

Sustainable Cities

International Centre for Sustainable Cities (ICSC) Fall 2000

A sustainable transportation system is one that:

- *Allows the basic access needs of individuals and societies to be met safely and in a manner consistent with human and ecosystem health, and with equity within and between generations.*
- *Is affordable, operates efficiently, offers choice of transport mode, and supports a vibrant economy.*
- *Limits emissions and waste within the planet's ability to absorb them, minimizes consumption of non-renewable resources, reuses and recycles its components, and minimizes the use of land and the production of noise. (Centre for Sustainable Transportation).*

Transport Canada: For us this means... transportation activity in general must be sustainable on three counts - economic, environmental and social.

SUSTAINABLE TRANSPORTATION

In this Newsletter ICSC presents an overview of the movement towards sustainable transportation, drawing on our Canadian experience, work in the Georgia Basin, and in Poland. Just as cars dominate the thinking of urban planners and citizens, so too, motor vehicle issues dominate this newsletter.

A lively discussion about the whole complex relationship of transportation, the environment, the economy, urban planning, community building, and social equity has emerged and crystallized around the concept of "sustainable transportation." The concept has been easier to discuss than to define. Most describe sustainable transportation in terms of decreasing dependency upon cars and fossil fuels and increasing the share of transport undertaken by train, bus, bicycle and foot. They promote integrating transportation and land use planning in order to diminish the need for travel and point to political, economic and behavioral changes that must be addressed.

How does one begin to move a city or a region in the direction of sustainable transportation? Certainly it will take new technologies to reduce energy consumption and pollution, especially in the short term. It will take educational and marketing efforts to persuade city dwellers to change some of their transportation thinking and habits. And, it will necessitate changing the ways we design cities and their transportation systems to facilitate sustainability.

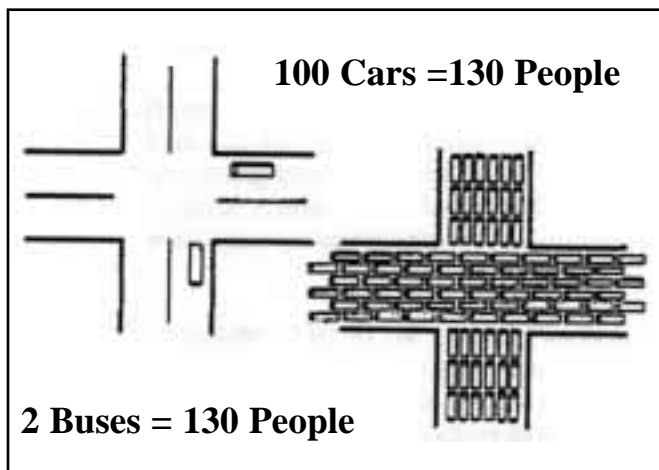
Most importantly, it will take visionary leadership from the governmental, business, and civic sectors. It will necessitate a commitment on the part of each of these sectors to design plans of action. And it will take stamina and determination to turn processes into policies, policies into plans, plans into projects, and projects into measurable and enduring progress.

THE SPECTRUM OF SUSTAINABLE TRANSPORTATION

The discussion of sustainable transportation can be seen as a spectrum with the OECD and NRTEE definitions and principles, around which there is broad consensus, as anchoring the middle.

At each end of the spectrum are arrayed interests who tend to advocate a narrower approach to sustainability in transportation. At one end of the spectrum are those who choose to emphasize technological approaches (Amory Lovins, Lee Schippers, Daniel Sperling, David Greene). They believe that a low or no emissions fuel-efficient computer guided "Hypercar" or alternative fuels can solve most of the problems associated with personal transportation. At the opposite end of the spectrum are those, like Adbusters (Kalle Lasn) who see transportation as a reflection of deep cultural problems which afflict contemporary American society and can be solved by "culture-jamming," or overthrowing the advertising-consumption paradigm.

Between this end of the spectrum and the middle are a number of interests advocating the redesign of cities, including the taming of the automobile and the calming of traffic, in order to reduce motorized travel and encourage healthier travelers--such as walkers and bicyclists, and communities. In this range are the Australian researchers Peter Newman and Jeffrey Kenworthy whose seminal work has defined the discussion of urban sustainability versus automobile dependency, and the important work done through the Wuppertal Institute (www.wupperinst.org) about the need to reduce travel and its energy intensity, for passengers as well as freight.



OECD PRINCIPLES

One of the leading forces in efforts to define sustainable transportation as well as advance its research and policy agenda has been the Organisation for Economic and Cooperative Development (OECD) a planning and research agency supported by the 21 most developed nations. The OECD's definition of Environmentally Sustainable Transportation (EST) is:

"Transportation that does not endanger public health or ecosystems and meets needs for access consistent with (a) use of renewable resources at below their rates of regeneration, and (b) use of non-renewable resources at below the rates of development of renewable substitutes."

Canada's National Round Table on the Environment and the Economy (NRTEE) worked with the OECD in the development of the Sustainable Transportation Principles. These include:

1. Access--people are entitled to reasonable access to other people, places, goods and services
2. Equity--social, interregional and inter-generational equity should be ensured and the basic transportation needs of all people including women, the rural and the disabled should be met.
3. Individual and Community Responsibility--all should act as stewards of the natural environment and make sustainable choices about personal movement and consumption.
4. Health and Safety--transportation systems should protect the physical and mental health and social well-being and safety of all people and enhance the community's quality of life.
5. Education and Public Participation--people and communities need to be fully engaged in the decision-making process about sustainable transportation, and empowered to participate.
6. Integrated Planning should be pursued in transportation decision-making.
7. Land and Resource Use--communities should be designed to enhance access and encourage sustainable transportation which must make efficient use of land and natural resources while preserving the natural environment.
8. Pollution Prevention--transportation needs must be met without generating emissions that threaten public health, global climate, biological diversity or the integrity of essential ecological processes.
9. Economic Well-Being--taxation and economic policies should work for sustainable transportation and market mechanisms should support fuller cost accounting of the true social, economic, and environmental costs to ensure that users pay an equitable share. At present, these costs are generally "externalized" or passed on to others rather than being paid for or "internalized" by those who create these social and environmental burdens.

For further information see web site www.oecd.org/env/ccst/est/

THE VIEWS OF A LOCAL POLITICIAN

A clear description of the dilemmas facing local government has been compiled by City of Vancouver Councillor Gordon Price as "A Local Politician's Guide to Urban Transportation ". Price, a Director of TransLink--the region's transportation and transit agency deftly analyzes the many factors which have gotten us into our current traffic jam: the selling of the car culture; the predominance of highway-building engineers in transportation planning; the subsidization and under-pricing of transport; the neglect of public transportation, walking, and bicycling; the latent demand for road space which is triggered by road expansions; the oversupply of free or cheap parking, etc.. He recommends that cities not try to solve the problem of traffic congestion by road capacity expansions. For thirty years now the City of Vancouver has built little new capacity for the car. Yet the result of limited capacity and expensive parking has been by general agreement one of the most livable cities on the continent. This is not a coincidence. "

The paper concludes with a set of ideas about solutions - maximum desirable capacity, intelligent transportation systems, economic incentives, transit, urban design and offering increased choices to the public.



Most developed nations are already heavily dependent on automobiles and trucks for significant aspects of their economy and mobility. The production and servicing of the automobile accounts for about 15 to 20 percent of the United States' economy and 35 percent of Canada's. In North America, between 30 and 60 percent of the urban area is devoted to moving and storing motor vehicles.

A Local Politician's Guide to Urban Transportation, by Councillor Gordon Price

(selected quotes)

"Careful, you may run out of planet." - ad for a sport-utility vehicle

Pity the politician who promises to fix the urban transportation problem. Traffic congestion may be their constituents' constant frustration, but given the resources and policy levers available to local government, there's only so much that can be done, and it's not nearly enough.

Voters, want their infrastructure carrots before the fiscal sticks. Yet given the nature of our vehicle-based transportation system, with continually expanding demand, concrete solutions are often temporary or ineffectual - and staggeringly expensive. A billion dollars isn't much in the transportation game.

Politicians intuitively appreciate that transportation policy is rooted in feelings. Feelings about our cars, feelings about our homes and neighbourhoods (places made possible by the car), and feelings (often guilt or frustration) about the consequences of our choices. ...Individuals can hold completely contradictory views about the automobile, depending on whether their point of view at the time is personal or collective.

Nothing so well represents the contradiction as the rise of the SUV (Sports Utility Vehicle). At a time when society is supposedly concerned about air quality, traffic congestion and road safety, why did we suddenly start buying bigger, more polluting and more dangerous cars? Possibly because the decision to buy was made by individuals, pursuing their own self-interest, with no constraints or considerations at the time of sale as to the collective consequences... Advertising played a critical role: it positioned the SUV as an 'environmental' vehicle, able to get people closer to the outdoors and natural environment.

Advertising, that most powerful of influences, markets mobility and freedom. We see the most beautiful images of the car on the open road. Those ads sell many things - freedom, power, individuality, success and youth - but every ad reinforces one big idea: the car is never constrained by an excess number of other cars. You never see the car caught in congestion.

We are confronted with a dilemma of our own making: limited resources, infinite demand. The only realistic tool we have - congestion - is seen as the problem, not as a necessary consequence. Those who benefit don't proportionately pay, and don't want to. We look for rational solutions for a problem largely emotional in character. We talk limits but we avoid action.

TransLink

The Greater Vancouver Regional District (GVRD) is one of the fastest growing regions in North America. For several decades it has been establishing regional governance mechanisms to effectively incorporate land use, air quality, and transportation planning and implementation. Its transformation are presented in a 1999 paper by George Puil, City of Vancouver Councillor and Chair, and his associates Ken Cameron and Clive Rock.

In 1990 the GVRD, the forerunner of TransLink had undertaken a process resulting in an impressive vision and action plan, *Creating Our Future*:

"Greater Vancouver can become the first urban region in the world to combine in one place the things to which humanity aspires on a global basis: a place where human activities enhance rather than degrade the natural environment, where the quality of the built environment approaches that of the natural setting, where the diversity of origins and religions is a source of social strength rather than strife, and where the basics of food, clothing, shelter, security and useful activity are accessible to all."

The Vision was followed by a long-range and medium-range comprehensive land use and transportation plan, the *Livable Region Strategic Plan*, that was adopted by the GVRD in 1996.

In 1997, negotiations began with the Province of British Columbia and resulted in the creation of a new authority, the Greater Vancouver Transportation Authority (subsequently renamed "TransLink") which is authorized "to plan, develop and operate urban transportation services in--specifically transit, a major road network, transportation demand management services and vehicle emission control services." TransLink has been given access to several existing traditional revenue sources (such as provincial fuel taxes) and to a wide range of emerging transportation-related revenues that could encompass vehicle charges, tolls, road pricing, and parking taxes. This sort of governance consolidation and diversified funding related to transportation use and impact is necessary for planning and implementing sustainable transportation.

ICSC considers this unique combination of responsibilities, authority and funding to be on the forefront of sustainable transportation initiatives in the Western world.

Translink www.translink.bc.ca
Greater Vancouver Regional District www.gvrd.bc.ca

Fraser Valley Regional District (FVRD)

Immediately east of the Vancouver region is a beautiful area of mountains, rivers, and agricultural valleys located in the Fraser Valley Regional District (FVRD). Much of the population lives in towns and rapidly growing small cities, such as Abbotsford, Mission, Chilliwack and Hope, along the major highways which parallel the majestic Fraser River.

Between the years 1997 and 2000 ICSC assisted the FVRD to develop the Region's first long-range growth strategy under a set of sustainability objectives set forth by the region itself. ICSC helped manage, produce and find funding for parts of the technical work program and coordinated two working papers by external consultants on infrastructure and energy and on the environment.

A third working paper outlining a 20 to 30 year transportation strategy for the FVRD was produced by ICSC internally. Written by Martin Crilly, an Associate of ICSC (and its former Executive Director), the paper addresses the fundamental challenge faced by the region's transportation system--to support a projected doubling of the Region's population and a more-than-doubling of employment in the next 20 to 30 years.

The "*FVRD Long Range Transportation Strategy*" boldly outlines structural shifts which could help move transportation away from heavy dependence on automobiles to more balanced transportation: from dispersed to compact development, to more balance between jobs and housing, and to more stable and use-related forms of transportation financing. The Strategy calls for some operational improvements to the existing road network, such as better turning and passing lanes, and a little widening of a few existing routes, but: "An important conclusion of this report is that construction of major new long-distance highway links (as opposed to widening existing roads) in the FVRD is not warranted."

An important goal of the strategy is to relieve people from their present degree of dependence on cars" through significant improvement in public transportation, as well as an array of financing, "travel smart" (Transportation Demand Management) and public education tactics aimed at reducing solo driving.

Exemplary Policies and Initiatives

The Ottawa-Carleton Regional Transit Commission--OC Transpo has been playing a leadership role in a transportation tax reform measure in Canada to promote wider use of transit for commuters and save transit commuters considerable taxes. It would reform current federal tax policy by declaring employer-provided transit passes a tax-exempt benefit and thus be on par with commuters who receive parking as a tax-free benefit.

According to research by Prof. Donald Shoup free or cheap parking at the workplace is the greatest single factor affecting the decision to drive alone to work. Another transit-friendly innovation is "Parking Cash-Out", whereby employers begin to charge for parking at the work site and use those revenues to support transit passes and benefits for employees who bicycle to work. See www.octranspo.com.

Exemplary Projects and Ideas

One tool for making urban transportation more sustainable is the development of car-sharing or car co-ops (cooperatives) so that persons who only need a motor vehicle for occasional trips do not have to bear the burden of car owner expenses--and cities don't have to bear so many of the burdens of space consumption by automobiles. Car co-ops modeled on successful European examples like those in Switzerland and Berlin's StaatAuto ("instead of a car) are springing up from Montreal, to Vancouver to Eugene, Oregon. One of the "gurus" of car co-ops, Conrad Wagner, who is also a leader in the promotion of small and extremely energy efficient cars for co-ops has now brought his experience and expertise from Switzerland to North America. See www.smartontheroad.com

Appropriate Technologies

- Crosswalks which become illuminated with flashing lights when pedestrians enter are helping to alert motorists to slow down at night.
- Bicycles, are coming in more models. Recumbent bicycles, where the cyclist sits lower to the ground are becoming more widely available and affordable. Bicycles with 21 or more gears help in climbing hills. Electric power-assisted bicycles are also becoming more widely available and affordable. The battery-powered bicycle make climbing hills even easier or allow the average cyclist a little more speed with a little less effort.

The Vancouver region is a veritable hotbed of innovation in alternative fuels development and technologies.

- Ballard Power Systems is becoming internationally famous for the development of fuel cells for transit vehicles.
- Dynamotive Technologies Corporation is developing "BioOil," a fuel less polluting than gasoline or diesel from biomass and agricultural wastes.
- Westport Innovations, Inc., is establishing its High Pressure Direct Injection (HPDI) technology as the leading approach for converting diesel engines to operate on natural gas.
- The GLOBE series of Conferences and Trade Shows held in Vancouver in March every second year provide an opportunity to learn about such innovative products and processes. See www.globe.ca.

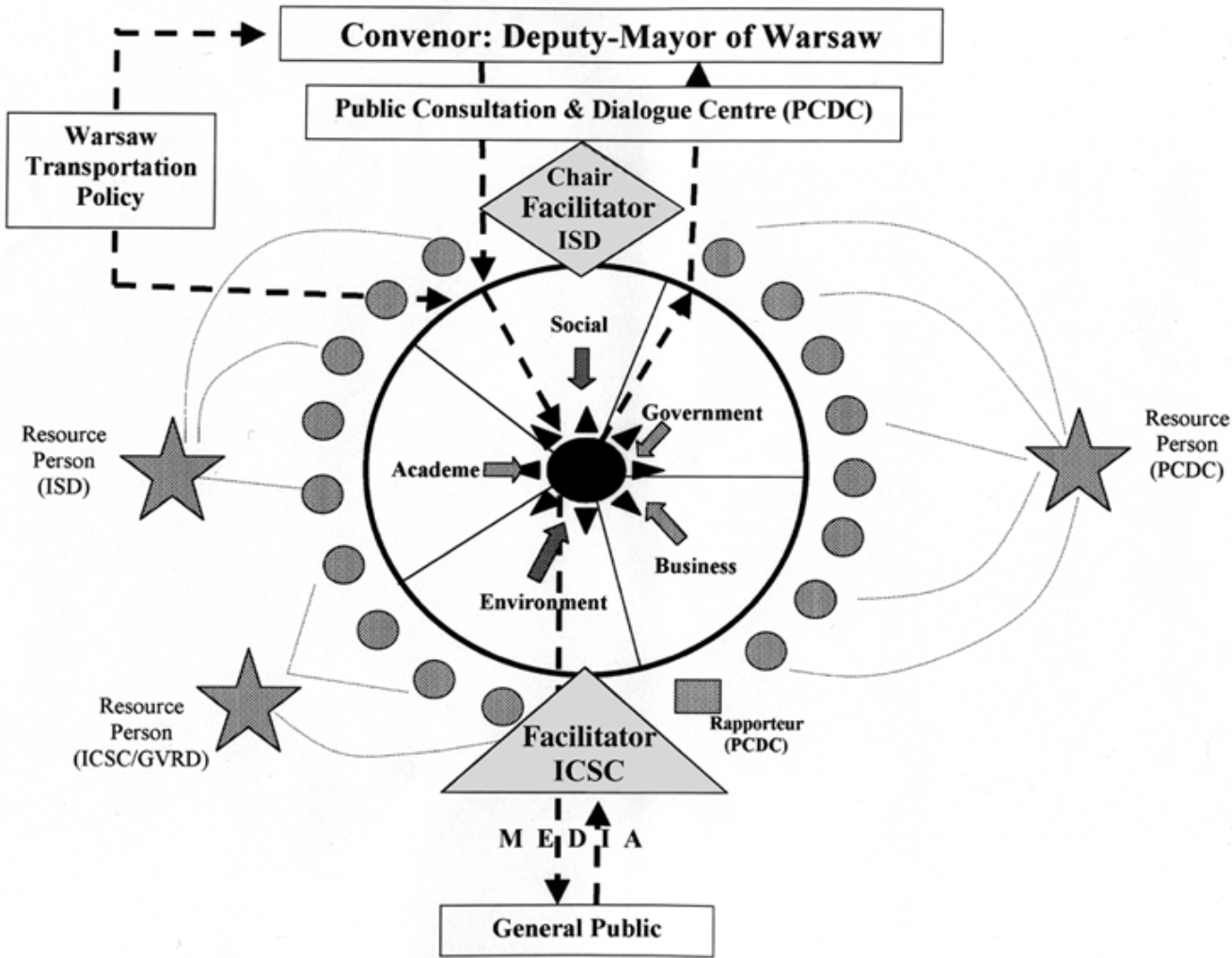
(Un) Sustainable Transportation Index

(with apologies to Harper's Magazine)

Number of cars per thousand residents, City of Seattle:	1,040
Number of cars per thousand residents, City of Portland (OR)	1,040
Number of cars per thousand residents, City of Vancouver	560
Annual total car travel (kms) per capita, City of Seattle	12,556
Annual total car travel (kms) per capita, City of Portland	11,498
Annual total car travel (kms) per capita, City of Vancouver	5,950
Transit trips per capita per year, Greater Seattle Region	38
Transit trips per capita per year, Greater Portland Region	52
Transit trips per capita per year, Greater Vancouver Region	119
Per cent of trips to work on transit, Seattle Region	6.0
Per cent of trips to work on transit, Portland Region	5.8
Per cent of trips to work on transit, Vancouver Region	12.4
Per cent of trips to work on foot or bicycle, Seattle Region	5.5
Per cent of trips to work on foot or bicycle, Portland Region	3.9
Per cent of trips to work on foot or bicycle, Vancouver Region	5.7

(Source: Newman & Kenworthy, 1999; Schiller & Kenworthy, 1999)

Warsaw Transportation Round Table - Conceptual Framework



The Maluch Love Affair

The Polish love affair with the car began many years ago. In an attempt to earn hard currency in the 1970s and to appease the desire of many Poles to own a car, the communist government made a deal with Fiat to make the Polski Fiat 126. Known as the "Maluch" (meaning "toddler"), the car has often been ridiculed as a "tin matchbox on wheels"; it did however manage a feat no other vehicle could - it put the Polish masses on the road. This "roller skate for elephants" however is soon going to go out of production. Now the Poles are desirous of more than just individual mobility and want bigger and more powerful cars. The challenge for the present regime will be to find the balance between cars and other forms of transportation.

Climate Change

Canada's Transportation Table

The transportation sector accounts for about a quarter of Canada's Green House Gas emissions. In response to the Kyoto Protocol, Canada undertook a national process for developing a climate change strategy. This process established 16 Issue Tables, including a Transportation Table, co-chaired by Transport Canada. The multi-stakeholder table commissioned 25 studies to examine GHG reduction in the transportation sector and came up with an Options Paper identifying over 120 specific measures to reduce GHG emissions. Consultations were held on the Options Paper and the results may be viewed on Transport Canada's web-site (www.tc.gc.ca/envaffairs)

TRANSPORTATION ROUND TABLES

Since the late 1980s, when Poland began its transformation to a more democratic and market system, investment in public transportation systems has decreased and private automobile ownership has increased dramatically. For example, private car ownership in the Capital City of Warsaw is about 370 cars per 1000 inhabitant - numbers similar to many Western European cities. This is alarming when compared to 1980s level which were closer to 150 cars per 1000 inhabitants. Conversely public transit users have declined in Warsaw from 90% in 1970 to 66% in 1998. As a consequence longer rush hours and more frequent traffic jams are now common in Warsaw and many other cities in Poland. In addition, much of the rolling stock of the public transit system has not been replaced in decades and has thus become unreliable due to decreasing public transit budgets and lack of sufficient investment.

Acknowledging that complex urban transportation problems cannot be addressed by any one organization or institution, several local governments in Poland have decided to use a "Canadian style" multi-stakeholder or Round Table process to help address their urban transportation problems. ICSC has partnered with the Institute for Sustainable Development (ISD) in collaboration with the City of Warsaw's Public Consultation and Dialogue Centre to create the Warsaw Transportation Round Table (WTRT). As one of the first initiatives of its kind in Poland, the WTRT's mandate is to make recommendations to the Deputy Mayor, which are arrived at using a consensus based decision-making process. The WTRT is composed of seventeen members representing five sectors - business, environment, government, academia and civil society.

To date the WTRT process has been highly successful. In February 2000, the three Deputy Mayors responsible for transportation issues in Warsaw convened a meeting to present the Round Table concept to representatives from almost one hundred transportation stakeholder groups. At this meeting, City officials asked that stakeholders select the seventeen people from the stakeholder groups to represent the five WTRT sectors. In late May 2000 the issue of "Traffic Zoning in Warsaw" was discussed during the first set of Round Table sessions. After four full day meetings, the seventeen Round Table members agreed, by consensus, on a set of recommendations. The recommendations focused on issues including parking, speed limits, public transportation, and priority for pedestrians and bicycles and were presented by the Round Table members to the Deputy Mayor at a well attended press conference.

While it is too early to tell how these recommendations will be implemented in Warsaw, there is already evidence that the Round Table process itself is improving the decision-making process by increasing communication and understanding between different sectors. Moreover, by building the capacity of the local government to use decision-making processes that involve greater stakeholder involvement, the likelihood of arriving at better and more publicly acceptable decisions is increased. The WTRT stands as a good example for other cities of a more transparent and democratic decision-making process that engages the public.



RESOURCES AND TOOLS

Books:

Peter Newman and Jeffrey Kenworthy: *Sustainability and Cities: Overcoming Automobile Dependence*. Washington, DC; Island Press, 1999. The Dynamic Duo from Down Under have followed their groundbreaking *Cities and Automobile Dependence: An International Sourcebook* (Brookfield, VT; Gower; 1989) with a work which greatly furthers our empirical, theoretical, ecological and ethical understanding of urban form, transportation systems and civic responsibility.

Sue Zielinski and Gordon Laird (eds.): *Beyond the Car: essays on the auto culture*. Steel Rail Publishing/Transportation Options, Toronto, 1995. Engaging essays ranging from transportation history to economics, cities and towns, children and safety, and bicycling.

Elmer Johnson: *Avoiding the Collision of Cities and Cars*. American Academy of Arts & Sciences, 1993. A senior partner in the powerful corporate law firm of Kirkland & Ellis, and former Executive Vice President and Director of General Motors Corporation, sharply questions the current role of the automobile in urban society.

Alan Thein Durning: *The Car and the City, 24 Steps to Safe Streets and Healthy Communities*. Northwest Environment Watch, Seattle, WA. A very useful short book about cars, cities, sprawl, politics, and getting the price of transportation right. Covers both sides of the Canadian-American border.

Articles & Documents

- Gordon Price, "A Local Politician's Guide to Urban Transportation." available from gordon_price@city.vancouver.bc.ca

- Preston L. Schiller and Jeffrey R. Kenworthy, "Prospects for Sustainable Transportation in the Pacific Northwest: A Comparison of Vancouver, Seattle, and Portland." *World Transport Policy and Practice*, Vol 5, No. 1, 1999 pp. 30-38.

- Stefanie Böge, "The well-travelled yogurt pot: lessons for new freight transport policies and regional production," *World Transport Policy and Practice*, Vol. 1, No. 1, 1995, pp. 7-11.

- Donald C. Shoup, *Cashing Out Employer-Paid Parking*. Office of Technical Assistance and Safety, Federal Transit Administration, U.S. Department of Transportation, 400-7th St. SW, Washington, DC 20590, Dec. 1992

- Eric C. Bruun, and Vukan Vuchic, "The Time-Area Concept: Development, Application, and Meaning," *Transportation Research Record 1499*, Transportation Research Board, National Research Council, Washington, DC, 1995, pp. 95-104.

- Eric C. Bruun, and Preston L. Schiller, "How cars devour urban space and time," *Urban Transport International*, No.5, May-June 1996.

Videos

Public Transit and Liveable Communities documents a community-based design workshop sponsored by the City of Ottawa to address issues of improving community transit connections and station design. (20 mins.) From: Transport 2000 Canada; 111 Sparks St. suite 102, Ottawa, Ontario, Canada, K1P 5B5

2040--A Message from the Future explores a future where the viewer looks back at the demise of the auto age and finds striking parallels between the Auto Age and the Pyramid Age! (26 mins.) From: Australia Council for the Arts/David Engwicht Communications, 181 Lawson St., Melbourne 03, Australia

Taken for A Ride powerfully documents the successful effort by the auto, oil and highway interests to destroy urban rail transit lines across the U.S. in the 1930s and 1940s. It also includes a discussion of highway building and of civic battles against urban freeway expansion in San Francisco and Washington, D.C. From: New Day Films, 314 Dayton St., Yellow Springs, OH, 45387, U.S.A.

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Preston L. Schiller, Ph.D. is the guest editor for this edition of the ICSC newsletter. He is Adjunct Faculty in the Center for Canadian-American Studies and Huxley Environmental College, Western Washington University and the principal author of Green Streets, the 1991 Intermodal Surface Transportation Efficiency Act and the Greening of Transportation Policy in the United States, and co-author of Re-Thinking HOV: High Occupancy Vehicle Facilities and the Public Interest. He can be reached by mail at 508 Wilson, Bellingham, WA 98225, by e-mail at preston@cc.wvu.edu or by telephone at (360) 756-8726.

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Those interested in working with ICSC to pursue sustainable transportation projects are invited to contact us at info@icsc.ca, or by telephone at 1 (604) 666 0061 or fax at 1 (604) 666 0009.



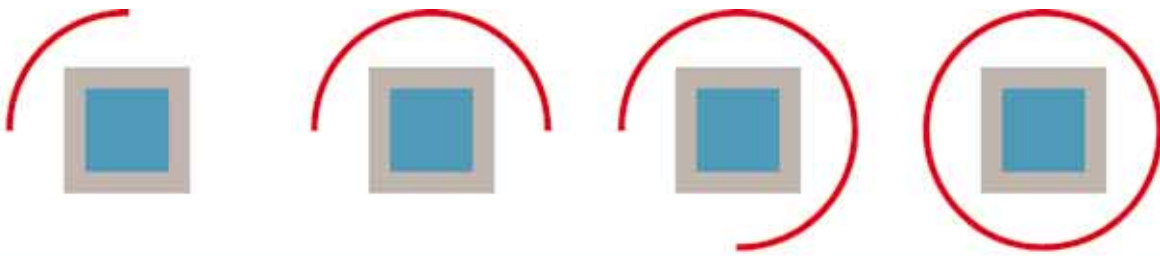
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Sustainable Cities

International Centre for Sustainable Cities (ICSC)

Broker's Job

ICSC's roles and responsibilities as a broker coordinating partners in urban sustainability projects.

- *Sit down with host city to identify priorities and specific projects to meet them*
- *Match qualified providers of technical expertise, technologies and equipment to the project if they are not available from the city*
- *Introduce sources of funding (aid agencies, international financial institutions, charitable donors, where it is necessary to add to the cash resources of the city) and assist the city to secure funding*
- *Find private sector and other partners, define their roles and terms of participation*
- *Build trust and personal relationships (aided if the broker is a not-for-profit organization, working with open and audited account book)*
- *Systematically spot and prompt the next steps forward*
- *Receive and disburse funds under written contracts with each party*
- *Cover its costs through a modest management or handling fee levied as funds pass through the brokers hands.*

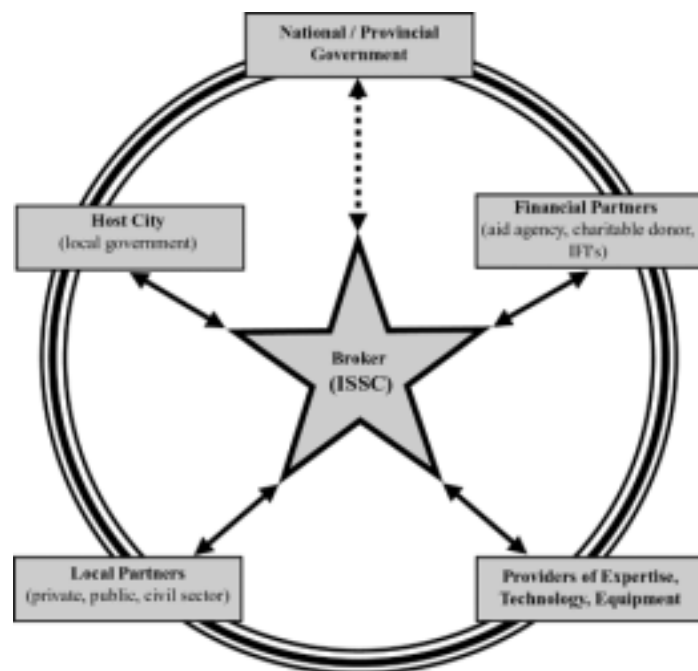
MISSION:

ICSC's mission is to promote sustainability in cities around the world through practical demonstration projects using Canadian expertise and technology.

Successful urban sustainability projects demand close collaboration among many groups. A middleman can bring the parties together and produce tangible results quickly.

In the seven years since starting operations, ICSC has worked with a variety of groups, forging both informal and contractual links. In the process, ICSC has emerged as a middleman helping to ensure that projects move forward. The links join all levels of government, providers of know-how and equipment, lenders and equity investors, aid agencies, NGOs, and the public at large under a general "brokerage model". Participating organizations radiate like spokes in a wheel, crossing international, cultural and language barriers.

ICSC's Broker Role



ICSC

ICSC serves as a knowledgeable broker applying Canadian experience and technology to the needs of cities around the world. ICSC works with cities to identify their transportation challenges, then we build teams from the private, public and civil sectors to address those problems. ICSC defines the civil sector broadly to include more than NGOs (non-governmental organizations). For example, it may include representatives of academic and research institutions, churches, informal community groups or those from indigenous or minority populations. Each situation is unique and each team is tailored to the particular needs of the local government.

ICSC'S TEAM ON SUSTAINABLE TRANSPORTATION

Those listed below are ICSC's Canadian based partners on issues related to Sustainable Transportation. When we are approached by a client to work on transportation issues, we look first to these groups. If we cannot find the expertise, equipment or technologies among them, we expand our search using our networks of Associates throughout Canada and abroad.

Private Sector Partners

All of ICSC's private sector partners are explicitly committed to advancing sustainability in policy and in practice.

IBI Group

www.ibigroup.com

In the field of transportation, IBI Group provides a full range of services related to the movement of people, goods, and information within and between facilities. They cover all modes of transportation including urban and inter-urban road, transit, rail air, and marine. Through the application of technology and information, IBI Group offers intelligent transportation and advanced public transportation solutions to efficiently manage and operate transportation systems. Neal Irwin, Managing Director and a founder of IBI Group, is a Director of ICSC.

AMEC Earth and Environmental

www.amec.com

AMEC provides consulting and engineering services to the North American and international transportation industry. Their services cover a full range and apply to every phase of the planning, construction, inspection and renovation of roads, highways, bridges, tunnels, railways, and airfield surfaces. ICSC has worked closely with AMEC E&E in Poland and in China.

Bombardier Transportation

www.bombardier.com

Bombardier Transportation, a world leader in the manufacturing of passenger rail cars, offers a full range of urban, suburban and inter-city vehicles as well as complete rail transit systems worldwide. It also manufactures freight cars and provides operations and maintenance services. Bombardier Transportation's expertise is well demonstrated in its Advanced Rapid Transit (ART) system used in Vancouver's SkyTrain and in other cities around the world.

CH2M Canada (CH2M Gore and Storrie)

www.ch2m.com

CH2M Hill is a global project delivery company focused on sustainable infrastructure and environmental technology projects. CH2M Canada is taking the lead for the company on promoting sustainable development. In the transportation sector CH2M provides a full spectrum of services for the transportation industry, including airports/aviation and aerospace, bridges, highway systems, ports/intermodal/rail systems, light rail and transit systems, toll and revenue producing facilities. Nic Sonntag, CEO of CH2M Canada is a Director of ICSC.

Reid Crowther

www.reid-crowther.com

Reid Crowther, a multi-discipline engineering company, has worked with both private enterprise and public agencies to develop innovative and sustainable solutions to moving goods and people. Leaders in transportation engineering worldwide, Reid Crowther provides services in areas that include planning and designing urban free-ways, transportation structures, rapid transit systems, Intelligent Transportation Systems, marine, airport and railway facilities, and maintenance and rehabilitation for transportation infrastructure. ICSC works closely with Reid Crowther in South East Asia.

Public Sector Partners

TransLink

www.translink.bc.ca

In 1997 The Greater Vancouver Transportation Authority (TransLink) was formed to plan, develop and operate urban transportation services. More specifically, Translink provides transit, support for major road networks, transportation demand management services and vehicle emission control services. City of Vancouver Councillor Gordon Price is a Director of TransLink and a member of ICSC.

Greater Vancouver Regional District (GVRD)

www.gvrd.bc.ca

The GVRD has been at the forefront of sustainable urban development in Canada and in the Georgia Basin for the past decade. In 1990, the GVRD used a multi-stakeholder process to develop a statement of its vision and an action plan, *Creating Our Future*. In 1996 it used a similar process to create a comprehensive land use and transportation plan, the *Livable Region Strategic Plan*. Johnny Carline, the Chief Administrative Officer and Ken Cameron, Director of Policy and Planning for the GVRD were key forces behind the strategy, along with former premier Mike Harcourt and former Mayors, Bob Bose and Beth Johnson. Ken Cameron is Chair of ICSC, Mike Harcourt is Vice Chair, Johnny Carline is a Director, and Bob Bose and Beth Johnson are members of ICSC.

Fraser Valley Regional District (FVRD)

Lying east of the GVRD is the FVRD, a region that includes the cities of Abbotsford, Chilliwack, Hope, and Mission. *The FVRD's Long Range Transportation Strategy* outlines structural shifts that could help move transportation away from heavy dependence on automobiles to more balanced transportation; specifically from dispersed to compact development, to more balance between jobs and housing, and to more stable and use-related forms of transportation financing. The report was authored by ICSC's former Executive Director and current Associate and member, Martin Crilly.

OC Transpo

The Ottawa-Carleton Regional Transit Authority - OC Transpo - is the exclusive provider of public transit in the Regional Municipality of Ottawa-Carleton and operates charter services in the National Capital Region. OC Transpo has long been recognized as a leader in the public transit field. Its ridership levels are the highest among mid-sized North American cities, and its innovative Transitways, a dedicated system of bus only roadways, have allowed the cost-effective introduction of rapid transit services throughout the region. Gordon Diamond, OC Transpo's CEO is a member of ICSC.

The Government of Canada

Environment Canada, Transport Canada, Natural Resources Canada and Industry Canada are all intimately involved with sustainable transportation issues within the country. ICSC works with these departments; and the Canadian International Development Agency (CIDA) and the Department of Foreign Affairs and International Trade (DFAIT) on international projects. ICSC facilitates exchanges between Canadian public officials and their counterparts in other countries. Environment Canada, Industry Canada and DFAIT name representatives to ICSC's Board of Directors.

The Province of British Columbia

The Province of British Columbia is a strong leader in the field of land use planning (implementing agricultural land reserves and pioneering regional growth strategies with municipalities), transportation planning (with its Clean Vehicles and Fuels Program and Translink) and environmental programs including programs to encourage a strong environmental technologies sector. It makes effective use of multi-stakeholder and public participation processes. The province names a member to ICSC's Board of Directors. The Minister of the Environment, the Honourable Joan Sawicki, is a former Director and a current member of ICSC. Mike Harcourt, the former Premier of British Columbia is currently ICSC's Vice Chair.

Civil Sector Partners

Canadian Urban Institute (CUI)

www.canurb.com

ICSC's sister organization in English speaking Canada is the Canadian Urban Institute. CUI is a non-profit institute dedicated to enhancing the quality of life in urban areas in Canada and internationally. Internationally, CUI focuses on capacity building, with particular interest in financial issues, economic development, strategic planning, governance and public participation. Domestically it is a policy oriented think tank. It has engaged the public in an effort to reconsider the use of the private automobile in Canada's larger centres. CUI and ICSC work together on projects in the Philippines and in Central and Eastern Europe.

Victoria Transport Policy Institute

www.vtppi.org

The Victoria Transport Policy Institute is an independent research organization dedicated to developing innovative and practical tools for solving transportation problems. They provide a wide range of studies, guides and software, most available free at their web site (www.vtppi.org). These materials can bridge the gap between theory and practice for urban transportation issues. ICSC uses its materials and cooperates with VTPI to influence the transportation policies within the Georgia Basin.

University of British Columbia

CHS Centre for Human Settlements (CHS)

www.chs.ubc.ca

CHS conducts multi-disciplinary research and capacity-building programs related to regions, urban and community development. They, along with SDRI have recently announced the creation of the Bombardier Chair in Sustainable Transportation.

University of British Columbia SDRI Sustainable Development Research Institute (SDRI)

www.sdri.ubc.ca

SDRI fosters research on sustainable development issues that is policy-relevant, interdisciplinary and involves non-academic partners. The Institute's research connects the environmental imperatives directly to economic and social priorities. SDRI also seeks to develop research "tools" that provide users with the capability to make up their own minds about the complex issues surrounding sustainable development. Envision Sustainability Tools Inc. (ESTI) - the commercial arm of SDRI - markets

QUEST, a computer simulation and planning tool. QUEST contains a transportation module that allows stakeholders to develop scenarios for regional transportation. ICSC works with SDRI within the Georgia Basin and on projects involving QUEST in Poland and Bangladesh.

Centre for Sustainable Transportation (CST)

www.cstctd.org

The Centre for Sustainable Transportation was founded in 1996 to provide leadership in achieving sustainable transportation in Canada. It provides reliable information, undertakes research, particularly on quantifiable performance measures, educates stakeholders (through workshops and conferences, and a university curricula project), raises public awareness, and offers strategic policy advice in selected areas. Through its "Sustainable Transportation Monitor", Canadian and international progress towards sustainable transportation is tracked. Neal Irwin is a Director of CST and of ICSC.

Canadian Urban Transit Association (CUTA)

www.cutaactu.on.ca

CUTA is the association of providers of urban transit services and suppliers. Its services include advocacy, communications, research, training, member services, industry conferences, and program delivery. Members include urban transit systems from across Canada, business members (those engaged in the sale or manufacture of transit equipment or services), government agencies and other affiliates.



Those interested in working with ICSC to pursue sustainable transportation projects are invited to contact us at info@icsc.ca, or by telephone at 1 (604) 666 0061 or fax at 1 (604) 666 0009.



For more information contact

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