ATLANTIC PROVINCES TRANSPORTATION FORUM 2015

TRANSPORTATION FOR LIFE, WORK AND PLAY:
THE MOVEMENT OF PEOPLE TO, FROM AND WITHIN ATLANTIC CANADA

FINAL REPORT

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DR. LESLIE HARRIS

October 24, 1929 – August 26, 2008

When the Public Policy Research Centre and the Centre of Regional Development Studies were to be merged in 2004, the idea to name the new centre after Dr. Leslie Harris seemed perfect. Dr. Harris' career and values embodied the contribution that the new centre was intended to make to Newfoundland and Labrador.

Leslie Harris was born in rural Newfoundland, the son of a fisherman, and he never lost his connection to the way of life of the province. He was an avid salmon fisherman and dedicated berry picker. When his health prevented him traveling too far from St. John's, it was his trips to Fogo Island that he said he missed the most. His wife Mary was from Fogo, and they enjoyed many years visiting their summer home there, out on the berry grounds and enjoying, according to Dr. Harris, the best salt fish that could be found anywhere. Dr. Harris' love for and knowledge of the fishery and rural Newfoundland and Labrador were eloquently captured in his many inspirational talks and speeches over the years.

When he returned to Newfoundland with his University of London PhD, he helped design a new history program at Memorial that introduced students to history as a discipline. As he taught it, history was not about remembering names and dates, but it was about interpreting the past, understanding differing perspectives, and reaching your own conclusions.

This intellectual discipline was reflected in Dr. Harris' work as an administrator and as a leader in the province's public policy community. Whether it was as a labour arbitrator, the leader of an historic task force on the fishery, or the head of the Royal Newfoundland and Labrador Constabulary Police Complaints Commission, Leslie Harris was trusted to assess the merits of all arguments and evidence and reach fair and practical conclusions. He brought the same wisdom to his years as a senior administrator, vice-president (academic) and president at Memorial University. Through all his life and career, Leslie Harris personified integrity as an individual and engendered respect for the independence of the university as an institution. These values of integrity and independence have become the guiding principles of the Harris Centre.

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- 7. Jennifer McVeigh, Secretary
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- 9. Note-takers: Amy Jones (Knowledge Mobilization Coordinator), Adam Saunders (Business Con-sultant) and Joshua Barrett (Political Science Intern)
- 10. And the many others who have contributed to making this event happen.

I wish to thank Dr. Eric Hildebrand at the University of New Brunswick for managing the Atlantic Provinces Transportation Fund for the past several years, which provided funding for this initiative. The Fund has traditionally provided financing to the University of New Brunswick,

Dalhousie University and Memorial University of Newfoundland to offer a forum, which rotated annually among the three universities; the forum held at Memorial in 2015 was the last such event to be funded, as the Fund has now been wound down.

I wish to thank our keynote speakers, panelists and facilitators, who provided their expertise in guiding the discussions at the forum; they are all identified in detail elsewhere in this report. And finally, I wish to thank all the participants who gave of their time, their knowledge, their expertise and their passion to create a better transportation system for Atlantic Canada; their names are listed in Appendix 1.

Mike Clair, Harris Centre, Conference Chair



2 BACKGROUND TO THE REPORT

On May 19th and 20th, 2015, the Leslie Harris Centre of Regional Policy and Development brought together about sixty stakeholders, content experts, policy advisors, decision makers, opinion leaders and interested citizens from the four Atlantic Provinces to discuss the movement of people to, from and within Atlantic Canada. The event was held at the Holiday Inn in St. John's, NL. The program for the forum (in the form of a "schedule-at-a-glance") is shown in Appendix 2.

The Harris Centre is a unit of Memorial University of Newfoundland, that has, as one of its mandates, the convening of forums in order to discuss important issues of public policy. This was the third forum organized by the Harris Centre since its inception on the topic of transportation, with previous events being held in 2005 in Labrador City ("Northern Gateway") and 2007 in St. John's ("Atlantic Gateway").

The objective of the Atlantic Provinces Transportation Forum 2015 was to look at the movement of people from a holistic perspective, to come up with innovative solutions to current problems and to make recommendations for improving the region's transportation system. The program committee for the forum identified four themes:

(1) Atlantic Canada in the global economy, (2) the social and equity aspects of transportation, (3) the

economic and policy aspects of transportation, and (4) innovations in transportation.

Theme 2 (the social and equity aspects of transportation) was held during the first evening of the forum and was promoted as a public event; the session drew 60 people in the room, with another 30 watching the webcast. The video of the webcast has been archived on the Harris Centre's website.¹

The forum participants generated 66 different recommendations, many of which were complementary to or duplicates of others. As such, they have been consolidated in this final report into a dozen key recommendations.

http://www.mun.ca/harriscentre/policy/memorialpresents/2015d/index.php

It is not surprising that most of the recommendations relate to Newfoundland and Labrador, given the location of the forum and the predominance of participants from this province. And it is not surprising either that most of the recommendations relate to the Northeast Avalon, given that nearly 50% of the population of the province resides in or near that region.

Most recommendations are about the movement of people but, where appropriate, some recommendations also deal the movement of freight (e.g., where a carrier moves both people and freight).

The Harris Centre will submit these recommendations to all four provincial governments in Atlantic Canada, to the appropriate departments of the Government of Canada (such as ACOA and Transport Canada), and to chambers of commerce, advocacy groups, think tanks, etc., throughout the Atlantic Region, in the hope that they will feed the ongoing debate and policy process related to transportation.

The Harris Centre invites any interested parties to forward this

report to anyone whom they feel would benefit from it, and invites any comments that anyone may have about it.

The biographies of all the speakers are included in Appendix 3 and all of the presentations by the keynote speakers and the panelists are available on the Harris Centre's website at http://www.mun.ca/harriscentre/aptf2015/. Presentations.php. Additional information about the forum can be found on the Harris Centre's website at http://www.mun.ca/harriscentre/aptf2015/.



3 ORGANIZATION OF THE FORUM

This report arises from a forum in which 60 participants engaged actively in finding solutions to the challenges and opportunities in transportation in the Atlantic Region. The report is therefore structured along the lines of the forum's program. As such, it might be useful to quickly review the program to gain a sense of what information was transmitted during the presentations and how the recommendations were generated. The "schedule-at-a-glance" in Appendix 2 might be a useful reference to this section.

As mentioned in the previous section, the forum was divided into four themes. Three of the four themes were organized as follows:

- 1. A keynote presentation by a recognized expert in the field, to provide a focus on the theme. Each keynote presentation was about 30-40 minutes long, and was followed by a Q&A with the audience.
- 2. A panel discussion featuring knowledgeable people from Atlantic Canada, who focused on the region. Each of three panelists spoke for about 10 minutes, and their presentations were followed by a Q&A session with the audience.
- 3. These presentations were then followed by 90-minute breakout discussions. The break-out groups consisted of the 6-8 people who sat at each table. Each table

was provided with a facilitator and a note-taker, and a rapporteur was elected from the group.

- 4. A series of questions was drafted to guide the discussions for each theme. It was not intended that groups address all, or even any, of the questions; there might be other issues of interest not included in the guiding questions.
- 5. Groups were asked to frame their discussions in the form of recommendations, which should address a strategic, or at the very least a tactical, issue.
- 6. At the end of the break-out period, each table rapporteur provided a short (3-minute) summary of the recommendations being ad

vanced at their table.

Because Theme 2 (the social and equity aspects of transportation) was a public event and organized differently from the other three themes, no time was provided for break-out group discussions. However, the questions on this theme were interspersed with those of the other three themes.

Finally, given the significant role of provincial governments in transportation, the forum was pleased to welcome the Minister of Transportation and Works for the Government of Newfoundland and Labrador, the Honourable David Brazil. The Minister outlined some of the policies and initiatives that the Government has undertaken in recent years in support of the province's transportation network. His presentation can be found here.

As mentioned earlier, this process generated 66 different recommendations, which were subsequently consolidated into a dozen key recommendations.



4 BACKGROUND TO THE FORUM

In Atlantic Canada, people spend an increasing amount of time, energy and money in getting from one place to another:

- Because of urban sprawl and traffic congestion, commuters living in and around cities spend more time going to and from work.
- Because of the centralization of public services in urban areas, rural residents are travelling further for jobs, health care, post-secondary education, shopping, recreation or other activities.
- Because of long-distance labour mobility and globalization, people are now commuting greater distances to go to work, often hopping across continents or oceans.

• And tourists are coming from ever more distant lands to visit Atlantic Canada, moving between urban and rural areas.

Transportation has assumed a greater role in our lives than ever before, but has generally done so in an unconscious, unplanned and unanticipated way. Our current system is therefore a combination of obsolete legacies, unstated assumptions, unconscious subsidies, incoherent incentives and institutionalized inequities. Over time, our current transportation system has developed structural inefficiencies that now threaten the health of Atlantic Canada's economy and the well-being of its citizens. Were we to invent a transportation system from scratch to meet our needs, we would not create the system we have today.

What should an ideal transportation system look like? How would it get people to and from work, chores and leisure? How would it connect urban, suburban and rural areas? How would it seamlessly integrate long-distance with short-distance travel? How would it help to reduce social inequity by making travel available, affordable and convenient over any distance travelled? What role would it play in urban design and housing affordability? And in fighting climate change? How would it address specific local conditions, such as climate, terrain and population density? To what extent would it be motorized and to what extent would it depend on human power? How will coming innovations, such as electric vehicles, driverless cars, intelligent transportation systems, videoconferencing, employment trends, etc., impact our transportation system? And how can all levels of government, along with business and civil society, work together to provide services that are best suited to the region?

These are some of the questions that the forum attempted to answer. The forum looked at the movement of people from a number of perspectives, including governance, economics, quality of life, environment, health and well-being, technology, infrastructure, and social equity.

The forum looked at the movement of people in Atlantic Canada under four specific themes:

- 1. Atlantic Canada in the Global Economy
- 2. Social and Equity Aspects of Transportation
- 3. Economic and Policy Aspects of Transportation
- 4. Innovations in Transportation

These four themes are explored in more detail in the following chapters



5 THEME 1:

ATLANTIC CANADA IN THE GLOBAL ECONOMY

Atlantic Canada is intimately linked with the economies of Canada and of the wider world. Many Atlantic Canadians regularly work for extended periods outside the region: in Alberta, on Great Lakes steamers, on oil rigs off Western Africa, or as airline pilots or long-distance truck drivers, etc. As well, the region attracts non-residents as temporary foreign workers, post-secondary students and tourists. People move into and out of the region constantly.

Our transportation hubs, such as airports and ferry terminals, provide entry points that connect travellers with the interior of the region, including rural areas. From these hubs, travellers use personal vehicles or public transit to get to

their final destinations.

When we look at other jurisdictions, and especially European ones, we find a much more seamless transportation network than we do in Atlantic Canada. Airports in Europe are connected to trains or buses and even to seaports, making intermodal travel much easier. So why is it, for example, that St. John's International Airport does not have a connection with the city bus system or the intercity bus system? Or that there is not a central location in St. John's where a traveler can board buses to go to rural areas like the Burin Peninsula or the Bonavista Peninsula? Why are we making things so difficult for travellers?

This session looked at how well Atlantic Canada is connected to the rest of the world. How easy (or difficult) is it for Atlantic Canadians to commute to work outside the region, or for long-haul tourists to tour the region? Why is it more expensive to fly within Atlantic Canada than it is to fly from Atlantic Canada to Central Canada – and even to Europe? Are the region's airlines, ferries, and bus systems providing efficient and affordable services? How well is the long-distance transportation network connected to local networks? Are changes needed to more effectively attract and retain those working in transportation industries such as trucking, marine transportation, aviation, and bussing in the Atlantic provinces? And how can all levels of government, as well as transportation carriers, provide services that are best suited to the region?

This theme included such topics as air and marine access to and within the region, multi-modal collaboration, pricing strategies to increase traffic to and from the region, tourism packaging, inter-provincial coordination, etc.

The session was moderated by Nancy Healey, CEO of the St. John's Board of Trade, and the keynote speaker was Ryan Brain, a Partner at Deloitte in Toronto responsible for, among other sectors, Transportation, and Travel, Hospitality and Leisure. He made the following points in his presentation:

- The global tourism industry continues to grow, with the greatest growth coming from emerging economies.
- New destinations and longer-haul travel are reshaping the global travel landscape.
- Asia and Latin America continue to fuel Canada's arrivals growth.
- International arrivals are growing in Newfoundland and Labrador, Prince Edward Island and Nova Scotia, but rapidly declining in New Brunswick.
- Strengthening Canadian tourism would have a significant impact on Canada's export market.
- The consumer evolution has largely been driven by consumers changing behaviours and paths to purchase; the power has shifted from the seller to the consumer.
- In 2015, Uber, the world's largest taxi company, owns no ve-

hicles; Facebook, the world's most popular media provider, creates no content; Alibaba, the most valuable retailer, has no inventory; and Airbnb, the world's largest accommodation provider, owns no real estate.

- Worldwide, online travel sales continue to rise; travellers are online.
- Feedback and social reviews are given in real-time, all the time.
- Customization and personalization become ever more important.
- New business models continue to emerge. What's next?

The panel featured people with expertise in tourism and transportation in this region: Carol Ann Gilliard, Executive Director of Hospitality Newfoundland and Labrador, the province's umbrella tourism association; Jamie Schwartz, CEO of the Deer Lake Regional Airport and board member of the Atlantic Canada Airports Association; and Dr. Barb Neis. Professor of Sociology at Memorial University of Newfoundland, who is leading a national research project called the "On The Move Partnership", which looks at commuting at all scales, from local to intercontinental.

Guiding Questions for Discussion

1. The Government of Canada considers airports to be sources of revenue: in 2014, Canadian airports returned \$290 million to Federal coffers. This amounts to a "toll" or "user fee" charged to air travellers. (In comparison, highways and ferries are subsidized.) While such a fee might be rational-

ized for larger airports, does such a policy hinder regional development in more peripheral or remote regions?

- 2. To what extent should market forces be the determining factor in setting airfares? Is there a role for government subsidies to air carriers to help them offer affordable airfares on less profitable routes? What other incentives are possible to make less profitable routes more affordable to passengers?
- 3. The major air carriers have used their market clout in the past to restrict competition, usually by reducing their fares when competitors have started operating on their established routes. What is the role of regulators (if any) in encouraging competition in peripheral or remote routes?
- 4. How can we better integrate the different modes of travel: air, marine and ground? What is a realistic vision for how public transit should integrate with air and marine carriers? How can we better connect airports and marine terminals with rural areas where many long-distance commuters live and where many tourists want to visit?
- 5. What should be the optimal mix of infrastructure, public transit, air routes, ferry schedules, etc., that gets people where they want to go in the most efficient, cost-effective, safe and environmentally-friendly manner?
- 6. Are changes needed to more effectively attract and retain those working in transportation industries such as trucking, marine transportation, aviation, and bussing in the Atlantic provinces?

Comments made during the break-out session

- There is a need to raise the profile of transportation as a public policy topic in Atlantic Canada, and especially in Newfoundland and Labrador. Transportation is an issue that deserves more attention, in general, and as it relates to other public policy topics. There hasn't been a Royal Commission on transportation in years.
- Governments generally look at transportation planning simply as maintaining existing infra-structure or at most, as building new infrastructure.

They generally don't consider innovation, trends or future models. There is not enough talk around planning for future change.

- Too often, the impacts on transportation of policy decisions/projects in other areas (e.g., on economic or social policy, healthcare, education, infrastructure, etc.) are not considered, nor are the impacts of transportation on these other areas.
- Transportation is especially relevant for Newfoundland and Labrador, when compared to other jurisdictions. The province as a whole (and especially Labrador) has a small and dispersed population. Newfoundland is an island with no fixed link to the Mainland. And Labrador, although on the Mainland, is remote from the rest of Canada. It is estimated that the province is only three days away from food shortages should the transportation system be disrupted.
- Any transportation strategy must recognize and accept that rural Newfoundland and Labrador is shrinking. The cost of develop-

ing and maintaining infrastructure to be used by small, decreasing populations dispersed over large areas is too high. The Provincial Government needs to provide incentives to centralize the population. The focus should be on developing quality infrastructure for larger hubs and the direct networks between these.

- There is a need to look at and integrate all transportation modes (road, air, marine).
- The federal government is taking millions of dollars annually from airports across the country by collecting rent, but the process by which this happens is not transparent to Canadians. What's more, the rents are based on traffic levels which means that, as traffic increases, so do the rents; therefore, the system acts as a deterrent to growth. This can be harmful to small airports who could use this money to improve quality and passenger experience, to lower fares, to develop new infrastructure, etc. If these rents were abolished, airports could focus on generating more traffic to the regions that they serve. All other forms of transportation are subsidized (including marine service and roads), so why should airports be taxed? Canada is currently one of the most expensive travel destinations in the world if arriving by air; reducing airport rents might permit airlines to decrease their fares. The provincial Public Utilities Boards should be charged with the setting of any airport fees.
- Governments own fleets of vehicles that often sit idle. They should investigate the use of software to optimize the sharing of under-utilized rolling stock between units, departments and possibly even levels of government.

A centralized reservation system might intensify the use of vehicles that are shared among several units. One example is the use of ambulances to transfer non-urgent patients between communities; could this be done less expensively using another type of vehicle? Another is school busses, which are used from September to June, but then left idle over the summer. Could these be used for other purposes?

- Governments should encourage the more intensive use of private vehicles, such as by encouraging carpooling by creating high-occupancy vehicle lanes. Also, through the Open Government process (and possibly by providing funding), they might encourage the development of mobile apps that increase the efficiency of commuting. In Kingston, ON, cab services are more effectively mobilized with the use of a computer-aided dispatch system.
- Governments should create incentives for not using cars (or disincentives for using them) in urban centres. Downtown parking spaces are unconsciously subsidized in most cities, in that parking meters do not recoup the cost of creating and maintaining the spaces; consideration should be given to increasing meter rates.
- In St. John's, MetroBus does not connect to the International Airport. The nearest bus stop is almost a kilometer away, forcing travellers (with luggage) to walk along a busy street that has no sidewalk. As well, the cross-island bus service also does not serve the airport, forcing travellers to take a taxi from Memorial University (the closest stop) to the airport.
- There has been a signifi-

cant downturn in passenger traffic on Marine Atlantic ferries for a number of reasons: a steady increase in the price of gas, the increasing value of time, decreasing flight costs, etc. This decrease in traffic has resulted in a decrease in visitors to Western and Central Newfoundand, causing significant negative economic impacts. It is therefore important for Marine Atlantic to develop strategies and plans aimed at increasing traffic and winning back passengers. However, Federal funding does not allow for long-term planning; while Marine Atlantic's budget is now allocated over three years (an improvement over the former year-to-year process), it needs to be at least over a 10-year period to be able to properly plan, especially if new vessels or new infrastructure are needed.

There has been a 20% increase in the use of the Northern Peninsula Highway since the completion of the Trans-Labrador Highway. The Northern Peninsula Highway is now part of the national highway system but needs to be brought up to standard for speed, usage and traffic. On top of that, travel to/from the Northern Peninsula is currently cost prohibitive. The move-ment of people and goods needs to be reliably provided. With all the research done to plan for the underwater link that would connect the Muskrat Falls hydroelectric project to the Island of Newfoundland, the Provincial Government should re-investigate the feasibility of a fixed link between Labrador and the Island of Newfoundland. The last study was done in 2002, it's time for an update. Considerations for this study should include sustainability, government commitment, prospects of oil off coastal Labrador, and environmentally sustainable technology.

- It would be useful to conduct a jurisdictional scan of best practices from around the world as to how rural areas connect to urban hubs. Another research project could be an analysis of the cost savings to employers of having an efficient public transit system in a metropolitan region, to facilitate the movement of workers within that region. And research should be carried out to determine what incentives are needed to encourage carpooling and reduce wear on current infrastructure.
- There is a need for a multilevel governance structure to oversee the creation and implement-ation of a strategic regional transportation plan in the Northeast Avalon. The plan should include all modes of transportation: air, bus, taxi, minibus, company employee transport, etc. As well, it should include the input of the elderly, the low-income, and the disabled communities. It should consider all forms of financing: public, private and public-private partnerships. It should connect rural with urban. It should value interconnectivity, cost and ease of use. Today, there is no agency or authority with the responsibility to develop regional transportation plans in Newfoundland and Labrador. While the largest community in an urban region would likely stand to gain the most from a regional transportation plan, the plan would need to be funded and/or otherwise supported by the Provincial Government as well as all the communities in the region.
- This strategic planning process would make recommendations to the government based on facts gathered through research and an open and transparent con-

- sultation process. The development of a regional transportation plan should include an extensive public consultation process that includes funding for communities and organizations to hire professionals (such as planners) to engage with government. It should be based on evidence including statistics, trends and other research from professionals and the university. It should have a long-term horizon (10 years or more), so as to match the life-span of infrastructure.
- A strategic planning process could be implemented by a body separate from the government. There needs to be rigour in a system that stands outside of government, which ensures that transportation related policies, programs and developments are based on the current needs in the transportation system.
- A similar planning process would be useful at the provincial level. This process should include an inventory of mobile assets (ground, air and marine), the mapping of these assets according to geographic location, and an analysis of transportation gaps. The key would be to identify where different transportation modes connect with each other. The process should also capture opportunities for small business to fill transportation gaps.
- When you get off the cross-island DRL motorcoach in Gander, how do you get to Centreville? Unless you know people to pick you up, you can't. A more interconnected transportation system is needed for smaller areas, to connect rural hubs to even more remote areas. In rural areas, people need to go to the drug store, bank, etc., but often don't have the

means to do so.

In some regions, there are carshare/ride-share options, but some people may not feel comfortable sharing a vehicle with strangers; in short, people aren't utilizing these oppor-tunities. Throughout Atlantic Canada, there exist private sector and community sector organi-zations that provide transportation services to rural areas. These may serve as a model to those regions where such services do not yet exist.

- There is a need to provide some sort of inter-modal network for efficient transportation across the entire Atlantic Region.
- The marine and aviation sectors are relatively good at recruiting and retaining workers, but this is not the case for bus drivers or truckers. Jobs in these industries are lower paying than in the marine and aviation sectors, but still pro-

- vide steady career options. More effort is needed to promote the ground transportation sector to younger people; for one, industry should be more active in promoting opportunities and in improving benefits in the sector. Promote the transportation professions when people are young, and ask people what they would like from a bus driver/trucking position from a job satisfaction standpoint.
- The Government of Newfoundland and Labrador subsidizes the use of an intra-provincial ferry service, which is also used by non-residents. Government should explore a two-tier fee structure for the Provincially-operated ferries, where residents of the province would be subsidized and others paying the market rate.
- Responsibility for transporting employees to temporary remote work sites should rest with the employer. The public purse

- should not be used to increase profits of industry. There should also be corporate responsibility to incentivize carpooling/use of transit shuttle, allowing for emergency services should an employee have to leave remote work site immediately.
- Municipal governments should explore the feasibility of "transportation as a subscription service" and support initiatives that encourage use of such services, such as Velib, Citibike, CarShare, etc. In such services, vehicles are provided by the municipality for nominal fees. The model would be particularly valuable when self-driving cars become available (possibly within a decade). The key to adoption will be setting an appropriate pricing strategy for these services.

Keynote Presentation

Ryan Brain, Deloitte (Toronto)

Tourism and Travel: the new consumer in an increasingly important industry

Panelists

Carol Ann Gilliard, Hospitality NL (St. John's)

Dr. Barb Neis, On the Move Partnership, Memorial University (St. John's)

Jamie Schwartz, Atlantic Canada Airports Association (St. John's)



6 THEME 2:

SOCIAL AND EQUITY ASPECTS OF TRANSPORTATION

Transportation is the circulatory system of society. It is through the transportation system that people get to and from work, school, shopping, health care, recreation, etc., etc. Transportation is not a value-neutral activity; the policy decisions we make will have an impact on certain classes of people, some positive and some negative. It is important that these ethical issues be incorporated into any strategic planning for the sector.

Most people don't think twice about transportation: if they want to go somewhere, they simply jump into their cars and go. But what if you couldn't do that? What if you couldn't afford a car? Or what if you had a physical or

mental condition that prevented you from being able to drive? Or what if your values made you prefer human-powered movement, such as walking or biking, but were stymied by the lack of cleared sidewalks in winter or the absence of safe biking lanes?

Shift workers, many of whom are minimum-wage earners, have limited access to public transit at night and during weekends, and therefore may be forced to turn down work, this during a period of looming labour shortages. Persons with mobility challenges may be stuck at home for extended periods during the winter months. For these and many other individuals, a lack or infrequency of public tran-

sit reduces mobility.

What if you lived in a low-density rural area? With the centralization of public services, such as education and health care, rural residents are even more dependent on the transportation system. To what extent must rural residents depend on their own vehicles or on their families? What options are there for public transit in low-density areas?

And should we provide incentives for people to carpool in order to reduce CO2 emissions? Should we encourage people to abandon their cars in favour of physical activity, in order to reduce obesity and chronic illnesses due to inactivity? Which are the most walkable and bike-able municipalities in Atlantic Canada and what can other communities learn from them?

How do existing transportation options contribute to social inequity in Atlantic Canada? How might a renewed focus on finding transportation solutions promote the increased social inclusion of youth, women, immigrants, the elderly, persons living with disabilities, and those in lower income brackets? Could better public transportation contribute to improving access to health and social services, training, and education; lowering unemployment rates; and increasing population growth? And are there innovative ways to incorporate transportation issues into discussions of social policy?

This theme included topics such as innovations in public transit, municipal policies on snow-clearing, car-sharing and bike-sharing, urban design and regional planning, etc.

The session was moderated by Mike Clair, Associate Director (Public Policy) with Memorial University's Harris Centre. The keynote presenter was Dr. Susan Hanson, an urban geographer from Clark University in Worcester, MA, with interests in transportation, gender and economy, local labor markets, and sustainability. Her presentation addressed the following points:

- Transportation does not only refer to modes and vehicles, like trains, planes and automobiles; transportation also means access and mobility.
- Transportation touches every aspect of society; it is deeply implicated in the economic, social,

political, and cultural well-being of places: neighborhoods, communities, provinces, regions and countries.

- The current system is not working; it's not efficient, not equitable, and not effective.
- We need to develop a framework for solving problems that have a transportation/access/mobility dimension.
- Problem solving will require thinking about transportation broadly, inclusively, and differently this means putting equity issues front and centre.
- Equity: how are the costs and benefits of transport investments distributed across places and population group?
- This will require acrossthe-board collaboration and cooperation: among modes of transportation, between public and private decision makers, among all levels of government, across diverse agencies, etc.
- Properties of an ideal transportation system: (1) instantly able to go anywhere—free! (2) no friction of distance (spatial separation has no impact); (3) no worries regarding connectivity between modes; and (4) the negative externalities are kept in check (e.g., emissions, crashes, congestion).
- A new transportation framework would focus on (1) spatial access to opportunities; (2) costs; and (3) externalities. Equity issues span all three.
- What does this framework and focus on equity imply for policy? (1) Base policy on evidence; (2) engage diverse stakeholders; (3) identify research needs; and (4)

link research to policy.

The panelists for this event were Dr. Sharon Roseman, Professor of Anthropology at Memorial University of Newfoundland, the Academic Editor at the university's Institute of Social and Economic Research, and a member of the Executive Committee for the "On the Move Partnership", a multi-institutional research project examining employment-related geographical mobility in the Canadian context; Kerry Murray, Director of Economic and Social Policy with the Newfoundland and Labrador Federation of Labour; and Kathy Hawkins, Manager of the Employer Supports and Services Program of the Independent Living Resource Centre in St. John's.

Guiding Questions for Discussion

- 1. Do existing transportation options contribute to social inequity in Atlantic Canada? How might a renewed focus on transportation solutions promote the increased social inclusion of youth, women, immigrants, the elderly, persons living with disabilities, and those in lower income brackets?
- 2. What is the relationship between affordable housing and transportation? What is the role of public transit in connecting affordable housing which more and more is located outside of city centres with employment, post-secondary education, health care and other services which are often located in city centres?
- 3. What can be done to improve the effectiveness and efficiency of public transit for people with mobility challenges, in order to facilitate their participation in the labour market and/or to improve their quality of life?

- 4. What innovations in technology, policy and/or practice could be adopted to make our cities more walkable year-round, and more bike-friendly during the summer?
- 5. What role does public transit play in making our cities more competitive in the national and international labour market? What expectations do newcomers have about public transit and does the transportation system of Atlantic Canada meet these expectations?
- 6. How can our transportation system better connect persons in rural areas who need to travel to service centres for health care, shopping and other services? What policies and practices exist in other jurisdictions that connect people in lower-density regions to services in urban centres? To what extent do those transportation systems depend on user fees and to what extent are they subsidized?
- 7. What changes are needed to our transportation system to reflect the changing demographics of Atlantic Canada, especially the hollowing out of rural areas and the aging of the population?
- 8. How can transportation help to reduce social inequity by making travel available, affordable and convenient over any distance travelled?

Comments made during the three other break-out sessions

(It should be remembered that this session was open to the public and therefore structured differently than the other three sessions. In particular, no time was set aside for in-depth discussion among participants. The comments below have been culled from discussions

- in the other three themes that related to equity issues. Therefore, the smaller number of comments below is not indicative of a lesser interest in equity issues by the participants.)
- Social equity should be more front-of-mind when planning for transportation.
- It's essential to apply a "transportation lens" to social policy development or program changes, and also to apply a "social policy lens" to transportation policy or program changes. Changes to social programs often have unintended/indirect impacts on transportation options and this needs to be considered; for example, recent changes to Employment Insurance that expanded the geographic scope for employment are meaningless if there is no public transit to get low-income workers to a more distant employer. Agencies involved in transportation planning should expand their scope to recognize that transportation can help with health, social, environmental and other issues, not just the provision of infrastructure. The provincial wellness advisory council has made recommendations to the province in a recent paper that are consistent with this discussion.
- It is very difficult for a wheelchair user to access multi-modal transportation in order to travel across the Island of Newfoundland. And in many communities in the province, there is no wheelchair-accessible transportation option. (In St. John's, Metrobus is beginning to make their busses wheelchair-accessible on certain routes.)
- Two generations ago, most everyone in St. John's used public

- transport or walked, including city politicians and bureaucrats. Today, public transit is considered proper only for "poor, 2nd-class citizens" or students, in other words, it's not cool to use public transit. Too few people ride public transit and so the City has to subsidize the service. The people making transit decisions (City Councillors and Metrobus decision-makers) are usually not regular riders. While the service is good, it ranks very low on the city government's priority list.
- A regular Metrobus user complained of people spending hours in focus groups, on several occasions, offering suggestions/solutions which were eventually ignored by the decision-makers. New ideas are said to be too expensive even though if transit were more accessible, efficient and time-effective, more people would USE It and more of the costs would be recovered. Service to the public seems a low priority. Some complaints mentioned:
- o Provide better quality service (time-to-destination). Routes are too long and service too infrequent. There are no express commuter routes.
- o There are too few shelters with any sort of seating.
- o In winter, stops are often filled with snow and ice; people have to crawl over snow drifts to board or debark and there is a danger of falling under the wheels of the bus.
- o It's difficult for parents with strollers to use the busses.

- o There is no single map that includes all routes; riders have to consult a different map for each route.
- o The destination signs on the fronts of the busses are often dirty, making it impossible to identify one's target bus from a distance.
- o Bus drivers often have unpleasant commercial radio music which goes throughout the bus.
- More public engagement is needed to be mindful of social equity of transportation. Different stakeholders must be consulted and engaged prior to making definitive plans. Ensure that vulnerable populations in particular are

- invited (e.g., elders with mobility handicaps, immigrants, low-income shift workers, etc.).
- Several years ago there were more public transit options for rural residents to get to St. John's than today.
- A partnership between the public and private sectors for transportation should be encouraged, as the private sector can supply many services more efficiently than governments, while the public sector assures equity and universal availability of services. Social enterprises may also play a valuable role in providing transportation options.

Keynote Presentation

Dr. Susan Hanson, Clark University (Worcester, MA) Rethinking Transportation

Panelists

Kathy Hawkins, Independent Living Resource Centre (St. John's)

Kerry Murray, Newfoundland and Labrador Federation of Labour (St. John's)

Dr. Sharon Roseman, On the Move Partnership, Memorial University (St. John's)



8 THEME 3

ECONOMIC AND POLICY ASPECTS OF TRANSPORTATION

There are many important strategic questions to consider in the realm of transportation, such as: What additional infrastructure or services do we need? Who should pay for improvements in the transportation system: taxpayers, carriers, users? And if taxpayers should pay, to what extent should they subsidize users and carriers? Should peripheral regions in Atlantic Canada be subject entirely to market forces when carriers set airfares?

What are the advantages and disadvantages of entering into public-private partnerships to construct and maintain transportation infrastructure? At the local level, are we unconsciously subsidizing the use of personal vehi-

cles at the cost of public transit or human-powered movement? What efficiencies could be created through improved policy coordination at the level of the Census Metropolitan Area, at the level of the sub-provincial region and at the Atlantic Regional level?

What are the roles of governments, non-governmental organizations, businesses and citizens in re-envisioning our future transportation system? How can various levels of government collaborate to better integrate transportation options at the local, sub-regional and regional levels? What role do market forces play in determining transportation options in the region? Are there innovative ways to incorporate transportation into discus-

sions of economic policy? What social innovations are needed to implement a transportation system better suited to the needs of our 21st Century society? How can we integrate technology, financing, social marketing and other tools to change the way we travel? And what mitigating measures could we adopt to minimize the disruptions of moving from our current system to a better one?

This theme aimed to look at topics such as pricing mechanisms to reduce traffic congestion in urban areas, new infrastructure vs. more intensive use of existing infrastructure, public-private partnerships in transportation, efficiencies related to improved policy coordination, and so on.

The moderator for the session was Glenn Davis, Vice-President of Policy with the Atlantic Chamber of Commerce, based in Moncton. The keynote presenter was Brian Flemming, who had chaired the Canada Transportation Act Review Panel of 2000-1 and who was the principal author of Vision and Balance, regarded by many as the "bible" of Canadian transportation policy. He is a lawyer who calls Halifax home. His presentation is included in appendix; here are the main points:

- Road traffic continues to be the principal transport problem today, and we can predict it will continue to occupy that position in the years to come.
- Studies keep telling us that the cost of public transit appears not to change the preferences of car drivers who steadfastly want to stay in their cars. And cars get people to where they want to go twice as fast as public transit. Convenience thus plays a big part in transport choices. So, any proposals for renewal of transport-related infrastructure must start and end with roads and who pays for them; who maintains them; who owns them; and the most important question - the "Big How" can users eventually be made to pay for the real costs – including all the externalities – they impose on the road system? Can the Canadian public ever be weaned from thinking of roads as free, public goods?
- As all governments struggle with debt and deficit and there continues to be a hardening of public attitudes against general taxation increases conversations about transport infra-structure renewal usually start with discussions about gas tax sharing and end with

proposals to charge users for road

- A major policy question for smaller cities like St. John's is whether coordinating bodies should be created to coordinate transportation at a regional level.
- Another big policy question relates to the role of the Federal Government in ground trans-portation because more than 95 per cent of Canada's infrastructure spending is controlled by provinces, territories and municipalities. The federal government in 2015 is really a bystander. It has no ongoing liability for projects financed by its Building Canada money. But a more activist, visionary government in Ottawa could do much more, for example through some form of infrastructure bank or Crown Corporation responsible for infrastructure financing, where it would put its good credit rating and low debt servicing costs at the service of tapped-out provinces and cities. It could also partner with the large pension funds which are famous for being among the most savvy infrastructure investors anywhere in the world.
- The most obvious and now predictable change in transportation infrastructure may be driven by the automated vehicle in its various forms and the immense computer power that will be available to make these vehicles work efficiently and effectively. If indeed the automated vehicle is in our future and if indeed these vehicles will be with us in about a decade or two, then how we build and maintain roads and run transit systems will change dramatically. Transit systems may morph into Uber-like operations that are run and paid for completely differently

than today's transit models.

The panelists for this session were Remo Bucci, an expert on public-private partnerships the realm of transportation, with Deloitte in Toronto; Dave Reage, Manager of Planning and Scheduling with Halifax Transit (in Atlantic Canada, Halifax Transit is a leader in knitting together a transportation system at the level of the Census Metropolitan Area); and Garrett Donaher, Transportation Engineer with the City of St. John's. Their presentations are included in appendix.

Guiding Questions for Discussion:

- 1. How important is transportation in sustaining the economy of Atlantic Canada and in enhancing the quality of life of its residents? Is this level of importance adequately recognized by decision-makers and, if not, what arguments should be advanced to raise its profile? Are there innovative ways to incorporate transportation issues into discussions of economic policy and social policy?
- 2. Is the current level of research sufficient to make informed decisions about transportation issues in Atlantic Canada? Should governments, universities and think-tanks invest more time and effort in transportation research? What research is needed to make better decisions about transportation policy? How widely should the research findings be communicated?
- 3. What are the roles of governments, non-governmental organizations, businesses and citizens in re-envisioning our future transportation system?

How can these various players better coordinate their efforts? What efficiencies could be created through improved policy coordination at the level of the Census Metropolitan Area, at the level of the sub-provincial region and at the Atlantic Regional level? What are the roles of governments, non-governmental organizations, businesses and citizens in re-envisioning our future transportation system? How can various levels of government collaborate to better integrate transportation options at the local, sub-regional and regional levels? What role do market forces play in determining transportation options in the region? Are there innovative ways to incorporate transportation into discussions of economic policy?

What social innovations are needed to implement a transportation system better suited to the needs of our 21st Century society? How can we integrate technology, financing, social marketing and other tools to change the way we travel? And what mitigating measures could we adopt to minimize the disruptions of moving from our current system to a better one?

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- 4. Should our downtown cores reduce their reliance on the

- automobile? What innovative policy approaches (incentives and disincentives) could be adopted to do this? What changes would be required to traffic regulations, to development regulations and to public transit to facilitate this change?
- 5. What innovative policy approaches could be used to improve the transportation system of Atlantic Canada: at the community level (e.g., time-of-day incentives, high occupancy vehicle lanes, downtown congestion tax, etc.); at the provincial level (e.g., better intermodal connections, improved tourism packaging, etc.) and at the Atlantic Regional level (e.g., improved air connections to the US, Europe and the North)?
- 6. Who should pay for improvements in transportation: taxpayers, carriers, users? To what extent should taxpayers subsidize users and carriers? What are the advantages and disadvantages of entering into public-private partnerships to construct and maintain transportation infrastructure?

Comments made during the break-out session:

Due to unique attributes (small and dispersed population, types of commuting, cultural issues), Atlantic Canada in general, and Newfoundland and Labrador in particular, need focused research on transportation. Finding best practices in other jurisdictions would be useful. There needs to be more research on long-term trends, efficient use of resources, access to the province, innovations, solutions for low-income travellers, alternatives to cars, access to rural areas, etc. But who would fund this research, and how would it be carried out?

- Transportation is one of the most underrated policy issues in Newfoundland and Labrador, especially since one part (Newfoundland) is an island and the other (Labrador) is remote. For these reasons, transportation affects most aspects of life and business (tourism, food security, handicapped access, business costs, environment, etc.) more directly than in other places. Despite its importance, government's attention seems more focused on maintaining current infrastructure, such as filling potholes, paving sections of road, repairing bridges, etc., than on addressing long-term strategic questions.
- Because most people travel outside their municipal boundaries daily, transportation should be viewed through a regional lens. However, with the dissolution of the Rural Economic Development Boards, regions in Newfoundland and Labrador no longer have coordinating bodies to lead strategic planning or to advocate for change. The Provincial Government should consider either giving the transportation mandate to the existing Rural Secretariat Committees or creating new regional boards to plan and coordinate transportation issues.
- Provincial governments could consider creating a committee of Cabinet dedicated to transportation, since transportation affects each portfolio and actions within each portfolio affect transportation in some way.
- Is traffic congestion that much of an issue in Newfoundland and Labrador? The only area of high traffic is St. John's and, that, only at certain times of day.

And should Metrobus increase its carrying capacity, given that busses are often carrying only 1-2 passengers?

- St. John's needs a culture change to get people out of their cars and onto public transit. Some strategies could include increased parking meter rates, a reduction of parking spots and reserved parking for carpools. For its part, Metrobus could increase its efficiency and attractiveness by, among other things, installing Wi-Fi on its busses; creating express bussing routes to downtown, bigbox store complexes, the airport and other popular destinations; and/or purchasing smaller vehicles to make more frequent direct trips between key destinations (the "jitney strategy"). Research could be undertaken of best practices in other jurisdictions.
- Any policy review of transportation in urban areas of the region should aim to increase the provision of transportation choices (roads, trails, bike lanes, sidewalks, etc.),

and should look to amend existing development regulations that inhibit variety and choice. Systems should be integrated and modes should be easy to use, accessible and efficient.

• Provincial governments should take a much more active leadership role in planning trans-portation systems at a regional level. ("Why does a full-sized bus go to Goulds but not Torbay, a similar distance away? Because the former is part of the City of St. John's and the latter isn't.") St. John's is surrounded by bedroom communities – public transit is the ideal option and should be prioritized for investment. Additional

investment in public transit systems is necessary to increase its use.

- Transportation needs to be coordinated at multiple scales: neighbourhoods, communities, regions, province-wide and Atlantic-Region-wide. It is essential to "right-size" public transit at all levels. We need to think creatively about efficient, sensible transportation at all scales. Atlantic Canada is a fertile ground for collaboration on transportation issues since there's no competition between the provinces.
- There needs to be a public education campaign to change attitudes about transportation. For example, there is a need to raise public awareness of the real costs and implications of automobile use (on health, environment, productivity, etc.) and of viable alternatives. Apply the lessons learned from the food education movement, or the use of seat belts; social marketing could be of use here.
- There needs to be a bold and frank national examination of our current and future infrastructure investment requirements and how we will pay for them, including a comprehensive look at alternative transportation solutions. Is the current funding system sustainable? Should there be more tolls or higher user fees for the use of some infrastructure, such as bridges and ferries? How does the taxation system contribute to or hinder the development of transportation infrastructure, both provincially and federally? 30% of the country's bridges are over 100 years old and will need upgrading in the coming years, but where will that money come from? Are there innovative ways to provide trans-

portation that is more cost effective?

- Establish a committee to create an improved regional transportation system for the Northeast Avalon. This committee would have broad representation from all levels of government, industry and community stakeholders, and would have the goal of creating a long-term, regionally integrated and accessible transportation system for the Northeast Avalon. The planning horizon for the plan should 20 years. We need to look at the impact of traffic flowing into and out of the city from surrounding communities and how those communities can be integrated into the regional transportation plan. There is a mentality that we just need more built infrastructure, but that may not be the case; this committee could examine this mindset. This model could also be applied to other regions throughout the province and Atlantic Canada; use the Halifax system as a model.
- The public transit system must be coordinated with parallel systems (such as snow clearing).
- The availability of parking is a major factor against the use of public transit. Public transit does not make sense if there's so much cheap parking. Throughout the region, downtown parking is subsidized, and parking spaces are not priced at their true value. An increase in the parking fees in congested areas would increase ridership/revenue in public transit, that could be reinvested in further enhancing the public transit system.
- Is the population too spread out in Atlantic Canada to provide appropriate ground transportation service? Icelannd dispr-

oves this notion; the country has a population even more dispersed than Atlantic Canada's yet has a well-integrated ground transportation system.

- Explore the "Halifax Transit model", where some employers provide incentives for their employees to use public transit.
- Whose responsibility is it to develop a regional transportation strategy? Non-governmental organizations and in particular business associations may need to take the lead in developing a regional transportation strategy since they have the resources, the mandate and the independence to address issues that governments

might be unwilling to touch due to political considerations.

- One strategic approach to creating change in transportation would be to first deal with some low-hanging fruit, such as continuous bike lanes or walkways for university students.
- The money spent on parking and other transportation costs should be reinvested directly back into transportation. The public needs to better understand how transportation is funded and where the money goes.

Keynote Presentation

Brian Flemming, Van Horne Institute (Halifax)
The Political Economy of Canada's Transportation Policy in 2015: The "What" is Easy, the "How" is Hard

Panelists

David Reage, Halifax Transit Garrett Donaher, City of St. John's Remo Bucci, Deloitte (Toronto)



9 THEME 4

INNOVATIONS IN TRANSPORTATION

The world's transportation system has never known such disruption as is currently under way today.

In the next few years, long-haul cargo planes will be flown from the ground, much like military drones are today. Passenger airlines are already thinking about how to overcome resistance from their clients before their planes are also flown by ground-based pilots. Next year, due to technological enhance-ments, airplanes will be able to land in pretty well any weather at the St. John's International Airport — probably the airport with the severest weather in the Atlantic Region.

On the ground, in the next few years, driverless cars will be widely available; some cars already on the market can parallel park themselves with no human involvement.

Another recent development is the rise of the sharing economy. For example, with the help of mobile apps, car owners can now rent their vehicles to strangers when these vehicles are idle, say, when they are parked in an office garage while the owner is at work. Or car owners looking for extra cash can now use their cars as taxis, using apps such as Uber or Lyft. AirBnB allows tourists to find private accommodations at their destination.

After decades of relying on personal vehicles, people – and especially younger people – are questioning the impact of these vehicles on the environment, on human health and on the sense of community. Urban design that privileged the family car, encouraged sprawl

and led to long commutes is being called into question; people resent the time spent on commuting that could be spent more productively – on family, leisure or exercise.

With urban sprawl, people are driving longer distances, often alone in their cars, and emitting more greenhouse gases. With increased numbers of vehicles on the road and therefore more gridlock, drivers and passengers spend more time sitting and less time being productive. Longer commuting times translate into less time for exercise, leading to obesity and health problems. What can be done to reduce time spent in cars, to reduce non-productive time and to get people to adopt healthier lifestyles?

This theme included such topics as "intelligent transportation sys-

tems", mobile apps, coordinated regional approaches, architecture and urban design, staggered commuting times, and creative approaches that reduce the need for travel, such as tele-work, satellite offices and video conferencing.

session was moderated by Tracey Hennessey, Regional Manager (Coordination and Policy) with the Newfoundland and Labrador Regional Office of Transport Canada, and the keynote speaker was Michael Bailey. Among many other things, he has served on a number of prominent transportation sector Boards, including the Transportation Association of Canada, the Institute of Transportation Engineers, the Atlantic Provinces Transportation Commission and Intelligent Transportation Systems Canada. The main points of his presentation (in appendix) were:

- Connected cars are real and they represent significant breakthroughs in the application of technology to the task of driving: you don't have to steer, apply the gas or brake, or signal for turns. Known development challenges include reversing, work zones, pedestrian prediction, rare events and extreme weather. Fully autonomous vehicles could be ready by 2025 and truly autonomous cars will populate roads by 2028-2032, according to some estimates. Connected vehicles are expected to yield a 30% reduction in collisions and fatalities.
- Regulations will have to keep up.
- Trust and price may be barriers to the uptake of connected cars.
- Young people are no longer in a hurry to drive. The context

of social interaction has fundamentally changed, i.e., cars are less needed for work or leisure.

- Disruptions in the automotive, transport and energy sectors:
- o Smoother sensor- and computer-managed acceleration and deceleration are expected to improve fuel consumption by 4 to 10 percent. Potentially lighter (but less "crash resistant") vehicles present further opportunities for reduced fuel consumption, with predictable impact on vehicle maintenance and the steel industry.
- o Jobs will be lost once drivers become unnecessary; some taxi, truck, and bus drivers may lose their livelihoods and professions. Other types of jobs will be created, such as automotive computer programmers and technicians.
- o Reduced collision rates and motor vehicle-related fatalities and injuries will disrupt the entire "crash economy" of insurance companies, body shops, hospitals, chiropractors, and others.
- o Better utilization of roadway infrastructure will reduce demand for new roads and parking facilities.
- Autonomous cars: a conundrum of ethical considerations?
- o As a driver, I have real-time choices to evade or mitigate damage from an unavoidable collision that will occur in the next second. In the same situation, for an autonomous car, those choices have already been made and encoded into a probabilistic algorithm, months or years ago, by an

anonymous programmer in a faraway lab – but the algorithm has no sense of moral or even ethical consideration.

- o The autonomous vehicle calculates probable outcomes and simply executes to achieve the best possible outcome. But what is the "best possible outcome"?
- Accepting that connected vehicle technology will substantially improve roadway safety and reduce collisions, and mitigate fatalities and injuries when a collision does occur: how will consumers react to the prospect of new vehicles being lighter with fewer injury-mitigation features? How will policy makers react?

There were so many areas of innovation in the field of transportation that it was difficult for the Program Committee to settle on just three speakers. The three that were selected provided three very different "takes" on transportation innovation: Esteban Ricalde-Gonzalez is a PhD student in Computer Science at Memorial University of Newfoundland, where he is studying integrated traffic systems. Scott Morton-Ninomiya is the Affordable Housing Coordinator for the City of St. John's and volunteer with CarShareNL, a new social enterprise in St. John's. And Mary Bishop is Senior Project Manager with CBCL Limited in St. John's who, in her role as an urban planner, has worked throughout Newfoundland and Labrador for the past 30 years on local, municipal and regional planning projects.

Guiding Questions for Discussion

1. What can be done to reduce time spent in cars, to reduce

non-productive time, to reduce ocial inequities and to get people to adopt healthier lifestyles? To what extent should transportation be motorized and to what extent should it depend on human power?

- 2. What role should Atlantic Canadians play in fighting climate change by altering their travel patterns? To what extent would shifting from personal vehicles to public transit or to non-motorized modes of transportation help reduce the region's CO2 emissions? What innovations would be needed in the realms of technology, policy and practice to make this happen?
- 3. How can we integrate technology, financing, social marketing and other tools to change the way we travel and the way we develop our transportation system?
- 4. To what extent can improved communications technologies (such as videoconferencing) reduce our dependency on travel? Should governments invest in promoting such technologies to reduce the need to travel?
- 5. Do existing policies facilitate or inhibit the sharing of transportation assets, such as personal vehicles or bicycles? What is the appropriate balance between facilitating market entry by amateurs and protecting established businesses, such as taxi companies and car rental agencies? What safeguards are required to ensure the safety of the public?

What are the risks with autonomous vehicles, such as driverless cars or pilotless drones? Are driverless cars less likely to be accident-prone than those driven by human beings? What safeguards should we insist upon before licensing autonomous transportation vehicles? What level of human redundancy should we insist upon while these vehicles are being introduced? If driverless cars are less prone to accidents, can we reduce the manufacturing costs and make vehicles lighter by cutting back on safety features, such as reinforced frames and airbags?

Comments made during the break-out session

- Consider implementing road pricing/congestion pricing to better reflect the value of using downtown streets. Also consider usage-based costing, i.e., charging drivers according to distances and routes driven; usage could be monitored by GPS. Finally, consider providing drivers with a discount based on safe driving practices (avoiding speeding, etc.), based on the on-board computer data. The metadata gathered from thousands of vehicles could be extremely useful for planning and regulation.
- There needs to be research on the real costs of driving a vehicle in order to incentivize people not to drive. We could experiment with replacing the gas tax or the property tax with a road pricing scheme that was revenue-neutral for the public. The system should be designed so it can be fine-

tuned; equity issues would need to be considered (e.g., rebates for vulnerable populations).

- Encourage the use of satellite offices, office sharing and working from home in order to reduce travel and infrastructure costs. Institutionalize the decentralization of office work so that it becomes the norm in organizations that people can work closer to where they live. Better plan communities to increase the opportunities for people to work closer to where they live and shop.
- Provincial and municipal regulations make it difficult to engage in the sharing economy. For example, initiatives like CarShareNL encounter difficulties when seeking to register vehicles with the Provincial Motor Vehicle Registration Division.
- There is a need to conduct research into designated lanes on major highways for multiple-occupancy vehicles. Look into using paved shoulders for bus lanes/express routes.
- There is also a need to conduct research into what it is costing society to maintain the system we have now, especially the cost of unbridled urban sprawl. Include not just the cost of extending infrastructure, but the impacts on health, the environment, productivity, etc.

- There needs to be a way for people to know what others are doing with regard to transportation, and to get out of their silos. Following the New Brunswick model, explore the possibility of creating regional service boards with a mandate to coordinate transportation policy – and possibly investments in transportation infrastructure. The authority could be composed of representatives of municipal governments in the region and/or independently elected members. Legislation exists in Newfoundland and Labrador for regional service boards, e.g., the regional waste management boards. Alternatively, government might consider a provincial-level board mandated to coordinate transportation policy.
- Is it possible to create a mechanism to share or pool resources so they work better for everyone? Groups often compete for the same resources, but if they worked together better, there could be possibilities for everyone to benefit. For example, there is already a medical transportation assistance program that brings people to medical appointments when necessary; perhaps this program could extend to bringing children to school programs when possible if they don't have any other transportation (for example when they need to stay late at school for a program and thereby miss the school bus).
- Transportation moves not just people it's also mail, goods,

- etc. The transportation system in rural areas should use a mix of transportation approaches. Can technology help make these interconnections?
- Integrate land use and transportation planning. The issue is not only the transportation system, we also need to look at where people live and where developments are happening. We need a transportation system that is in line with the realities of people's needs. For example, denser settlements may need more frequent access to public transportation than sparser settlements. Government and other leaders need to think in a visionary way to develop transportation and land use patterns that will work best in the future.
- Consider and review approaches to regional governance in the province of NL. The Regional Economic Development Boards are sorely missed throughout the province. What can be done in their absence? Is there a new type of system that could be developed? Regional boundaries for many services (such as health, education, waste management, transportation, etc.) often do not match up, which creates governance challenges. Is there a way to streamline the approach to "regions" that is taken in the province so there are fewer layers and the system makes more sense to more people?
- Assess the whole picture and total cost of new technologies. A good example of this is electric cars; you have to look at where the

- electricity comes from (e.g., hydroelectricity vs. coal-burning generation); the car is only as environmentally sustainable as the source of the electricity. If we push new technologies blindly with the assumption that they are "better", it might undo progress that has been made. Development and use of any new technology needs to be based on the analysis of the real costs and benefits.
- Encourage the Government of Newfoundland and Labrador to exercise more leadership in drafting a transportation master plan. This plan needs to be informed by a rigorous consultation process and research. It needs to include a comprehensive vision that includes all modes, impending trends (e.g., driverless cars), urban-rural connectivity, etc. The development of such a plan is hampered by a lack of continuity within the public service: politicians and senior executives are moved too frequently to become intimately familiar with all the issues involved with transportation.
- The Federal and Provincial governments need to improve their engagement with the auto-motive sector. They should convey the suggestions of existing advocacy groups (environmental, health care, moose-vehicle collision prevention, etc.) to push for improved standards that recognize new technology/safety needs.

- Modernize "Motor Vehicle Standards" at the Federal level in order to facilitate the adoption at the Provincial level of new safety technologies. Having the Federal Government take the lead would obviate the need for each province to update its own individual headlight regulations, for example.
- Build up the policy research capacity of the Newfoundland and Labrador Department of Trans-portation and Works to enhance strategic planning. Currently, the department has no job classification for "Policy Analyst"; such a role is necessary to keep the department up to date with ongoing changes in the field.
- Explore the possibility of creating a preferential tax and/or sale incentives to increase the popularity of electric/hybrid vehicles and Carshare programs, such as rebates for vehicles and charging stations, time-of-day discounts for electricity rates, reduction in registration fees for shared/electric/ hybrid vehicles, tax incentives for new housing developments to include shared cars for residents and charging stations, preferred downtown/transport hub parking spaces for shared/electric cars, and/or funds raised through parking fees put towards more sustainable in-

frastructure/programs.

- Encourage the wider use of electric vehicles by having governments purchase such vehicles (cars, busses, trucks) and construct charging stations at government offices.
- Sponsor contests to identify creative ways to address the limitations and the physical realities of living in our environment (climate, population density, availability of land in city core and outside, etc.) by combining architectural design, development regulations, technological innovations and social innovations.
- Distinguish between policy issues and resource issues. For example, commuting from St. John's to Fort McMurray is a resource issue in that the number of flights can be adjusted depending upon demand. On the other hand, getting to St. John's Airport from rural Newfoundland in the absence of public transit is a policy issue.
- In St. John's, improve the safety of bikers and re-evaluate the policy that bars bicycling on the city's walking trails, especially to hubs such as the Confederation Building, Memorial University,

and downtown.

- Extend public transit to rural/exurban areas in order to reduce the use of personal vehicles. Undertake consumer research to determine preferences for routes, frequency of service, cost, etc. What would it take to make people move from their personal vehicle to public transit?
- Innovation is also needed in policy development. There is a need to engage people in a variety of ways to develop multi-modal transportation networks: webinars, social media, Twitter, catered face-to-face meetings, among others. Cities may be better at engaging the public than the Provincial or Federal governments.
- There are not as many different options for travelling across the Island of Newfoundland as there were several years ago. In other countries such as in Europe, they are much better at connecting multi-modal types of transportation. Traditional models of transportation are ending how do we plan for new, modern types of transportation?

Keynote Presentation

Michael Bailey, Intelligent Transportation Systems Canada (Toronto) What is the Connected Car Connected To?

Panelists:

Scott Morton-Ninomiya, CarShare NL Esteban Ricalde-Gonzalez, Memorial University (St. John's) Mary Bishop, CBCL Ltd. (St. John's)



10 RECOMMENDATIONS

Transportation of people is an essential element of any society; it is all the more important for regions that are isolated, like many regions in Atlantic Canada. It involves movement over a variety of distances and for a variety of reasons: work, education, healthcare, commerce, leisure, etc. The transportation system includes a variety of modes of travel, such as cars, taxis, busses, trains, ferries, planes, bikes, etc., which can be owned by individuals, businesses, social enterprises or governments. Transportation depends upon infrastructure, such as roads, rails, airports, seaports, biking trails, etc., which are normally publicly financed and maintained – by three different levels of government.

The transportation system in any

area is meant to serve the needs of residents and visitors. These needs are in constant evolution – because of the centralization of public services, changes in tourist behaviour, changes in commuting patterns, new housing or commercial developments, etc. However, changes to the transportation system generally lag such social changes - sometimes by decades. As well, people using a region's transportation system (whether residents or visitors) completely disregard jurisdictional ownership of the various parts of the system: people cross municipal boundaries and mix modes of travel without thinking about who owns or maintains the infrastructure or the vehicles/fleets.

How people use transportation is suffused with cultural prefer-

ences, including attitudes toward public transit, urban sprawl, the environment, physical activity, etc. Transportation also carries an important ethical dimension, in that it provides (or not) access by vulnerable populations to important public services (education, healthcare, etc.), to leisure, to commerce, to the labour market, etc. There is usually a transportation component in every decision affecting economic and social policy, and every decision affecting economic and social policy usually has an impact on the transportation system.

"Transportation", then, is a complex field of endeavour that requires expertise in civil construction, operations, consumer behaviour, automotive technology, economic development, social development, finance and many other fields. This expertise comes from education and training, from ongoing research (in social and technological innovation, markets, etc.) and from methods for engaging the public (crowd-sourcing solutions).

There exist numerous knowledge gaps in the field of transportation, from cost-benefit analyses comparing various transportation modes, to understanding incentives for behavioural change, to the potential impacts of adopting new technologies, to undertaking gap analyses of transportation options.

Despite its critical importance to economic and social policy, the participants at the forum were unanimous in their opinion that not enough attention was being paid to transportation by policy advisors and decision-makers at all three levels of government. Departments of transportation at the Federal and Provincial levels, and most municipal governments were much more focused on maintaining existing infrastructure under their control ("fixing potholes") than they were on formulating a new regional vision³ for transportation in their jurisdiction, on developing a strategic plan to bring about the vision, and on implementing the vision. As well, too little attention was being given to emerging technologies (e.g., the connected car) or to the sharing economy (e.g., car sharing) - just two of a suite of disruptive innovations that are likely to cause major changes in the current transportation system.

The participants at the forum therefore suggested the following recommendations for consideration by the various levels of government in Atlantic Canada:

- 1. Bring added attention to the issue of transportation at all three levels of government, and reinvest in building the capacity of governments to adequately deal with transportation issues.
- 1.1. Apply a "transportation lens" to all government decisions, whether dealing with economic or social policy. Ensure that crown agencies (especially health boards) also apply this "lens".
- 1.2. Ensure that departments of transportation at all three levels of government have the appro-priate capacity for strategic planning, including knowledge of civil construction, operations, consumer behaviour, automotive technology, economic development, social development, finance, and related fields.
- 1.3. Monitor developments in transportation technology, the financing of transportation infra-structure, the sharing economy and other related trends, and ensure that legislation and regulations are able to adapt quickly to mitigate negative impacts and capture positive ones.
- 2. Build the capacity within government, academia, civil society and business to undertake re-

search on issues related to transportation.

- 2.1. Enhance the capacity of Memorial University of Newfoundland to undertake research on issues related to transportation by providing funding for research, by coordinating research on transportation from throughout the university, and by connecting university researchers with policy advisors and decision-makers.
- 2.2. Create working committees that combine the expertise of all levels of government, academia, business and civil society in addressing specific issues in the field of transportation (e.g., the impact of current regulations on the adoption of driverless vehicles, the impacts of commuting on health, etc.).
- 3. Create a Provincial Crown agency with a mandate to develop and implement a strategic plan at the level of census metropolitan area in the Northeast Avalon.

The plan would: garner a detailed understanding of the current situation; create a vision for an improved transportation system; and outline a series of actions to bring about the vision. The plan would take into consideration: technological innovations; trends in the sharing economy; demographic trends; commuting patterns; consumer preferences; impact on vulnerable populations; traditional and non-traditional sources of financing; innovations in civil construction: environmental and health impacts; etc.

³ "Regional" varied in scope depending upon the level of government.

The plan would include all modes of travel (ground, marine and air; private and shared; motorized and not; etc.) and would focus on access and interconnectivity. The plan would focus on travel patterns and not on administrative boundaries. And it would recognize the role of the Northeast Avalon as a service centre for surrounding rural areas.

The agency should include representation from all municipal councils in the CMA, as well as from appropriate non-governmental organizations and qualified citizens.

- 4. Review the operations of St. John's Metrobus to increase ridership and to assure equity for vulnerable populations
- 4.1. Expand the operations of Metrobus to the entire St. John's Census Metropolitan Area. Pay particular attention to connecting the suburbs (where housing is more affordable) to down-town and other major workplaces or attractions.
- 4.2. Increase interconnectivity with other modes of transportation: the airport, rural busses, and the trans-island bus service.
- 4.3. Review the route system to increase efficiency and reduce wait times, including using huband-spoke strategies, adopting various bus sizes, creating express bus routes, creating express lanes on the major arteries, etc.
- 4.4. Explore the possibility of

- providing 24-hour bus service to certain areas (e.g., malls, big-box stores, hospitals, etc.) to allow shift workers to use public transit.
- 4.5. Work with non-governmental organizations (e.g., Happy City) to change the attitudes of car owners and to encourage them to switch to public transit or to walking or biking.
- 4.6. Increase the attractiveness of the system by providing Wi-Fi on busses, installing GPS locators on busses (for real-time, on-line monitoring), etc.
- 5. Review the financing of transportation infrastructure to ensure fairness.
- 5.1. Review the manner in which airports are financed, with a view to removing or at least reducing the rents charged to airports. Bring the setting of airport rents under the authority of the Provincial Public Utilities Boards.
- 5.2. Extend the subsidy to Marine Atlantic from the current three years to ten years, to allow the Federal Crown agency to better plan its investments with a view to improving service.
- 5.3. Undertake an analysis of the true cost of parking in downtown areas, to ensure that drivers pay a fair share of the costs of providing parking infrastructure and with a view to increasing the use of public transit.
- 6. Encourage densification

- to reduce urban sprawl and the need to construct and maintain new transportation infrastructure.
- 6.1. Review development regulations to encourage more intensive use of urban land.
- 6.2. Encourage architects, landscape architects, engineers, urban designers, municipal regulators and others to exercise creativity in design, regulation, construction and maintenance of new developments, with a view to encouraging walking, biking and public transit.
- 6.3. Encourage walking and cycling in established neighbour-hoods by: creating pedestrian-only zones, walking trails, biking trails, reserved biking lanes on streets, secure bicycle parking spaces and other means.
- 7. Encourage a more intensive utilization of transportation assets.
- 7.1. Review and, where necessary, amend legislation, regulations and policies that inhibit the sharing economy, such as car sharing, bike sharing and carpooling.
- 7.2. Encourage organizations outside of the transportation sector but who own fleets of vehicles (e.g., governments and utilities) to make better use of these vehicles by sharing them more efficiently within their organization and even with other organizations.

- 8. Reinvestigate the need for a fixed link between Labrador and the Island of Newfoundland.
- 8.1. Incorporate the research undertaken for the Muskrat Falls Labrador-Island Transmission Link and advances in tunneling technology to recalculate the costs of creating a fixed link.
- 8.2. Upgrade the Great Northern Peninsula highway in order to bring it up to national standards.
- 9. Monitor innovations in transportation (whether technical, process or policy) with a view to improving the transportation system with regard to personal safety, environmental preservation, cost-effectiveness and convenience.
- 9.1. Monitor the development of connected vehicles (including self-driving vehicles) and make policy changes as necessary.
- 9.2. Develop a network of electric charge stations, taking advantage of surplus electricity generation at Muskrat Falls.
- 9.3. Provide discounts to motor vehicle registration fees for electric vehicles and create electric-only reserved parking spots (if possible, with charging stations).
- 9.4. Encourage governments, businesses and other organizations to adopt different office hours to reduce traffic congestion, and satellite offices and videoconferencing to reduce the need for com-

- muting and business travel.
- 10. Undertake an analysis of the provincial transportation system, with a focus on:
- 10.1. Interconnectivity of modes. Travellers should be able to move seamlessly among air, marine and ground, and among various modes of ground transportation (cross-town bus, long-haul bus, taxi, bike, etc.).
- 10.2. Accessibility for people with mobility handicaps. Persons with a mobility handicap should not be restricted to living only in dense urban areas where there are accessible busses, sidewalks with curb cuts, etc. Accessibility should be "pushed" to rural areas.
- 10.3. Vulnerable populations living in rural and remote areas. With the centralization of public services and many retail outlets, seniors, low-income individuals and others who do not possess and/or drive a car need to be able to travel without having to depend on relatives and without the cost being prohibitive.
- 11. Undertake an Atlantic-Canada-wide transportation strategy.
- 11.1. Review options for decreasing the costs of travelling by air to, from and within the region, including providing incentives to airlines to build markets so as to reduce the average cost per person.

- 11.2. Review multi-modal connectivity within the region with a view to facilitating the in-bound flow of tourists and the out-bound flow of long-distance commuters, including the movement of people between urban and rural.
- 11.3. Eliminate non-tariff barriers, such as technical standards for interprovincial motorcoaches.
- 12. Monitor the labour market for employment in the transportation sector.
- 12.1. Encourage new market entrants to consider employment in the field of ground transportation.
- 12.2. Monitor the impact of driverless vehicles on jobs in the transportation sector, and prepare to implement training programs for the maintenance of driverless systems at the post-secondary educational level.



11 APPENDICES

Appendix 1: List of Registrants to the Forum

Merv Andrews (Harris Centre Memorial University of Newfoundland)

Michael Bailey (Intelligent Transportation Systems Canada Toronto, ON)

Jessica Barry (Harris Centre Memorial University of Newfoundland)

Elizabeth Beckett (Atlantic Canada Opportunities Agency)

Mary Bishop (CBCL Ltd., St. John's)

Dan Bobbett (Town of Paradise)

Christopher Boone (Dillon Consult-

Christopher Boone (Dillon Consulting Limited)

Ryan Brain (Deloitte, Toronto)

Hon. David Brazil (Minister of Transportation and Works Goverment of Newfoundland and Labrador)

Brittany Brynes (Memorial Universi-

ty Students' Union)

Remo Bucci (Deloitte, Toronto)
Mike Clair (Harris Centre
Memorial University of Newfour

Memorial University of Newfoundland)

Angela Crockwell (Thrive, St. John's) Rodney Cumby (Town of Paradise) Glenn Davis (Atlantic Chamber of Commerce, Moncton, NB)

Christopher P. Dawson (Memorial University of Newfoundland)

Garrett Donaher (City of St. John's) **Councillor Ron Ellsworth** (City of St. John's)

Brian Flemming (Lawyer, Halifax) Bojan Furst (Harris Centre

Memorial University of Newfoundland)

Dr. Rob Greenwood (Harris Centre Memorial University of Newfoundland)

Gerry Gros (Town of Anchor Point) **Dr. Susan Hanson** (Clark University, Worcester, MA)

Kathy Hawkins (Independent Living Resource Centre St. John's)

Nancy Healey (St. John's Board of Trade)

Philip Helwig (Interested citzen, St. John's)

Tracey Hennessey (Transport Canada, St. John's)

Councillor Sandy Hickman (City of St. John's)

Grant Hiscock (Marine Atlantic Inc.) Fraser Howell (Department of Business, Tourism, Culture and Rural Development, Government of Newfoundland and Labrador)

Dr. Sandrine Jean (Department of Anthropology, Memorial University of Newfoundland)

Melodie Kelly (Poverty Reduction Strategy, Government of Newfoundland and Labrador)

Henry Kielley (Department of Seniors, Wellness and Social Develop-

ment, Government of Newfoundland and Labrador)

Allison Kouzovnikov (Shorefast Foundation, Halifax, NS)

Cheryl Lane (Town of Conception Bay South)

Councillor Dave Lane (City of St. John's)

Jeffrey Loder (Department of Business, Tourism, Culture and Rural Development, Government of Newfoundland and Labrador)

Marie Manning (St. John's International Airport Authority)

Jennifer McVeigh (Harris Centre, Memorial University of Newfoundland)

Heather Mills Snow (City of St. John's)

Scott Morton-Ninomiya (CarShareNL, St. John's)

Kerry Murray (NL Federation of Labour, St. John's)

Morgan Murray (Harris Centre

Memorial University of Newfoundland)

Hiroaki Nakashima (St. Mary's University, Halifax)

Kerry Neil (Department of Economics, Memorial University of Newfoundland)

Dr. Barb Neis (Department of Sociology, Memorial University of Newfoundland)

Alex Noel (Canadian Federation of Students)

Jean-Marc Picard (Atlantic Provinces Trucking Association)

Matthew Pinsent (Department of Transportation & Works, Goverment of Newfoundland and Labrador)

Susan Ralph (GoBus Accessible Transit)

Dave Reage (Halifax Transit)

Dion Regular (Spinal Cord Injury NL)

Esteban Ricalde-Gonzalez

(Faculty of Engineering & Applied Science, Memorial University of Newfoundland)

Jim Roche (Marine Atlantic Inc.)

Mr. Wayne Roebothan (Department of Business, Tourism, Culture and

Rural Development, Government of Newfoundland and Labrador)

Dr. Sharon Roseman (Department of Anthropology, Memorial University of Newfoundland)

Toby Rowe (Sustainability Office, Memorial University of Newfoundland)

Jamie Schwartz (Deer Lake Regional Airport)

Gail Tucker (Town of Portugal Cove-St. Philip's)

David Vardy (Harris Centre,

Memorial University of Newfoundland)

Jason Waters (Memorial University of Newfoundland)

Appendix 2: Schedule-at-a-Glance

The forum was divided into four half-days, each with its own theme. Each theme consisted of a keynote speaker, a panel of experts and an opportunity for conference participants to discuss possible recommendations to politicians and policy advisors. Each theme concluded with a plenary session where participants shared their recommendations with each other.

	TUESDAY, MAY 19
11:30 am	Registration and pre-luncheon reception
12:00 pm	Welcome and opening remarks Mike Clair, Harris Centre, Conference Chair

THEME 1:	ATLANTIC	CANADA	IN THE	GLOBAL	ECONOMY
Moderator:	Nancy Heal	ey, CEO, St.	. John's B	loard of Tra	de

This theme will look at the role of transportation in how Atlantic Canada is positioned in the global economy and examine questions such as how well is Atlantic Canada connected to the rest of the world? How easy (or difficult) is it for Atlantic Canadians to commute to work outside the region, or for long-haul tourists to tour the region? Why is it often more expensive to fly within Atlantic Canada than it is to fly from Atlantic Canada to Central Canada – and even to Europe?

12:30 pm	Luncheon and Keynote Presentation
	Ryan Brain, Deloitte (Toronto)
	Tourism and Travel: the new consumer in an increasingly important industry
1:30 pm	Panel discussion
	Carol Ann Gilliard, Hospitality NL (St. John's)
	Dr. Barb Neis, On the Move Partnership, Memorial University (St. John's)
	Jamie Schwartz, Atlantic Canada Airports Association (Deer Lake)
2:30 pm	Break-out group discussions (Bojan Furst, Harris Centre)
4:00 pm	Plenary report-back
4:30 pm	Wrap-up

THEME 2: THE SOCIAL AND EQUITY ASPECTS OF TRANSPORTATION Moderator: Mike Clair, Associate Director (Public Policy), Harris Centre

Transportation is an everyday means to accessing employment, education, healthcare and other services, but what about individuals without access to transportation? How do existing transportation options contribute to social inequity in Atlantic Canada? How might a renewed focus on finding transportation solutions promote the increased social inclusion of youth, women, immigrants, the elderly, persons living with disabilities, and those in lower income brackets? This theme will look at topics surrounding the role of transportation in addressing issues pertaining to social equity.

7:30 pm	Keynote Presentation
	Dr. Susan Hanson, Clark University (Worcester, MA)
	Rethinking Transportation
	Panelists
	Kathy Hawkins, Independent Living Resource Centre (St. John's)
	Kerry Murray, Newfoundland and Labrador Federation of Labour (St. John's)
	Dr. Sharon Roseman, On the Move Partnership, Memorial University (St. John's)
	Facilitator
	Dr. Rob Greenwood, Harris Centre
9:30 pm	Wrap-up

	WEDNESDAY, MAY 20
8:00 am	Registration, refreshments and networking
8:30 am	Welcome and introductory comments Mike Clair, Harris Centre, Conference Chair
8:40 am	Honourable David Brazil, Minister of Transportation and Works, Government of Newfoundland and Labrador

THEME 3: ECONOMIC AND POLICY ASPECTS OF TRANSPORTATION Voderator: Glenn Davis, VP (Policy), Atlantic Chamber of Commerce

Transportation is an integral component of many public policy issues, including economic development, affordable housing, healthcare, labor markets, and social equity. What are the roles of governments, non-governmental organizations, businesses and citizens in re-envisioning our future transportation system? How can various levels of government collaborate to better integrate transportation options at the local, sub-regional and regional levels? This theme will look at how improvements in transportation systems can play a role in addressing endemic issues within a variety of public policy areas.

9:00 am	Keynote Presentation Brian Flemming, Van Horne Institute (Halifax) The Political Economy of Canada's Transportation Policy in 2015: The "What" is Easy, the "How" is Hard
10:00 am	Panel discussion David Reage, Halifax Transit Garrett Donaher, City of St. John's Remo Bucci, Deloitte (Toronto)
11:00 am	Break-out group discussion (Dr. Rob Greenwood, Harris Centre)
12:00 pm	Plenary report-back

THEME 4: INNOVATING TRANSPORTATION Moderator: Tracey Hennessey, Regional Manager, Transport Canad

The field of transportation is fertile ground for technological innovation. From mobile apps that give realtime locations of public transit, to battery-operated cars, to driverless vehicles, to intelligent transportation systems that calibrate traffic lights and vehicle flows, there is an abundance of problem-solving creativity related to transportation. What new developments could be in store to improve our transportation system and how could these help solve some of the challenges we face today?

12:30 pm	Luncheon and Keynote Presentation Michael Bailey, Intelligent Transportation Systems Canada (Toronto) What is the Connected Car Connected To?
1:30 pm	Panel discussion Scott Morton-Ninomiya, CarShare NL Esteban Ricalde-Gonzalez, Memorial University (St. John's) Mary Bishop, CBCL Ltd. (St. John's)
2:30 pm	Break-out group discussion (Mike Clair, Harris Centre)
4:00 pm	Plenary report-back
4:30 pm	Closing comments Mike Clair, Harris Centre, Conference Chair

Appendix 3: Biographies of the Keynote Speakers



Hon. David Brazil Minister of Transportation and Works & Member for Conception Bay East-Bell Island (Government of Newfoundland and Labrador)

A graduate of Memorial University, CONA and York University, Mr. Brazil has been an independent business owner, has worked in the non-profit sector and has been a senior manager with the Provincial Government for the past 26 years. He has worked for the departments of Human Resources, Labour and Employment; Health and Community Services; Tourism, Culture and Recreation; Education and Municipal Affairs.

Mr. Brazil has extensive experience and knowledge particularly in dealing with issues related to employment, education, healthy lifestyles, tourism, youth and infrastructure. Very active in his community, Mr. Brazil has held many roles in various organizations, including as the Chair Conception Bay East-Bell Island PC District Association, Director of the Conception Bay East-Bell Island PC District Association, National Vice-Chair of the Boys and Girls Club of Canada, National Board member of the Movement for Canadian Literacy, Provincial President of Boys and Girls Club of Newfoundland and Labrador, Executive member of both the St. John's Jr. and Avalon East Sr. Hockey Leagues, Vice-Chair of the Avalon East Economic Development Board, and a Committee Member of Recreation NL. Mr. Brazil was re-elected to the House of Assembly on October 11, 2011.

In July, 2014, Minister Brazil was appointed Minister of Service NL., Minister Responsible for the Workplace Health, Safety and Compensation Commission, Minister Responsible for the Office of the Chief Information Officer, and Minister Responsible for the Government Purchasing Agency. On September 30, 2014, Minister Brazil was appointed Minister of Transportation and Works.



Ryan Brain CMC, MMSc, Deloitte (Toronto)
Theme 1: Atlantic Canada in the Global Economy

Ryan Brain is a Partner at Deloitte in Toronto and is responsible for the Consumer Business industry group across the Canadian firm, which includes Retail, Consumer Packaged Goods, Transportation, and Travel, Hospitality and Leisure sectors. Mr. Brain has very deep experience across a number of consumer businesses, working with organizations such as Air Canada, ALM Airlines, Air Transat, Ontario's Ministry of Tourism, Industry and Transport Canada, along with many others. Much of his work focuses strategy, market, and policy related matters in Canada. Mr. Brain is a frequent speaker and author, and has been referenced in a number of external sources on subjects across tourism and transportation. He is a Certified Management Consultant (CMC), and has his Masters of Management Science (MMSc) from the University of Waterloo.



Dr. Susan Hanson Distinguished University Professor Emerita, School of Geography, Clark University (Worcester, Massachusetts) Theme 2: Social and Equity Aspects of Transportation

Susan Hanson is an urban geographer with interests in transportation, gender and economy, local labor markets, and sustainability. Her research has examined the relationship between the urban built environment and people's everyday mobility; within this context, questions of access to opportunity, and how gender affects access, have been paramount. Her publications include The Geography of Urban Transportation and numerous journal articles and book chapters. She currently serves as Division Chair of the Transportation Research Board of the National Research Council and is an elected member of the National Academy of Sciences as well as the American Academy of Arts and Sciences. Her B.A. is from Middlebury College, and before earning the M.S. and PhD at Northwestern University, she was a Peace Corps Volunteer in Kenya.



Brian Flemming CM, QC, Van Horne Institute (Halifax) Theme 3: Economic and Policy Aspects of Transportation

Brian Flemming is one of Canada's leading experts on transportation policy. He was chair of the Canada Transportation Act Review Panel of 2000-1 and the principal author of Vision and Balance, regarded by many as the "bible" of Canadian transportation policy. Since 2001, he has written and given many articles and speeches on transportation policy. He is currently the only Senior Fellow at the Van Horne Institute in Calgary, Canada's foremost think tank on transportation issues. His most recent paper is "Automated Vehicles: The Coming of the Next Disruptive Technology" which he co-authored. He is a lawyer and lives in Halifax.



Michael Bailey M.Eng., P.Eng., FITE Intelligent Transportation Systems Canada (Toronto) Theme 4: Innovating Transportation

Michael Bailey has worked in the public and private sectors of the transportation industry for more than 35 years. During the past 19 years, Mr. Bailey has held a number of executive level positions with HERE (formerly NAVTEQ), a Nokia company that is a global leader in the mapping and location intelligence business. He presently holds global responsibility for development of best practices and technology deployment, supporting more than 3,000 personnel in Production Centres and Field Operations. Prior to joining NAVTEQ in 1996, Mr. Bailey was the Director of Transportation Policy and Planning for the Government of Prince Edward Island. He holds Master's and Bachelor's degrees in Engineering from the University of New Brunswick. He has served on the Executive and Boards of a number of prominent national and regional transportation sector organizations including the Transportation Association of Canada (TAC), the Institute of Transportation Engineers (ITE) and the Atlantic Provinces Transportation Commission (APTC). He is a Past Chairman of the Board of Directors of ITS Canada and has served on that board since the organization was established.



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