

Plugging Atlantica into the Emerging Global Network:

Why the International Northeast Economic Region is the Way of the Future

**Text of remarks by Brian Lee Crowley, President, AIMS
to the APCC meeting in Montague, PEI
29 May 2004**

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Ladies and Gentlemen,

Let me start, not by talking about this region, about *Atlantica*, but rather about an important concept that will give context to the rest of our discussion today. That concept is that of “networks”. All of us understand that to participate in the world, we need good connections. We need to know the right people, have the right cards in our rolodex, have access to good road, rail and plane connections, good infrastructure, good institutions, like schools, universities and hospitals, etc., etc., etc.

But we tend to think of those things in isolation from each other, as if they are all separate ideas. But they’re not; they are all, at bottom, the same thing. They are networks.

Now if we talk about the economic value of networks, that is usually defined as the utility or usefulness of the network, and that in turn is thought of as the number of users squared. In other words, it is a geometric progression.

Think about the telephone. If you own the only telephone in the world, it is totally useless. It has no value. Who are you going to call? The value of the second telephone is limited by who has it. If it’s not somebody you want to talk to, your telephone is still worthless. It is only as the reach of the telephone is extended that your possession of a phone begins to acquire real value. If there is one other person connected to the network, then there are only two connections possible (you to them and them to you), so the network has, if you like, a value of two. But if ten people are connected to the network, then each person has a connection to every other person on the network and the network has a value of 100; hence, the value of networks is the number of users squared.

And by the way, the mirror image of this proposition is likely equally true: the cost of being off the network is your loss of contact with all the other people, so as the value of the network increases, the cost to you of not being on it increases as well. The one billion people on the face

of the Earth who have never made a telephone call are the world's poorest. And it is not just that they don't have a telephone because they're poor. It is also that they are poor *because they don't have a telephone*, if the telephone is emblematic of being connected to other people and the host of relationships that that opens up. Those billion people do not participate directly in the enormous value that the telephone network creates. At best they pick up indirect crumbs.

Now it is not just telephone networks that I want to talk about, but rather the whole concept of globalisation, which is merely a shorthand for an incredible "densification" of a whole series of networks that girdle the globe and create huge and growing value for those who are connected to them. But not everybody is connected. With the global network, you must either be a destination in your own right (Chicago, London, Hongkong, Tokyo), or you must be on the route to a destination. And the talk I want to give you today is about where we in this region fit into the global network, and the choices we have to make in order to make sure that we are plugged in and on the right routes to the right destinations.

It might be instructive for you to consider for a moment how dynamic the networks are that bind the world together. Not only are they expanding, but places join the network, and places fall off the network as a result of economic, technological, military and other changes. Let me give you just a few quick examples.

For centuries, the world's main international trade route was the Silk Road, a primarily land-based route that linked the spices and silks of China and India to the natural resource producers of Europe. Cities such as Samarkhand became synonymous with prosperity and sophistication. Chang'an, where the Silk Route began, became one of the largest and most cosmopolitan cities of its time, boasting a population of close to two million.

Columbus reaching America, combined with innovations in ship and navigation technology, reorganized the world trade network. England had been a backwater up to then, but the British soon controlled seven key points along the new network, including London (Atlantic), Gibraltar (Mediterranean), Cape Town (Cape of Good Hope), Bombay (Suez and the Red Sea) Calcutta (the Indian Ocean), Singapore (Straits of Malacca), and Hong Kong (Asia-Pacific). By controlling world trade routes, England became the richest country in the world. The Silk Road died out; rich towns became ghost towns, overtaken by network changes.

In the United States, the bicentenary of the Lewis and Clark expedition to explore the Louisiana purchase between the Mississippi and the Rockies reminds us of one of the main purposes of the expedition in the mind of Thomas Jefferson, who authorised it. The Whisky Rebellion had driven home for him the problem of western separatism, a problem made worse by the shape of the network in the US. West of the Appalachias, that network was dominated by the Mississippi River, a powerful piece of network infrastructure that drew trade and development, not east to the population centres of the new nation, but south to New Orleans, the Caribbean and Europe. Jefferson hoped that Lewis and Clark would find a northwest passage, not the sea route to Asia through the Arctic, but a navigable link between the country's eastward flowing and westward flowing rivers. If it had existed, it would have bound together America on an east-west axis. It didn't.

What did exist some years later, however, was the railway. The railway provided a manmade link east-west across the continent. The original thought was that the main railway junction would be in St. Louis, the dominant city in the Midwest and the 4th largest in the US. But to the eyes of that city, railways were a dirty, expensive unproven technology. They decided not to be part of this new evolution of the network, preferring to remain the king of the Mississippi, a free piece of infrastructure that to date had given the city a commanding economic position. Chicago, on the other hand, was a small but new and thrusting town that said they would be the railway hub, they invested, they acquired a dominant position in the new network, and by 1860, the city was served by 11 railways and 100 trains a day passed through the city. St. Louis never recovered. It went from a dominant to a very secondary position in the network, and has never really recovered.

From a network point of view, what the railway (plus the US Civil War) did was to re-orient America's axis, from a chiefly North-South one to a predominantly East-West one.

Those of you interested in Canadian history will know, of course, that this country ultimately went through the same re-orientation. Before 1867, we were a collection of north-south trade corridors. This trade orientation was protected and managed by the first Canada-US trade agreement, known as the Reciprocity Agreement. The Americans abrogated reciprocity, and that together with the fears engendered by the military build-up attendant on the civil war, and a host of other factors, led directly to the creation of Canada in 1867.

Now, we traditionally associate Sir John A. Macdonald with the National Policy (of which more in a moment), but in fact Macdonald's very explicit first choice for a keystone policy for the new nation was the negotiation of a new reciprocity agreement to safeguard the prosperity of Canada's regions. The Americans refused, and Macdonald was forced back on what he considered to be very much a second best policy: the National Policy. That policy was a conscious decision to disconnect from one network and to create a new one, more or less from scratch.

The tariff wall went up at the border, sundering many trading relationships southward, and a new network was created in the form of nation-building infrastructure reaching from the Atlantic to the Pacific.

The effect on this region was dramatic. Over a period of a century or more, the pieces of the natural trading region that straddles the border in this part of North America progressively turned their backs on each other. Instead of the border being the political dividing line it needs to be, it became much more. Economic activity was sucked out of Atlantic Canada, which had been dependent on international trade with New England, the Caribbean and Europe. In the words of one famous Maritime historian, Ernie Forbes, it was as if the Maritimes had been pushed a thousand miles further out to sea....

But the possibility exists today to haul ourselves a thousand miles back into the heart of North American economic activity. That possibility is created by the new network building activities that increasingly dominate the globe and the continent.

If we want to get from here to there, it is important to know where both "here" and "there" are. So let's start with where "here" is, because I don't think most people yet realise where we are. Most of us think of this as where we are. But this view obscures more than it reveals.

North-eastern North America

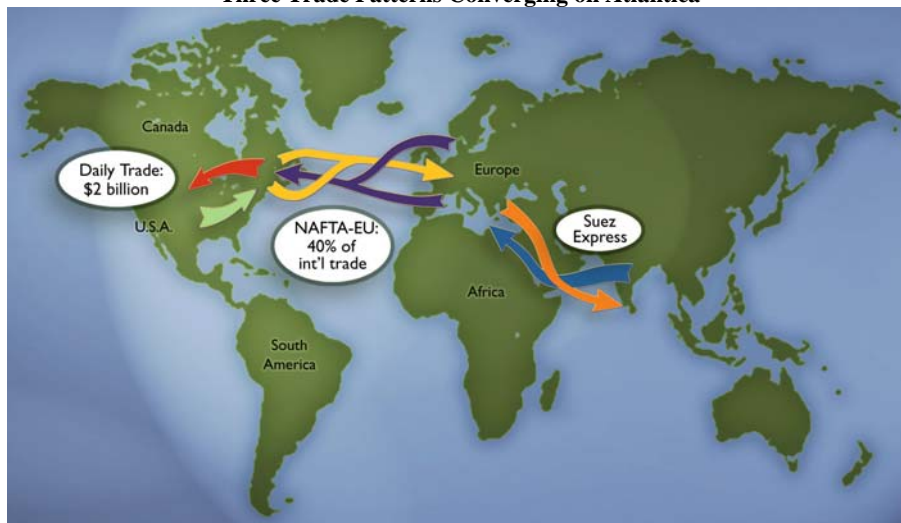


We are at the intersection of three powerful trade relationships and our local neighbourhood is now dominated three increasingly coherent and powerful economic regions with well-defined and consciously pursued economic interests. Where we need to go can be summed up as three imperatives given the neighbourhood we inhabit and the patterns that swirl about us.

The three trade relationships that define our world

Let's talk trading relationships first.

Three Trade Patterns Converging on Atlantica



NAFTA: Trade between Canada and the US is the largest in the world: \$2 billion worth of trade every single day of the year. Thirty eight states have Canada as their largest trading partner. Ten million Ontarians sell more to the US than 120+ million Japanese. Canada is the largest supplier of oil and gas to the United States. Over 300,000 trucks enter Maine alone from Canada every year, about a 50% increase in only 5 years. There are 23 US/Canada truck border crossings within the Atlantica region, 11 of which can be considered major truck gateways and seven of which can be considered major rail gateways for United States/Canada trade. Over five million heavy trucks crossed the United States/Canada border on the region's 11 major truck freight gateways in 2000, accounting for over 43 percent of the total truck crossings at the major US/Canada ports of entry nationwide. Though truck is the dominant mode of transportation for US/Canadian trade, rail movements account for a small percentage of the cross border traffic. In 1995, over 327,000 freight railcars traversed these border crossings. At the same time, cross-border truck traffic has grown dramatically, particularly since the advent of the NAFTA in the mid-1990s. In fact, at the Calais/St. Stephen area border crossing connecting Maine and New Brunswick, truck traffic has doubled in the past 10 years.

The second trade relationship is the EU-NAFTA relationship. Forty percent of world trade occurs between these two trading blocs.

Finally, there is the Suez Express. As a result of changes in shipping technology, including the move to post-Panamax ships, world-shipping patterns are shifting radically. Almost the totality of Asian shipping to North America used to cross the Pacific to west coast ports. But increasingly shipping destined for east coast and neighbouring destinations is borrowing the so-called Suez Express route. As a result, *the east coast of North America is now on the Pacific Rim*, and is a destination for the industrial output of fast-growing China, India and SE Asia as well as a departure point for our exports back to them.

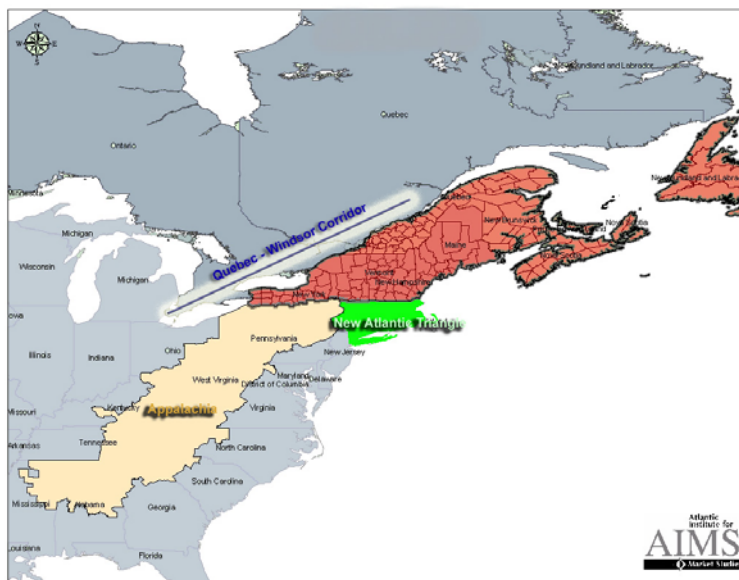
The shipping technology advances that are making this possible also drive the emerging hub and spoke structure of the main ocean-based trade routes. The main traffic will be increasingly concentrated on a declining number of load centres capable of handling these huge ships, with local traffic radiating out from there via a number of means of transport: rail, truck, short sea shipping.

Note that we in Atlantica are at the intersection of these three trade relationships.

The three neighbours that surround us

I also mentioned that we are at the intersection of three powerful economic regions, regions that happen to *spill over the old and outdated jurisdictional boundaries that define our politics, but not economies, trade or growth*. Indeed this is one of the themes of my talk, and of globalisation – the growing mismatch between political jurisdictions and economic footprints. The three regions that surround us are: the Quebec City to Windsor Corridor, the New Atlantic Triangle¹ and Appalachia.

Atlantica: The Intersection of Three Major North American Regions



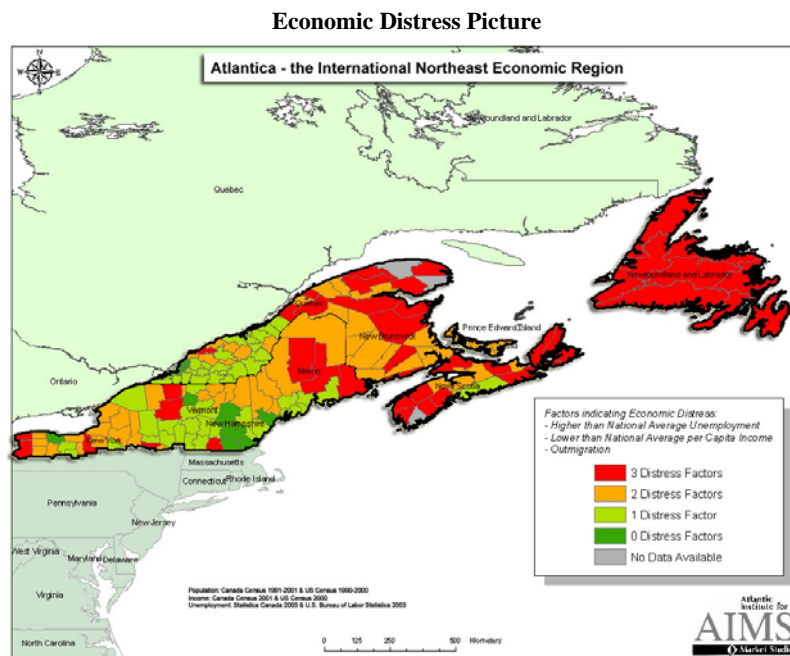
The axis of orientation of all of these regions is south and west, not north or east. That has consequences for us in thinking strategically about who our partners are in our efforts to make sure that we connect with the emerging continental and global networks. More on that in a moment.

¹ **New Atlantic Triangle:** According to Michael Gallis and Associates' study for the state of Connecticut, the Boston and Albany metro regions, together with the New York metro region, form the three points of a distinctive triangular structure called the "New Atlantic Triangle" or NAT. The Triangle has enormous economic, institutional and cultural resources. The defining characteristics of NAT are its massive concentrations of economic, institutional and cultural resources not equaled in any other geographic area of the world.

Who are we in the middle of all this?

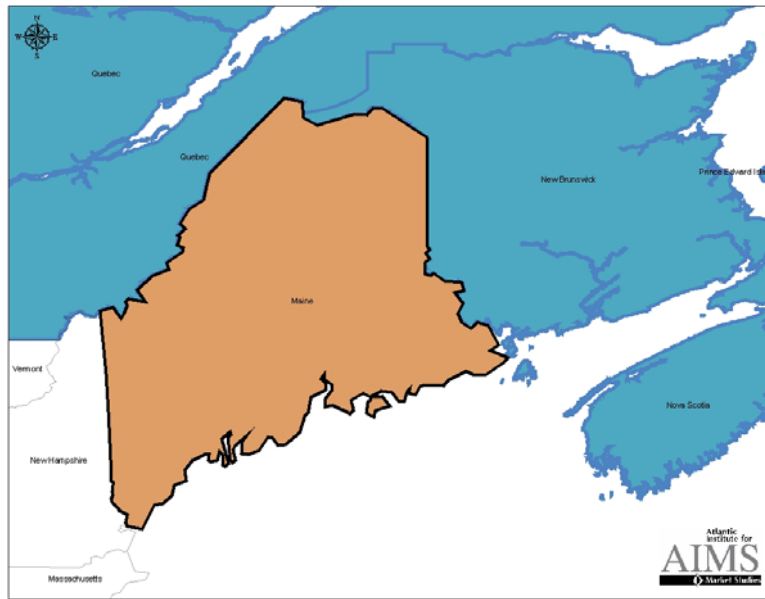
I used to think that Atlantic Canada was a relatively poor region within a wealthy country, but it's not. It is one half of a relatively poor region within a wealthy continent. Let me try and illustrate:

Unlike the Quebec City to Windsor Corridor or the New Atlantic Triangle, Atlantica is characterized by above average levels of unemployment, outmigration and low income. Combine all these “distress factors” on a single map, and the picture comes sharply into focus.



Atlantic Canada and eastern Quebec are not simply a poor region within Canada, any more than upstate New York, Vermont, New Hampshire and Maine are just a relatively underdeveloped part of the United States. In fact, these areas represent two halves of a single poor region within North America, a fact surely explained, at least in part, by the disruptive effects of the border on regional economic coherence. A couple of quick examples will suffice:

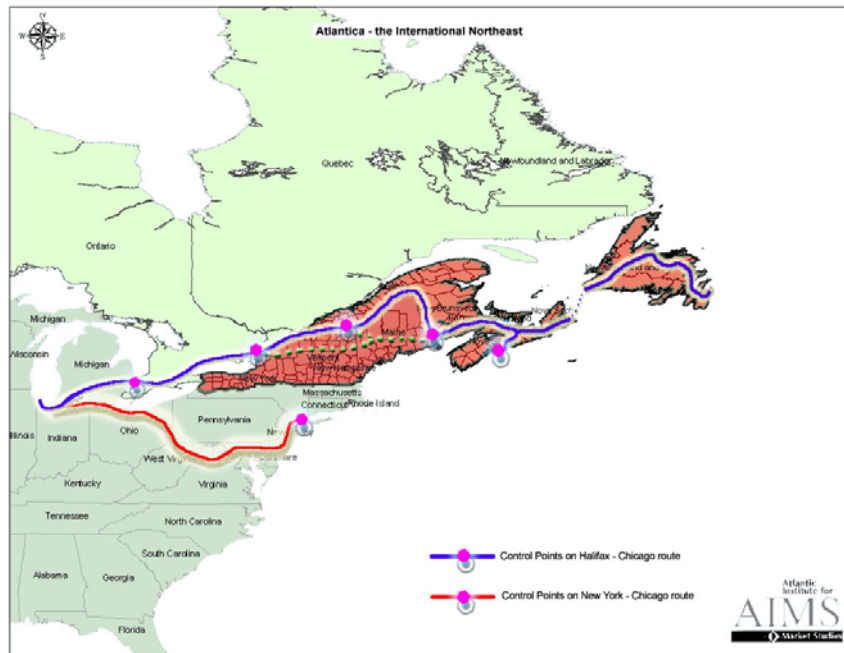
Maine and its Canadian Context



Maine, for example, is the only state in the lower 48 that shares more border with another country (Canada) than with its neighbouring states. Maine is in fact a peninsula surrounded on three sides by Canada, and on another side by the ocean. This really drives home the fact that in the old half-continental dispensation, both halves of this region looked like the end of the line for their respective national transport planners. Under the old model, of two half-continental east-east networks, you really can't get anywhere from Maine. In an era of continental integration, you can get to Canada and openings on the global trade network.

The peculiar interaction of the border and geography in this region means that the border is far more disruptive of economic efficiency than almost anywhere else (a close parallel would be the Ontario/Michigan border). Consider, for example, the inefficient route that geography and national policy have imposed on freight traffic trying to get from the *major centres of this region* to markets in the North American heartland. Compare that to the geographically most efficient routes. Now look at how the border would affect a route that was much more efficient.

Border formalities following the shortest hypothetical routes between the Port of Halifax and important connection points to the North American heartland



Look at the route that rail cargo follows from that same corridor trying to get to Boston and New York, almost all of it on secondary quality routes that cannot support the maximum loads that Class One railways can handle. So much for the advantages of being “a day’s sailing time closer to Europe”. Note too that the main highway from the nearest land border crossing to the US (I-95) only allows an 80,000lb load on trucks, meaning a fully laden container cannot be moved by the main highway from Halifax to Boston or New York. This is in strong distinction to the other north/south routes elsewhere in the region.

Add to that the unwillingness of CN to guarantee a ready and well-timed supply of rail cars, and you have a real network problem for the Port that is our main attraction to the world in terms of being connected to the global trade network.

Note too that New England is a fiction, at least from an economic point of view. As the concept of the New Atlantic Triangle makes clear, the conurbation stretching from Boston through Connecticut and into New York City is already densely developed and prosperous – in fact it may be the largest concentration of wealth and wealth generating capacity in the world. It is already deeply interwoven into the fabric of North American economic life.

The same is true of the Quebec City to Windsor Corridor. The orientation of these dynamic and highly developed regions is south and west in continental terms. In practical terms, they see little in the way of interest or opportunity to the north and east, however much they may pay lip service to the idea of greater regional co-operation. One of the ties that bind Atlantica together is the shared experience of underdevelopment, a dissatisfaction with the status quo, and a commitment to rejoining the mainstream of North American economic life.

There is precedent for this subtle matching of true interests in defiance of formal political boundaries. Look at our third neighbour, Appalachia, for example, and we can quickly see that the Appalachian Regional Commission, has been one of the continent's most successful projects at achieving economic growth in an underdeveloped region, and has done so by abstracting from formal political boundaries such as states, and defining the region by objective characteristics of underdevelopment — factors such as outmigration, unemployment and low incomes.

The three imperatives that beckon to us

a) *Transport intensive economy*

We have little choice about the steps we have to take throughout our shared region. As we move ever deeper into the service-based economy, the density of quick and efficient transport infrastructure becomes a vital competitive issue. According to the USDOT, truck traffic in North America will double over the next 16 years or so, reflecting these trends. Rail traffic will grow, but more slowly. And as the result of many economic trends, such as the increasing customisation of production (cars, Dell computers, Amazon books, custom shirts over the Internet) sent from highly efficient centralised production facilities, plus just-in-time inventory control, and the decentralisation of much physical and intellectual production thanks to the Internet, the value of things to be shipped will rise, while the weight will decline and the diversity of final destinations will explode.

The model of the future for transport is not the railways, shifting large volumes of relatively homogeneous freight over high traffic lines between major centres, however important that will continue to be. The model for the future is UPS and FedEx, tailoring both pick up and delivery to highly individual and widely dispersed need. That means that truck traffic is going to be unimaginably more important, with air traffic also growing in importance. Resistance to

expansion of the road network, however, also means that sea transport, among others, will increase for some purposes, relying on fast-shipping technology.

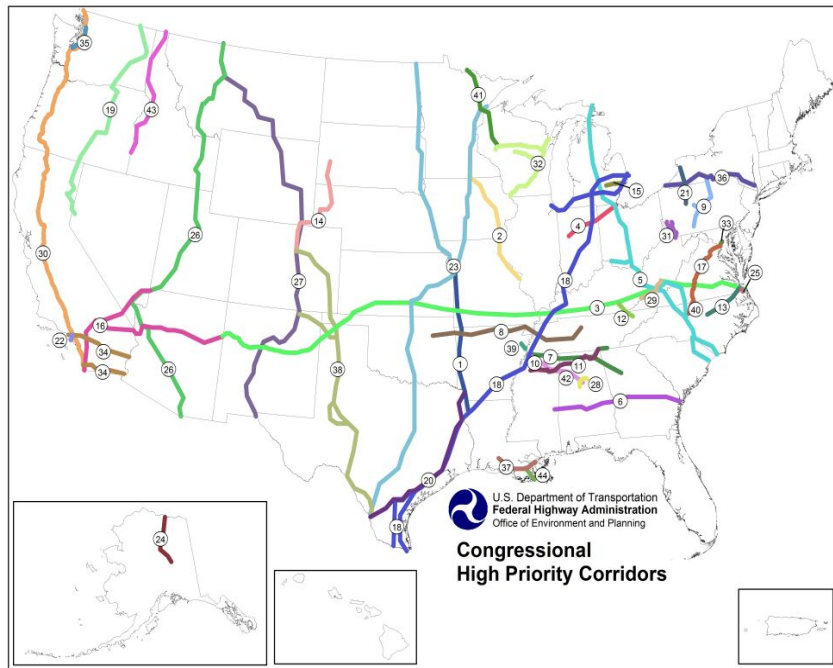
Some people think this is mistaken, that the future is in the knowledge economy and that services don't need transportation. My view is that we don't get to pick and choose what parts of the network we are connected to. You are either on the whole network, or you're not. It does no good to have the smartest people in the world with internet connections if they can't move efficiently to meetings, can't get their time-sensitive packages in or out efficiently, can't travel where they wish to go. Every part of the network matters, and increasingly I think it is the density of connections that makes for prosperity, just like it is the density of connections between neurons that makes for intelligence and the density of knots per square inch that makes for the value of a Persian carpet.

b) Continental integration

It is said that in a globalising world, the economic future lies with those places that are *either* destinations in themselves *or* are en route to destinations. So what are we? In the old dispensations, we were neither — we were the end of the line on both sides of the border. But no more...

Continentalism is starting to percolate in the minds of decision-makers, but it has not yet sunk in with respect to this region. As an illustration, look at this map of high priority highway corridors as designated by the US Congress.

Congressional High Priority Corridors: the Atlantica Perspective



Looking at this map, one is immediately struck by three features. One is the predominance of north-south high priority corridors. The dominant theme of this map is the realization of an integrated North American transport infrastructure, supplying the north-south connections that lacked under the previous regimes concerned solely with national (largely east-west) transportation systems. This map shows that NAFTA is under construction all around us.

The second is the power and efficacy of the Tennessee Congressional delegation.

The other feature that leaps off the page for residents of Atlantica is that the US northeast is virtually the only part of the country with no designated high priority corridors. Yet based on the objective factors that usually justify the construction of new interstate highways (such as the potential economic spin-off) there is almost no other route that could generate as many potential benefits as a highway cutting east-west across Atlantica.

Just consider that economic development is most often generated at the *intersection* of interstates. An interstate crossing the American portion of Atlantica on an east-west axis would likely intersect the following US interstates: 95, 93, 91, 89, 87 and 81, while also connecting with the Trans-Canada Highway at several points. One notional route for such a highway, what I call Main

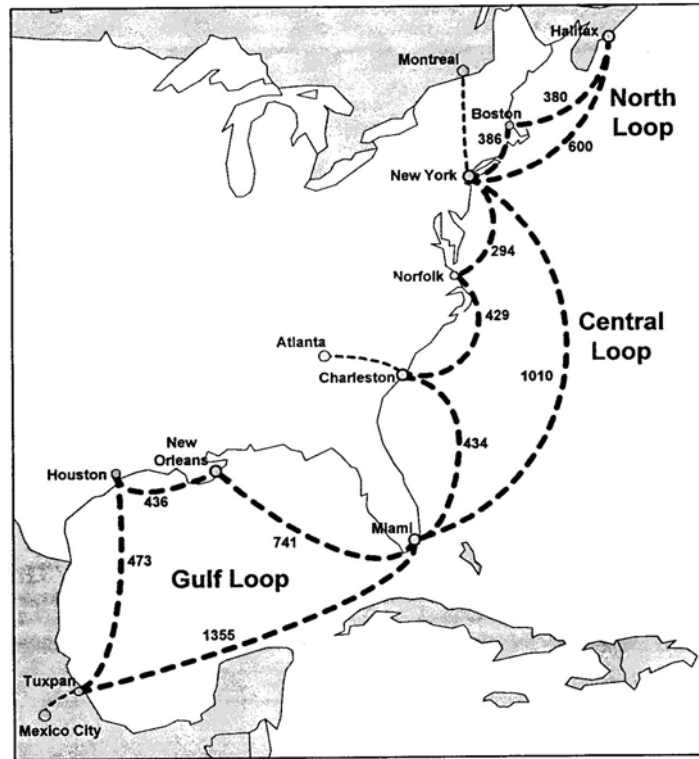
Street Atlantica, includes a branch to Montreal through the Eastern Townships of Quebec, and another through upstate New York to the Ontario border.

And this is not idle talk. Under pressure from members of Maine's congressional delegation, including especially Senator Susan Collins, the US Transportation Secretary, Norm Mineta, has pledged Washington will carry out a multi-modal transportation study of the corridor that reaches from Halifax, right across New Brunswick, Maine, New Hampshire and Vermont and northern New York state to the Ontario border. Congress has appropriated a million dollars for this. The congressional representative for northern Maine is a member of the House Transportation Committee, and has inserted Main Street Atlantica in the new high priority corridors map, although that is no guarantee that it will make it through to the final version. My Institute is working to make sure that the Government of Canada participates actively in that study and acts on its recommendations.

Highways lead people to jobs and encourage employers to invest in facilities along their footprints. It's no coincidence that economic opportunities are poorest in areas of Atlantica that are not on major trade routes and where good roads do not exist and people cannot get their goods or themselves to market. The study of the economic impact of the US interstate highway system shows that the greatest development occurs around the intersections of interstates, something there will be a lot more of here if we can build the cross-state infrastructure I'm talking about.

But as we all know, it isn't just the truck and road situation that is an obstacle for us in the region. Air transport within Atlantica between its major centres is minimal to non-existent, especially across the international boundary. The rail links, as I've already noted, are poor and have inefficient weight restrictions. The Jones Act is a big obstacle to the development of fast-shipping technology that could allow the natural advantages of the Port of Halifax, that alone in this region can accommodate post-Panamax ships, to be pressed into the service of the region as a whole.

Emerging East Coast Short Sea Shipping Network



c) *Regional coherence building*

One of the things that surely explains our relative degree of underdevelopment in this region is that we have not yet brought ourselves to think in terms of a shared cross-border region where local success depends on working more effectively across boundaries, to achieve the kind of economies of scale, transport efficiencies and other regional coherences that more successful regions, such as the mid-west, Ontario, California and Texas —regions with which we are in competition — take for granted. This is again the theme of choosing to be connected to the emerging networks, and the consequences for those regions and people that fail to make the right choices or that are simply by-passed by events.

I really don't think that we have a choice about building the coherence of our region, because investment and commerce increasingly will flow to those regions where the obstacles to the quick and efficient movement of goods, services and people have been minimised. We are behind in this regard.

Our competitor regions are not waiting for us to get our act together, and if we don't build the ability to move people and goods across this region properly and efficiently, we simply will not be able to compete to attract the investment, jobs and growth that we all want to see.

Compare what we are doing, for example, with the plans for Texas.

The Texas Transportation Commission has approved a plan for 4,000 miles of multi-use corridors. The Trans-Texas Corridor, a state-wide network designed to be up to 1,200 ft wide, includes elements such as six passenger vehicle lanes, four 13-ft-wide truck lanes, six rail lines with high-speed lines for passengers and freight, and a 200-ft-wide dedicated utility zone.

Estimated cost for the 50-year project is between \$145 billion and \$183 billion.

Or

The North American Superhighway.



Note that it connects the Quebec City – Windsor Corridor and western Canada to the central trade corridor of continental integration, but we don't even get on the map, because its designers are thinking solely about the NAFTA relationship, not the EU-NAFTA or the Suez Express-NAFTA ones. They have not understood the global trading patterns that define where we are in the world.

Note too that this map corresponds interestingly to the re-orientation of the rail network that Paul Tellier engineered at CN. He took that company from an east-west orientation to a north-south one, a funnel down which the production of Canada is drawn into the US.

It is important to note, by the way, that Atlantica is not merely a question of roads and ports and rails. Energy, for example, is a major component.

The pipeline that already links the offshore to Boston through the heart of this region is the spine of a whole new economic entity. And you will note that it is no accident that it was built, not to take that gas into the industrial heartland of Canada, but to help us re-establish our vital links with our historic partners in New England, creating opportunities throughout the region. We would not have built this pipeline had we not had access to American consumers to pay the cost of exploration, development and pipeline construction.

Electricity is another network area where Atlantica makes eminent sense. We held a conference on this theme here in Moncton a few months ago. Curt Hebert, former chairman of FERC in Washington was the keynote speaker. We followed that up with a new paper on creating an Atlantica, bi-national electricity market, disponible sur notre site web à www.aims.ca

The Irving oil refinery in Saint John, one of the largest in North America, is one of only two oil refineries in Canada to export the majority of its production, and it does so to a region that corresponds closely to Atlantica. That refinery is a major piece of Atlantica infrastructure.

But there is more to this than infrastructure, however important that is.

The economic future I have laid out here can only come to pass if we demand that our political leaders complete the market opening actions they've started but not finished. NAFTA remains incomplete. We are treading water on negotiations for a free trade zone linking the EU and

NAFTA — a zone that would tear down the transatlantic barriers that stand between us and opportunity. And in this election season it is clear that political forces hostile to freer trade are more powerful in the Washington political establishment than they have been for decades. Look at the US farm bill or steel protectionism or the US attitude at the Doha trade round which has brought broad-based trade liberalisation virtually to a standstill.

And we have to add to those forces the devastating effects of 11 Sept. 2001. 11 September has driven home to Washington how the institutions of a free society can be turned into weapons to be used against them. Relatively open borders are one of those institutions. Whether terrorists came in from Canada last time or not, the border is an area of vulnerability that Americans will manage in order to maximize their own security.

But if that means hours of delay for goods, services and people moving across the border, it will hurt us badly in both halves of Atlantica. If 300,000 trucks enter Maine from Canada every year, and each one of them is delayed for just an extra 20 minutes – well you do the math about the cumulative loss of economic efficiency and vitality that results.

The purpose of our Atlantica project at AIMS, then, is to play our part: to begin to build the intellectual capital in the form of an understanding of the shared region that straddles the border and the common interests its residents have in deepening that relationship. It is already happening, as is so clearly demonstrated by the support of NY state transportation commissioner Joe Boardman for the Atlantica concept, the Mineta plan for a regional transportation assessment, and the existence of the natural gas pipeline that now ties our region together, all demonstrate.

I don't want to minimize what has already been accomplished politically in this region. The Council of New England Governors and Eastern Canadian Premiers goes back nearly 30 years and the Gulf of Maine Council on the Marine Environment goes back more than 10.

But as I have tried to show, part of the problem with the co-operation that has taken place is that it is often based on the political fiction of "New England" being a coherent region in any sense. I believe that it is not, and that when we strive for regional coherence while excluding upstate NY and including Connecticut and Rhode Island and even the Boston area (the "New Atlantic Triangle"), we are betraying our own lack of strategic and geo-political sense. We allow people with interests widely diverging from our own to veto policies that are vital to our interests, and

we get little or nothing in return. I believe that regional coherence and efficiency will only be achieved when we think coherently about what the relevant region is.

What I want to underline in closing, ladies and gentlemen, is that political co-operation and action largely follows the growth of economic activity. In other words, it is the people in this room, and the forces that you represent, that will lead the drive for tearing down the barriers that still divide us. If you wait until politicians want to take the initiative before trying to build cross-border relations, you'll be waiting a very long time indeed. *Only* when they sense that there is an understanding in the public's mind that the benefits of tearing down these familiar old barriers outweigh the costs, *only* then they will do so.

The possibilities I have outlined this evening will not occur simply because they can — they have to be made to happen. And the people in this room are vital to this effort, because it is, as I've already remarked, when the ties exist on the ground that we can get the attention of politicians to liberalise trade relations, open the border, remove non-tariff and other barriers to trade and generally get out of the way so that we can do what we do so well.

Thank you ladies and gentlemen.