have experienced an increase in traffic congestion, ground-level smog and greenhouse gases, and accidents related to goods movement. At the end of the day, impediment to movement increases the cost of delivering goods and places greater strain on the economy of the region.

Congestion costs the industry billions of dollars annually. Therefore, efficient and safe movement of goods is vital to the economic health and competitiveness of urban centres. As several studies have concluded, urban centres need seamless, coordinated transportation networks that support official plan policies aimed at maximizing the use of existing infrastructure and previous investments. Inter-modal and inter-line connections are vital so that each mode and each carrier – whether for passengers or goods – is conveniently integrated with the rest of the urban transportation system.

Definition and Description of the Freight Stakeholder Partnership Concept

Although the nomenclature varies from jurisdiction to jurisdiction, the basic model describes a process that brings together representative players with a stake in the efficient movement of freight in urban areas. These range from transportation carriers to logistics specialists and the operators of major facilities such as airports, marine, and rail terminals to users such as retailers and manufacturers. Public policy makers are also involved, and FSPs typically emphasize direct links to decision makers responsible for infrastructure planning and operations. In Europe, environmental “pressure groups” are also part of the mix.

The purpose of FSPs is to pool knowledge, plan for future data needs, and to develop innovative solutions that enhance operational efficiency and reduce emissions either by reducing congestion or accelerating the rate of acceptance of less polluting modes and technologies. In both the US and Europe, for example, the activities of FSPs are heavily focused on achieving environmental gains. This is in part because government funding of FSPs is tied to meeting environmental objectives but also because many solutions made for “economic” reasons invariably provide environmental enhancements.

The growing acceptance of the FSP concept suggests that the approach saves time, money, and energy on the part of participants and the public sector. The traditional approach is for the public sector to identify a program of action and then to attempt to persuade the private sector to cooperate. By working constructively together from the outset, participants in FSPs tend to focus on projects and initiatives that are not only likely to produce results early on, but which, by definition, are supported by the private sector. Also, by developing solutions in a cooperative environment aiming at improved economic and environmental conditions for a specific city region, strategies and projects tend to have benefits for the system as a whole rather than just for individual modes.

Proof of the growing maturity of the FSP concept and that it is clearly gathering momentum as a vital tool for use in metropolitan areas is that both the US and the UK have prepared “How to” documents, which set out both the methods and resources required to achieve success. Some examples are:

- UK Department for Transport (2003): “A guide on how to set up and run Freight Quality Partnerships”  
What would be required in Canada is to “interpret” the content of these documents for local use and adaptation.

Summary of Benefits to Illustrate Their Effectiveness

FSPs are a significant component in the management of freight movement because they bring private and public stakeholders together providing an independent yet cooperative forum for coordinated strategies geared to the specific region (with ongoing buy-in from members). As well, they help citizens voice their concerns and ideas to their state and federal legislators on transportation related issues. The benefits of establishing a forum involving decision makers as well as public and private stakeholders in transportation matters in Canada are numerous as they can help to:

- Identify and secure data needs;
- Spur immediate actions and provide meaningful input to long-range transportation plans;
- Elevate the importance and improve the integration of freight movement in the planning process;
- Enhance private sector involvement in regional freight transportation planning;
- Provide a single voice for concerned citizens;
- Take advantage of unrealized opportunities for the region (market, waterways, air cargo capability, etc.);
- Develop comprehensive freight corridor projects, which allow the opportunity to improve all major elements of freight movement in urban areas;
- Increase the efficiency and safety of the road and rail freight networks in the movement of goods and services;
- Help develop an advanced and comprehensive system of policies and practices for moving goods that boost the economic competitiveness of the City and the Region.

Reasons for being involved in a Freight Stakeholder Partnership

In our interviews and our research, the following reasons for involvement in a FSP were mentioned:

PRIVATE SECTOR

- Increase participation with regional planning authorities to improve business future;
- General desire to move goods more efficiently;
- Specific concerns such as clearances along routes to terminals, turning radii, cargo access/egress at airports;
- Wish to ensure that potentially rash and unwise policies, such as closing an expressway terminal or facility, can be avoided;
- Preserve the existing competitive balance between private companies;
- Achieve working relationships with the public sector and with other companies in order to learn about the major players in the planning process and the freight community;
- Establish new contacts, to have day-to-day relationships with the public sector and FSP staff;
- Make recommendations in the planning process.

PUBLIC SECTOR

- Opportunity for staff to gain insights or obtain data for planning process;
• Staff learn about the needs of the private sector, increasing the likelihood of success in terms of creating sound public policy;

• Brief the private sector on planning issues and processes, technical activities, and peer experiences.

Success Factors

Our review of FSPs in different jurisdictions suggests a number of “success factors” contributing to both project-specific progress and facilitating the continued success of these groups over the long term:

• “3-C Approach” of the Delaware Valley Goods Movement Task Force:
  - comprehensive – all freight stakeholders participate (carriers, shippers, public sector, etc.)
  - cooperative – the FSP plugs into transportation departments’ freight initiatives
  - continuing – the FSP meets four times a year

• FSP staff need to be able to speak the freight sector’s language and be aggressive at soliciting the members’ input on MPO policy;

• Local planning authority needs to understand the operational and financial issues of the freight industry;

• Give private sector the opportunity to give input and/or provide data;

• Need for a staff freight expert/champion in the regional planning authority to keep the committee active;

• Solid FSP structure that delegates responsibilities;

• Staff needs to accommodate the time constraints of the private sector, keeping the meetings focused, holding meetings regularly, and compiling information, meeting notes, and suggestions for action;

• Meeting times have to be announced well in advance;

• Meetings have to be well structured and concise (action items, problems have to be defined and solved);

• Meetings need to have a friendly and positive atmosphere (food and drink, guest speakers, opportunity for attendants to report and network);

• Outreach activities to improve the public’s negative image of the freight sector;

• Innovative funding, no sticks but carrots;

• Have annual events.

Challenges

Nobody we spoke with suggests that creating and sustaining FSPs is easy. The following issues were identified as key challenges:

• Inconsistent participation in the working groups (In the case of CATS, rapport with the rail carriers is well developed, but less so with the other industry sectors);

• Getting the trucking industry on board;

• Creating a mechanism that ensures objective comparative evaluation of new project proposals and funding distribution;

• Balancing the demand for specific projects with the supply of public agencies’ resources;

• Disagreements over the process used to identify bottlenecks and pinchpoints in the system;

• The public sector is attempting to create a comprehensive picture of the infrastructure before taking any action (i.e. prolonging the process when private sector interests are looking for results);

• Once enough projects have been identified to last the next five to ten years, the public sector should stop soliciting new projects and concentrate on getting funding for the other projects;
• FSP forum may be good for soliciting private sector input, but is not conducive to achieving immediate results because of inconsistent attendance and lengthy planning authority processes;

• Several other places to call on for getting an infrastructure problem completed have been discovered, such as City Halls and special committees (some members would rather choose those avenues over the FSP to obtain quicker results);

• Keeping the freight planning staff committed to the freight sector outreach efforts, despite the problems with attendance and rapport between members;

• Despite FSP’s best and continuing efforts, the intermodal industry needs to mobilize to become major advocates at the policy level;

• As a regional planning authority, the FSP’s influence in improving intermodal freight movement is confined for the most part to coordination, facilitation, education, and advocacy;

• Achieving increased involvement of the public sector.

The most successful FSPs are run by individuals who are able to avoid exercising too many controls and who encourage solutions, regardless of whether they are channeled through the FSP or not.

USA

In the US, intermodal transportation has become a prominent means of transporting goods. The enactment of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 dramatically changed the role of urban freight in the transportation planning process. Consequently, freight transport and freight facility location became factors that required mandatory consideration by Metropolitan Planning Organizations (MPOs) in the development of their long and short-range transportation plans and programs. Since the ISTEA, many FSPs have been established with heavy government funding available.

Intermodal transportation can be defined as a process for transporting freight by means of combining two or more modes of transportation. This system of transporting goods benefits both freight carrier and customer by providing competitive options for the efficient movement of goods. This is important since transportation constitutes the third largest operational expense (after labour and materials). The classic intermodal combination of truck and rail moved over 41 million tons of goods, valued at $83 billion in 1997 (Transportation in the United States: A Review, US Department of Transportation Bureau of Transportation Statistics, 1997).

The most successful freight councils in the US are located in metropolitan freight centers such as Baltimore, Chicago, Columbus, Kansas City, New York, North Jersey, Pittsburgh, and Seattle.

They have all been established after the enactment of ISTEA, which calls upon local governments to improve urban freight movement. Common issues that lead to the creation of FSPs were congestion and transportation policies that impede efficient goods movement such as clearances, etc. In most cases, the MPO has a staff person working for the freight council.

The groups generally meet quarterly and have either one or two chairs, which in most cases were appointed by the MPO. The MPO has been the driving force behind freight councils. Most freight councils have established subcom-
mittees to deal with specific problems more efficiently. Representatives from the private sector might be subcommittee chairs.

The rail industry is generally better represented than the trucking industry as their numbers are fewer and they are more dependent on government funding. It is also harder to get the shippers involved than the carriers.

INTERMODAL ADVISORY TASK FORCE (IATF), Chicago Area Transportation Study (CATS), Chicago, Illinois


The IATF is focusing on freight issues in the Chicago metropolitan area, which encompasses six counties in Northeastern Illinois. The region, being third largest in the country, is home to almost 8.5 million (2000) people and exhibits densely populated and industrial as well as sparsely populated rural areas. Chicago is the hub of the nation’s freight transportation system and constitutes the largest intermodal freight market. Truck travel is expected to increase dramatically.

Increased road congestion in Chicago has led to the public perception that the freight industry is the major culprit. However, trucks are forced to use local streets when accessing many of the intermodal yards as arterial and expressway connections are limited, and vertical and horizontal clearance restrictions are complicating truck routes. Therefore, improving access routes and surrounding streets of the region’s intermodal and container facilities was one of the issues leading to the FSP. With the increase in intermodal transportation, rail-road-rail transfers are among the area’s biggest concerns.

The IATF is working under the auspices of the CATS, the MPO for Chicago and northeastern Illinois. CATS is, among others, responsible for the Long Range Regional Transportation Plan (also the RTP or 2020 Plan) and has maintained a freight component in its regional transportation planning since the 1970s. In the years immediately before and after the ISTEA, Chicago has included freight sector input in its planning process through both formal data collection efforts and industry outreach.

The IATF has three subcommittees:
- Research and Planning
- Finance
- Communications

Several working groups have also formed within the IATF for various purposes. One example has been the Operation Green Light Working Group, which is now called the Improvement Needs Working Group (see below).

The private sector membership mostly consists of carriers since intermodal operations such as rail-to-highway transfers rather than freight logistics are predominant in the region. Shippers are harder to get involved. The freight council is constantly involved in outreach activities to broaden its membership base. The freight council meetings are quarterly at the CATS offices and are usually attended by about 15 people.

IATF’s mission, according to their website, is to:

- Identify, assess, and respond to issues and opportunities affecting intermodal transportation facilities and resources and the intermodal movement of goods;

- Pursue the spirit and the letter of the Intermodal Surface Transportation Efficiency Act (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21), notably in the areas of data acquisition and management; the definition and promotion of freight projects; ensuring a regular intermodal component in the Regional Transportation Plan (RTP); advocating a regular allocation of planning funds from the Unified Work Program (UWP) to freight-related research; managing/orchestrating relations with other freight advocacy groups in the region;

- Offer a regular forum for the exchange of information on intermodal industry business practices and developments and, similarly, information on developments in public sector planning and programming that impact the industry;
• Provide a mechanism for effective participation in the transportation planning process by agencies, businesses, and persons involved in the freight intermodal transportation sector;

• Provide input into the planning and programming process with respect to the intermodal movement of goods.

The IATF has served as the principal medium for freight transportation input to the local MOP. It is one of eleven CATS Task Forces conducting technical work and evaluation, which is used for policy making. The IATF can also sponsor plan amendments.

IATF has been in place for almost ten years.

IATF’s main achievement is the consolidated ongoing dialog with the goods movement industry. One example is the Operation GreenLight (OGL) project, which was initiated in 1989 to reduce vehicle congestion of the region’s existing highway network and to increase capacity. Representatives of each mode of the freight community: trucking, trucking, rail, marine terminals, air terminals and airlines, and professional freight associations were invited to make suggestions on what specific infrastructure projects to pursue and/or what strategies to investigate further. A critical success factor of the project was the recognition of the value of private sector input in order to achieve sound planning policies and the will to incorporate their suggestions into the overall CATS transportation planning process.

The OGL project resulted in the formation of a Freight Advisory Task Force, a precursor to the current IATF. The Task Force generated recommendations under six major categories:

- Operational restrictions/system management measures,
- Vehicle restrictions
- Viaduct clearances
- Strategic and supplemental regional arterial programs,
- Driver information and incident management, and
- Intermodal facilities/industrial areas.

In addition to the regional information collected from the four roundtable meetings, the freight industry was surveyed to determine what specific initiatives could improve goods movement efficiency and reduce congestion. Freight sector representatives submitted proposals in seven categories:

- Signs and signals
- Lane width and turning bays
- Speed limits
- Merges and ramps
- Viaducts and grade crossings
- Access to terminals, and
- Restrictions, rules, regulations, and others.

The surveys produced 266 project proposals, several of which were pursued throughout the early 1990s. One of these was a project to encourage types of employment on Cicero Avenue (Illinois route 50) that reflected the goods movement industry. GreenLight’s principles still play an important role in the evaluation of new projects.

Another success was the Harvey Intermodal Yard. It was created when the Canadian National Railroad (CN) made an agreement with Illinois Central (IC) Railroad to relocate its intermodal facilities from Chicago to Harvey, Illinois, located 20 miles south of Chicago. Illinois Central made $20 million worth of improvements to 67 acres within their existing Moyers Intermodal yard, and leases the facility to CN. Since operations began in 1996, the CN has improved connections to the Port of Vancouver and Halifax, Nova Scotia. The routing of large traffic volumes has raised debate over the need for additional infrastructure investments to the network of intermodal connectors. The IATF and CATS continue to serve as a referral source and point of contact among all parties.

Another successful project is the inventory of the Chicago region’s major intermodal facilities and resources. The Intermodal Inventory includes data on each facility’s operational environment and is stored in GIS format. Continually revised, the inventory is cross-linked with the Proposed Connectors links and serves as CATS primary data source for regional planning. The inventory has helped CATS identify potential improvement projects as well as selection criteria for project
evaluation. The database may also be inputted into any future statewide Intermodal Management System (IMS) that may be created.

The Intermodal Freight Inventory GIS system (IFIGIS) evolved from the Intermodal Inventory effort. Using 1992 Census Data, traditional existing maps (such as the 1971 facility maps) and industry feedback, the IFIGIS includes ten major categories of data (such as Intermodal Facilities, Rail Network, Trucking Terminals, and Operational Constraints).

CATS and the IATF continue to collect data, to look for innovative sources of funding, and to find ways in which the public sector can support and facilitate intermodal projects.

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DELAWARE VALLEY GOODS MOVEMENT TASK FORCE (DVGMTF), Delaware Valley Regional Planning Commission (DVRPC), Philadelphia, Pennsylvania

http://www.dvrpc.org/about/committees/dvgmtf.htm

The DVGMTF covers nine counties in two states, Pennsylvania and New Jersey. The region, with Philadelphia as the largest city, has faced slow growth and fell from being the fourth to sixth largest in the nation (population: 5.4 million 2002). However, its history as one of the country’s largest industrial centres has ensured an extensive rail network and active ports.

The major issues for the region that are tackled by the FSP are international border crossings, access to intermodal facilities, major distribution routes, and formalized coordination with freight shippers and carriers. The DVGMTF is also working under the auspices of the local MPO, the DVRPC, which has appointed its executive director and the Deputy Secretary of the Pennsylvania Department of Transportation as co-chairs of the FSP to demonstrate institutional commitment and to mobilize MPO resources.

The freight council currently has three subcommittees: Data, Planning, and Shippers. In an attempt to increase industry participation, industry representatives are chosen as subcommittee chairs.

The freight council meetings are quarterly and announced well (one year) in advance. They are always at the same time and in the same place. Facilitators and guest speakers ensure the quality of each meeting. Food and drinks are provided, and the meetings will always allow for two-minute reports from the audience and networking opportunities. Attendance has been up to 60 for the last three years.

The DVGMTF was established to maximize the Delaware Valley’s goods movement capability by sharing information and technology between public and private freight interests, promoting the region’s intermodal capabilities and capacity, and developing and implementing a regional goods movement strategy. It advises the DVRPC Board on all goods movement issues, studies, and projects.

The DVGMTF has served the Greater Philadelphia region for over 10 years.

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UK

In 1999, the national government issued an advisory, the Sustainable Distribution Strategy, aiming “to promote a distribution system which promotes the economic growth, whilst minimizing the social and environmental impact of distribution networks” (Department for Transport 2003). In practice, this requires all regional transportation plans to be prepared with input from a FSP. Although there is no funding for the creation of FSPs, the local authority is obliged to help establishing and sustain them because funding for the long range plan, and subsequently individual projects, is contingent on participation from the FSP.

The Government has recognized the benefits of local authorities and industry working together to share responsibility for, and to understand, distribution issues and problems at both regional and local levels. Through such partnerships, opportunities will exist to promote constructive solutions, which reconcile access requirements with local environmental and social concerns.

London is currently working on a FSP initiative within the Thames Gateway London Partnership, which will contribute to the mayor’s transport objectives and is fully consistent with the aims and objectives of the London Sustainable Distribution Partnership (LSDP). A FSP that was established in the same year as the government’s sustainable distribution strategy is described below.

NORTH WEST FREIGHT ADVISORY GROUP (NWFAG)


The North West region has two urban centers, Manchester and Liverpool, and is home to 6.9 million people. The area has one major international airport, three smaller airports, a major international seaport, eight further ports varying in size, an extensive network of expressways, and a rail network that serves the key regional cities and towns.

The economic decline of various industries in the region has forced the remaining sectors to become more efficient. A high quality freight movement system has proven to be vital for economic development in the region. Therefore, a North West Regional Freight Strategy was first on the FSP’s agenda.

The NWFAG was jointly established by the Northwest Development Agency and the Freight Transport Association. The NWFAG’s partners are as follows:

- British Waterways
- Central Railways
- Confederation of British Industry
- Cumbria County Council
- English, Welsh & Scottish Railways Ltd
- Freight Transport Association
- Freightliner Ltd
- Government Transport Office North West
- Highways Agency
- Lancashire County Council
- Littlewoods Retail Ltd
- Liverpool Airport plc
- Liverpool Chamber of Commerce
- Manchester Airport plc
- Manchester Chamber of Commerce
- Manchester Ship Canal Company
- Mersey Docks & Harbour Company
- North West Development Agency
- North West Regional Assembly
- Peel Holdings
- Railtrack North West
- Road Haulage Association
- Strategic Rail Authority
- Vauxhall Motors Ltd
- Wigan Metropolitan Borough Council (representing Association of Greater Manchester Authorities)

The NWFAQ has divided their goals in four areas:

- Management and maintenance of the regional highway network
- Management and operation of the regional rail network
- Airports, ports, and waterways
- Sustainable distribution
The NWFAG has been active for almost five years.

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CANADA

INTER-REGIONAL GOODS TRANSPORTATION COMMITTEE (Comité interrégional pour le transport des marchandises - CITM), Montréal, Québec


The CITM incorporates the Island of Montreal, Laval, Lanaudière, the Laurentians, and Montérégie, a region that includes Quebec’s two largest cities and the Communauté métropolitaine de Montréal (the regional planning and service body for 3.5 million residents). The region is bisected by the St. Lawrence Seaway, one of the world’s most important transportation and industrial corridors, serving 40% of the United States’ manufacturing industry.

The Forum on Goods Transportation, which was attended by more than 200 industry representatives, was one of the factors that led to the establishment of CITM. It was held in June 1998 under the sponsorship of the CRDÎM (Conseil régional de développement de l’île de Montréal) — the regional development council for the Island of Montréal. The Forum provided an opportunity to identify an initial plan of action that was to become the basis for the CITM’s work. In addition to the subjects selected, attendees also expressed the need to pool resources and work together to better identify the industry’s development prospects.

The CITM is made up of industry and government representatives, as well as local administrators and representatives from various backgrounds. It is headed by the regional development councils of the Island of Montréal, Lanaudière, the Laurentians, Laval, and Montérégie.

The Steering Committee is comprised of the Presidents of the five Regional Development Councils and the President of the CITM. It assumes leadership over the operations involved in implementing the strategic action plan. They also approve the operating budget and manage government and public relations.
The partners and contacts include:

- Aéroports de Montréal (ADM)
- Agence métropolitaine de transport - AMT
- Association québécoise du transport et des routes - AQTR
- Board of Trade of Metropolitain Montreal
- Camo-Route inc.
- Canadian National
- Chambre de commerce du Québec
- City of Montréal
- Conseil régional de développement de l’île de Montréal - CRDIM
- Conseil régional de développement de la Montérégie
- Conseil régional de développement des Laurentides
- Conseil régional de développement Lanaudière
- Conseil régional de développement Laval
- CP Rail
- Environment Canada - NPRI
- Ministère des Affaires municipales, du Sport et du Loisir
- Ministère de l’Environnement
- Ministère du Développement économique et régional
- Ministère des Ressources naturelles, de la Faune et des Parcs
- Ministère des Transports du Québec
- Montréal International
- Montreal Metropolitan Community
- Montreal Port Authority
- Quebec Trucking Association - ACQ
- Société de l’assurance automobile du Québec
- Société de promotion de l’industrie ferroviaire
- Transport Canada, Québec region

CITM’s mission is to carry out the 2001-2006 strategic action plan for goods transportation (http://www.citm-transport.org/pdf/Plan_action.pdf). It was adopted by decision-makers in the goods transportation field in November 2000. Convinced that the success of carrying out the strategic plan lay in setting up an implementation and follow-up process, the five regional development councils of Greater Montréal agreed to pursue their involvement. Representatives of the Québec and Federal governments, major carriers, and the socio-economic community also lent their support and agreed to actively take part in implementing the strategic action plan.

The plan is the outcome of steps taken in the fall of 1999 by leaders in the transportation industry and socio-economic circles who pooled their efforts in order to define a vision of the future for an industry that is vital to the economic development of Greater Montréal. It contains 47 recommendations and identifies seven major projects to ensure the development of the transportation industry. The recommendations come under the responsibility of some twenty leading organizations, mostly representatives of the transportation industry and governments.

The strategy, according to the CITM, aims to achieve nine goals:

- Promote and develop the goods transportation industry in Greater Montréal;
- Position the Greater Montréal region as a hub for goods transportation, continent-wide;
- Ensure the joint efforts of stakeholders in the transportation field;
- Ensure planning of the general activities of the strategic action plan;
- Ensure follow-up of recommendations among the organizations identified as leaders;
- Ensure the maintenance of ongoing relations between members;
- Support the members through additional strategic actions;
- Act as spokesperson for the goods transportation community;
- Ensure monitoring of the overall operation.

The CITM is entering its fifth year of operation.
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GREATER VANCOUVER GATEWAY COUNCIL
(GVGC), Vancouver, British Columbia

http://www.gvgc.ca/home.html,
http://www.boardoftrade.com/events/presentations/Wilds-
revised17sep03.pdf

The GVGC serves the fast growing Greater Vancouver
Region, whose more than two million population is
expected to grow to 2.7 million by 2021. It is working to
maintain the Vancouver region as a major gateway to
North American, and has been active in planning for the
annual movement of 100 million tonnes of cargo, 15
million air passengers, and 1 million cruise ship passen-
gers.

The Greater Vancouver transportation industry has expe-
rienced a successful period during the past few years in
an otherwise weak regional economy. New jobs were
created and significant investments in seaport, airport,
and rail infrastructure made. However, according to the
GVGC, real and pressing challenges must be addressed if
this momentum is to be maintained:

- Transportation congestion – identified by local citi-
zens as the most pressing issue in the region;
- Aggressive US investment – the US government has
invested over US$218 billion in federal grants to
improve their transportation system;
- Growing US competition – Canadian shippers are
using more US routings for their goods. In fact, one
major Canadian potash shipper, Canpotex, has built a
terminal in Portland.

The GVGC, which was formed by the Vancouver Board of
Trade, has an executive committee, comprising its elected
officers and secretary. It handles the GVGC’s affairs
between Board meetings; at which policies are set and
new programs launched. The committee is supported by
a secretariat, which acts as a coordinating and support
body for its activities and ensures policies are imple-
mented. The action program is carried out by CEOs and
senior executives on the GVGC’s Board, drawing on
senior managers and employees from member organiza-
tions, and outside expertise.

The GVGC’s priorities are set by its Board of Directors,
objectives are defined and action teams established.
GVGC’s membership is made up of senior executives from
the seaports, airport, carriers, and other companies
engaged directly in the Gateway transportation business.
The GVGC also has a number of resource members from
two levels of government and local business associa-
tions who provide essential advice and assistance for
many of GVGC’s initiatives.

GVGC’s vision is to make Greater Vancouver a world
transportation gateway, the “Gateway of Choice” for
North America, able to meet global challenges and capi-
talize on opportunities for growth from expanding world
trade and tourism. Its mission is to ensure that the
Gateway efficiently provides the highest level of customer
satisfaction for shippers, carriers, and passengers. The
international competitiveness of the Gateway transporta-
tion industry is their number one priority and to focus
sharply on bottom line issues of direct relevance to its
membership.

In 1998, the GVGC, concerned about the future, estab-
lished a Working Group of representatives from all modes
of transportation and different sectors of the economy to
articulate a vision for the future and specify an action
plan to realize it. This plan focuses on three broad
strategic areas:

- A fair competitive framework with competing US
gateways;
- Infrastructure and facilities investments, and better
use of existing infrastructure;
- Service expansion and improvements.
It concludes that the Gateway can play an even greater role in stimulating and supporting the economy if a number of initiatives are undertaken. This will require numerous changes in government policy to improve the system and also becoming more competitive with the US. Otherwise, traffic could be lost, and this would undermine not only this region, but the entire country’s economy.

An action program was launched to address these issues in the Spring of 2000. The program comprises:

- Advocacy programs to improve the Gateway’s competitive position with the US in fuel and property taxes, investment charges, and capital cost allowance rules;

- Development of a major commercial network concept for regional roads and rail lines. Just as current planning in the region seeks to move people efficiently among population centres, a Major Commercial Network seeks to move commercial goods efficiently between commercial centres. By engaging all key stakeholders in the concept’s development, it is envisioned that the major commercial network would become a blueprint for infrastructure and economic developments for commercial transportation through the Gateway;

- Ways and means to expand and improve services include initiatives such as Foreign Trade Zones, changes in international air cargo policies, air and cruise ship industry forums;

- Projects to increase awareness of the Gateway and build support for the Council’s projects through public information, a Gateway web site, speakers bureau, and coordination of members’ public events.

The GVGC has been active for more than ten years.

One measure of the GVGC’s effectiveness, according to the GVGC, is that elected officials and departments of governments routinely consult its members on issues affecting transportation in Canada, British Columbia, and the local area. Another measure of success is the Council’s record. Highlights include:

- Improved coordination of rail and marine cargo moves at the rail bridges;

- A comprehensive set of recommendations for Canada’s Marine Policy, which helped the establishment of independent port authorities;

- Air Access Forums, which have initiated actions to make significant improvements in passenger and cargo handling at the airport;

- Recommendations for the formation of the new regional transportation authority, TransLink, which have placed commercial transportation firmly on the regional agenda;

- Definition of the economic impact of the Gateway transportation industry on the region in terms of job generation, tax revenues and economic activity;

- Recommendations for reductions in railway fuel and property taxation to provide a more level playing field with US carriers, which has helped spur reductions in taxes in the three Western Provinces.

Honorary Chair: Hon. Tony Valeri, Minister of Transport, Government of Canada
Chair Gateway Council: Captain Gordon Houston, President & CEO, Vancouver Port Authority
Vice Chair Gateway Council: Mr. Brad Eshleman, President, BC Wharf Operators Association

Vancouver has recently received federal funding for their “Goods Movement Efficiency” project proposal. It aims at developing new models and policies to make freight activity more efficient and identifies a range of initiatives to reduce greenhouse gas emissions from freight, such as new technologies, infrastructure, logistical measures, incentives, and road priority measures.

The showcase includes:

- surveys and interviews with stakeholders;

- refinement of a trucking model from the 1999 Lower Mainland Truck Freight Study;
• research into best practices;

• testing the effectiveness of alternative “bundles” of policy tools.

CENTRAL ONTARIO FREIGHT ADVISORY FORUM (COFAF)

Following are the COFAF Terms of Reference and a member list.

Introduction

The Ministry of Transportation (MTO), through work on Strategic Transportation Directions for Ontario and support to the Central Ontario Smart Growth Panel, has identified a need for a multi-modal vision and strategy for goods and services movement in Central Ontario particularly in light of congestion issues. The goals of the vision and strategy are to:

• identify short and long term policies and strategies that improve goods movement in Ontario and reduce gridlock in the GTA;

• assess the needs of freight / trade / economic development interests in the policy, planning and operations process;

• improve dialogue among stakeholders;

• provide direction for infrastructure decisions, policy and zoning determinations, development planning and design.

The underlying objectives of developing a vision and strategy are to increase the efficiency of goods movement within Central Ontario and to sustain and enhance the competitiveness of Ontario industry. Meeting these objectives should be consistent with other national and provincial social and economic development objectives including safety and environmental goals and policies.

At present, there are a number of challenges to realize that vision.

An efficient freight transportation network will improve environmental quality, boost trade and attract private capital. However, the pace of economic growth and a variety of constraints on expanding infrastructure capacity including financial, land use, environmental impacts requires improved coordination, consultation and communication among system participants to improve the movement of goods in central Ontario.

An effective mechanism to coordinate, consult and communicate results would improve system coordination and the flow of information. Public and private investment, factory location and infrastructure decisions along with government policy and planning initiatives could be made in a more coordinated manner.

To improve the movement of goods, The Ministry of Transportation has decided to establish a Freight Forum.

Experience in Other Places

Freight forums (or advisory councils, consultative committees, planning councils, commissions, agencies, etc.) exist in a number of industrialized countries.

Some are “official” bodies established in legislation and led by governments. Others are public or private and led by the public or private sector.

They have varying degrees of influence on the outcome of private and public transportation planning initiatives from direct input to budgeting processes to moral suasion and educational efforts.

Several factors appear to directly affect the success (however defined) of the forums:

• an active and diverse membership of business, labour and government leaders;

• support from a focused professional secretariat;

• a view that issues are best resolved through a non-confrontational, non-adversarial approach;

• a process guided by the principles of integrity, accuracy, relevance, responsiveness and objectivity.
There is also a strong correlation between successful freight forums and forums that:

1) address specific issues and problems, and
2) provide meaningful input to an existing process that has some legitimate purpose.

**Freight Forum Objectives**
A freight Forum would have three overall objectives:

- To Assist in promoting efficiency and competitiveness of central Ontario;
- A place where all freight stakeholders can provide input to transportation planning and policy development;
- A means to facilitate interaction between various stakeholders in solving mutual problems.

**Outcomes**
A Freight Forum can be expected to provide the following actions:

- Contribute to the results and strategic directions that flow from the Goods Movement Strategy studies;
- Provide input to specific issues identified by MTO or Forum members;
- Create a round-table for sharing information and discussing issues;
- Present advice and recommendations to MTO Executive Committee.

**Schedule**
The inaugural meeting was held June 19, 2003 and focused on the current situation, issues and solutions flowing from Goods Movement Strategy and Freight Land Use Planning studies. A second meeting took place February 13, 2004 to follow up on issues, resolutions, further steps and future direction of Forum. Future half-day meetings could be twice annually, or as required.

**Roles and Responsibilities**

**MINISTRY OF TRANSPORTATION**
- Freight Office: Secretariat, organize, vet presentations, etc.
- Urban Planning: Provide regional urban and transportation planning context and perspective, as needed. They will also provide appropriate linkages to Smart Growth agenda.
- ADM (PPS) or Director, TP: Chair meetings
- MTO Executive Committee.

**FORUM MEMBERS**
- Provide input and analysis, identify issues/topics for future forums.
- Freight Forum Member List:

**SHIPPERS**
Canadian Industrial Transportation Association
Business & Economics, Canadian Chemical Producers Association
Canadian Manufacturers & Exporters
General Motors Canada
Dofasco
Imperial Oil
Algoma Central Corporation
Canadian Tire Corporation
Coca-Cola Bottling Company Ltd.

**TRUCKING**
Purolator Courier Ltd.
Ontario Trucking Association
Private Motor Truck Council
Challenger Motor Freight Inc.

**RAILWAYS**
Canadian Pacific Railway
Canadian National Railway

**MARINE**
Chamber of Maritime Commerce

**AIR**
Cargo, Greater Toronto Airport Authority
MUNICIPAL
Region of Peel
City of Mississauga
York Region

FEDERAL & PROVINCIAL GOVERNMENT
Ministry of Transportation
Freight Policy Office, Ministry of transportation
Smart Growth Secretariat, Ministry of Municipal Affairs
Ministry of Economic Development & Trade
Transport Canada

OTHER INTERESTED PARTIES
Toronto Board of Trade
Moving the Economy, City of Toronto

GOODS MOVEMENT STUDY, Region of Peel

http://www.region.peel.on.ca/planning/transportation/goods_mvmnt.htm

The Region of Peel, in cooperation with area municipalities, is currently undertaking a goods movement study to develop goods movement policies that will be included in their Regional Official Plan Strategic Update. According to the Region of Peel’s planning department, the goals are as follows:

• Provide an overview of the nature of goods movement, existing major freight flows and related issues in Peel Region today, and anticipated future directions and challenges;

• Develop goods movement policy options that address current issues and future challenges, while recognizing the critical role of goods movement to Peel’s economic health.

SUMMARY

In the US, the number of FSPs is growing since the enactment of ISTE A and becoming the norm for metropolitan regions and even smaller jurisdictions (Syracuse, Albany, etc.). FSPs there can rely on heavy funding both for the management of the FSP and for its specific projects. Since there are institutionalized mechanisms for FSPs, there is an incentive for players to leverage relatively small amounts of money to work together to make the projects happen. The federal government provides incentives for establishing FSPs but leaves the various groups freedom to operate and to define their own agendas. In the UK, the government is forcing transportation planning departments to establish FSPs in order to get approval for transportation plans. However, no federal funding is provided. In both countries, FSPs have national communication forums such as the “Talking Freight” Series in the US (http://www.fhwa.dot.gov/freightplanning/talking.htm).

In contrast, in Canada, intra-urban goods movement is not on the agenda in most places where there is regional planning. Montreal, Vancouver, and the Region of Peel are the exceptions, with the GTA starting to build momentum. There are no funding opportunities available and no mechanisms in place for regions to access project money, and obviously no money to facilitate a FSP type of process.
Appendix Four:

SUPPORTING RESOURCES

International Business & Professional Associations

- American Association of State Highway and Transportation Officials
  http://www.transportation.org/aashto/home.nsf/FrontPage
  - AASHTO is a nonprofit, nonpartisan association representing highway and transportation departments in the 50 states, the District of Columbia and Puerto Rico. It represents all five transportation modes: air, highways, public transportation, rail and water. Its primary goal is to foster the development, operation and maintenance of an integrated national transportation system.

- Business for Social Responsibility (BSR - California)
  http://www.bsr.org/
  - BSR is a global organization that helps member companies achieve success in ways that respect ethical values, people, communities and the environment. BSR provides information, tools, training and advisory services to make corporate social responsibility an integral part of business operations and strategies.

- National Retail Federation (US)
  http://www.nrf.com
  - The National Retail Federation is the world’s largest retail trade association, with membership that comprises all retail formats and channels of distribution including department, specialty, discount, catalog, Internet and independent stores as well as the industry’s key trading partners of retail goods and services.

- National Transportation Exchange
  http://www.nte.net
  - NTE began in 1995 as the first transportation exchange, transportation-dependent companies regularly transact using NTE-developed applications pertaining to enhanced shipment and order visibility, automated tendering, and better transportation planning and execution. The result for shippers and their supply chain partners is reduced costs, improved service, happier customers and better decision-making capabilities – without adding risk or expense.

- World Business Council for Sustainable Development (WBCSD) http://www.wbcsd.ch
  - The WBCSD is a coalition of 170 international companies united by a shared commitment to sustainable development via the three pillars of economic growth, ecological balance and social progress.

International Freight Organizations (also see Appendix Three for Canadian Examples)

- Best Urban Freight Solutions
  www.Bestufs.net
  - STUFS is establishing and maintaining an open European network between urban freight transport experts, user groups/associations, ongoing projects, interested cities, the relevant European Commission Directorates and representatives of national, regional and local transport administrations in order to identify, describe and disseminate best practices, success criteria and bottlenecks with respect to the movement of goods in urban areas. The site includes an array of international freight links and other information.

- Freight Quality Partnerships (FQP)
  www.rmd.dft.gov.uk/project.asp?intprojectid=10987
  - Spearheaded by the British Department of Transport, FQP’s objective is to encourage and facilitate various stakeholders to develop, implement and manage Freight Quality Partnerships.
Working together, the aim is to promote a distribution system which promotes the economic growth, whilst minimising the social and environmental impact of distribution networks. UK transport plans are required to have an FQP or must be in the process of creating one. If they do not, certain projects won’t get approved.

International Research Organizations, Departments, Commissions & Freight Websites

- Logistics Research Centre
  http://www.sml.hw.ac.uk/logistics
  - The Logistics Research Centre (LRC), based in the School of Management and Languages at Heriot-Watt University, is one of the main centres in the UK for research on freight transport and logistics. A list of projects undertaken since 1995 can be found at http://www.sml.hw.ac.uk/logistics/LRCprojects.pdf

- Transportation Research Board
  http://www.trb.org/
  - The mission of the Transportation Research Board – one of six major divisions of the National Research Council – is to promote innovation and progress in transportation through research. In an objective and interdisciplinary setting, the Board facilitates the sharing of information on transportation practice and policy by researchers and practitioners; stimulates research and offers research management services that promote technical excellence; provides expert advice on transportation policy and programs; and disseminates research results broadly and encourages their implementation.

- Asia Pacific Economic Cooperation (APEC)
  www.apec.org
  - APEC is the premier forum for facilitating economic growth, cooperation, trade and investment in the Asia-Pacific region. APEC’s website has many freight-related reviews in their project database at http://www.apec.org/apec/projects.html

- OECD/European Conference of Ministers of Transport
  http://www1.oecd.org/cem/online
  - OECD provides a plethora of publications and documents relating to freight topics at http://www1.oecd.org/cem/topics/index.htm

- UK Department of Transport (DfT) - Freight Logistics
  http://www.dft.gov.uk/stellent/groups/dft_freight/documents/sectionhomepage/dft_freight_page.hcsp
  - The UK DfT helps the freight logistics industry to be efficient, resilient, environmentally friendly and safe. Their website contains information on road freight; steps to encourage a shift from road to inland waterway, short sea shipping and rail. They also cover regulation, research and Government initiatives and the resilience of supply chains. (Also see Freight Quality Partnerships)

- UK Transport Energy
  http://www.transportenergy.org.uk
  - Through a comprehensive range of programs, the UK’s Transport Energy is actively working to reduce carbon dioxide emissions from road transport as well as contributing to improved air quality in our cities and towns. Also see Case Studies (section 8 below) for specific freight case studies or visit http://www.transportenergy.org.uk/tools/publications/index.cfm?mode=view&category_id=68

US Government / FHWA

- Office of Freight Management and Operations
  http://www.ops.fhwa.dot.gov/freight
  - Established in 1999, the Office of Freight Management and Operations is part of the Federal Highway Administration’s (FHWA) Office of Operations. The Office of Freight Management and Integration Technologies for Sustainable Urban Goods Movement
Operations promotes efficient, seamless, and secure freight flows on the U.S. transportation system and across borders. Individuals can select a state and get a 5 or 10 page summary of freight statistics at http://www.ops.fhwa.dot.gov/freight/freight_analysis/state_info/index.htm. Other data sources can be found at http://www.ops.fhwa.dot.gov/freight/freight_analysis/data_sources.htm. Note: the site is not user-friendly and information is almost nonexistent at an urban level.

• Department of Transportation - Bureau of Transportation Statistics
  
  - DOT publishes up-to-date multi-modal information including freight at http://www.transtats.bts.gov/Databases.asp?Subject_ID=2&Subject_Desc=Freight%20%26%20Transport&Model_ID2=0. Publications are available free of charge on request.

• US SMARTWAY
  http://www.epa.gov/otaq/smartway/
  
  - The SmartWay Transport Partnership is a collaborative voluntary program between the US Environmental Protection Agency and the freight industry which seeks to increase the American energy efficiency and energy security while significantly reducing air pollution and greenhouse gases.

• US Talking Freight
  http://talkingfreight.webex.com
  
  - The US Federal Highway Administration’s Office of Freight Management and Operations and Office of Planning hosts “Talking Freight” seminars via the telephone and Internet. The seminars are part of a broader Freight Professional Development Program initiative aimed at providing technical assistance, training, tools, and information to help the freight and planning workforce meet the transportation challenges of tomorrow.

Various Studies, Projects & Surveys

• Environmental Awareness and Outreach Measures to Reduce GHG Emissions From the Trucking Sector

• Assessment of Freight Forecasts and Greenhouse Gas Emissions

• Trucking in a borderless market: A profile of the Canadian trucking industry, 1988 to 1994

• UK Guide to Creating and Operating Freight Quality Partnerships

• Profile of Trucking in Canada

Hard Copy & On-Line Articles, Books, Journals & Other Publications

• Car Lines
  http://www.walshcarlines.com

  
  - Specialized newspaper for international transport, forwarding and logistics

  
  - Investigates the approximately 20% of urban car
trips that are derived from food distribution and purchases.

  http://www.urbansource.org/index.php?id=353

- OECD Truck and Rail Transportation Publications
  http://www.oecdwash.org/PUBS/BOOKS/RP022/rp022.htm

- Taniguchi, Eiichi (2003), *City Logistics: Network Modelling and ITS*

- Traffic World: The Logistics News Weekly
  http://www.trafficworld.com/index.asp

  - Established in 1907, the weekly Traffic World covers the transportation community’s weekly source of industry news since 1907. While it has changed dramatically in recent years, in line with changes in regulation and in the businesses it covers, Traffic World remains the only paid-subscription magazine in the transportation and logistics field. And it’s the only weekly that covers the gamut of freight transportation and logistics news.

- Toronto Star - *Seniors’ shopping list: 1. A nearby market…*
  http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_Type1&call_pageid=971358637177&ct=Article&cid=1080688212902

- Transportation Research Board (2002), *Freight Capacity for the 21st Century*

  http://www.transportenergy.org.uk/tools/publications/comingsoon

  - This guide shows, through practical advice and examples, how good planning can help support and encourage the use of inland waterways for freight transport. (Other UK freight oriented publications can be found at http://www.transportenergy.org.uk/tools/publications/index.cfm?mode=view&category_id=68 and http://www.dft.gov.uk/stellent/groups/dft_freight/documents/sectionhomepage/dft_freight_page.hcsp)

**Reports & Policy Documents**

- Air Transport Association of Canada (1999), *Climate Change Air Sub-Group Report* (available from ATAC at http://www.atac.ca/)


- Greater Vancouver Transportation Authority 2005-2007 *Three-Year Plan and Ten-Year Outlook* (Strategic Transportation Plan Amendment)
  http://www.translink.bc.ca/files/3yr_plan_10yr_outlook.pdf

- Industry Canada (May 2004), *Canadian Supply Chain Efficiency Smart Border Study*

  - National survey with industry on impact of smart borders, cost involvement, time wait in line, level of certification, benefits of the programs, other barriers. Approximately 400 companies responding to the survey.

- Railway Association of Canada Publications

- Retail Council of Canada (RCC), *Retail Supply Chain Industry Report*

  - Submission to Industry Canada, available through RCC at http://www.retailcouncil.org


  - Commissioned by St. Lawrence Economic

  - This publication presents a comprehensive overview of the Canadian trucking industry, both for-hire and private (own account). Principal information includes statistics on revenues and expenses, equipment operated, investment, employment, and commodities transported from point of origin to point of destination. Also included are special studies, a glossary and an explanation of data quality measures and methodology.

- Transport Canada’s *Sustainable Development Strategy* http://www.tc.gc.ca/mediaroom/backgrounders/b03-MM003e.htm


**OnLine Case Studies**

- Chicago Area Transportation Study (CATS) http://www.catsmpo.com/
  - Amongst other transportation initiatives, CATS promotes freight issues in the Chicago region and nationwide, and seeks to educate the general public about the role freight traffic plays in the Chicago region.

  - This study aims at understanding different e-grocery logistics system implementation alternatives. The main objective is to study how best to implement an e-grocery business from the logistical point of view so as to ensure profitability. The second objective is to identify, model, and evaluate different logistical solutions that can be used in e-grocery retailing. Solutions for achieving greater picking efficiency are presented and modelled.

- International Mobility and Trade Corridor Project (IMTC) http://www.wcog.org/imtc/imtcbriefing.html
  - IMTC is a binational partnership involving public and private sector interests in the US and Canada. The project has specific relevance to Greater Vancouver due to its proximity to 4 border crossings right in Vancouver and need for accelerating border efficiency. Very relevant for border cities.

- UK Transport Energy http://www.transportenergy.org.uk
  - Through a comprehensive range of programs, the UK’s TransportEnergy is actively working to reduce carbon dioxide emissions from road transport as well as contributing to improved air quality in cities and towns. Studies include:
    - Other general UK freight case studies can be accessed at http://www.transportenergy.org.uk/tools/publications/index.cfm?mode=view&category_id=68