Drive North:

The CARTA Initiative

The case for a Canadian automobile

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Executive Summary

The CARTA initiative is a diagnosis and prescription. It is an economic evaluation and an industrial plan of action with benefits that extend far beyond the auto sector. Embraced, it would fundamentally alter Canada's position and create nationalistic, industrial, economic and intellectual stimuli.

Fundamentals

- Compared to its G8 partners, Canada is not actually in the auto sector.
- Because of this exclusion, Canada suffers a great technological, industrial and intellectual deficit.
- Further, this lack of strategic position robs Canada of the nationalistic benefits that are deeply rooted in the auto sector.
- Assigned to this subordinate role, we are now being surpassed by emerging countries that possess far fewer resources than ourselves.

Recommendations

- We must develop a domestic, parallel positIon in the auto sector
- We must act quickly while the sector is reforming itself
- We must follow the example set by Sweden and Australia
- We must involve the Canadian public in the start-up process to assure buy-in

The initiative is divided into three sections:

Section I: Analysis
Section II: Strategy
Section III: First steps

Section I: Analysis

Setting

The chaos currently befalling the world economies certainly cannot be said to have any upside. Where there is financial pain there is sorrow.

However where there chaos, there is new potential. Where structure breaks down there is opportunity to create new structure. With this new perspective we can re-evaluate our industrial relationships, some of which are certainly good, and some, while being convenient, are ultimately poisonous.

This thrust of this initiative is that Canada's present business case in the auto sector is unsound, unsustainable and strategically untenable. Therefor a radical adjustment is necessary for our long-term industrial, intellectual, economic and national interests.

Principles

1. Canada has no ownership in the auto sector.
   Where you do not have ownership, you are a commodity

2. Our potential is unrealized.
   Dependence on other countries' potential is reckless

3. Our economic prospects are controlled by foreign interests.
   Our prospects will only increase with equal-partner status

4. Success in industry means moving up the value chain.
   Creation of automotive platforms is the top of the chain

5. Economic stimulus is necessary.
   A national industrial goal will create unequaled national stimulus

6. Supporting foreign companies to remain here is a weak position.
   We must leverage our own domestic position

To understand the situation Canada faces, we must first reckon the basic facts of the automotive sector.

State of the automobile

The World sector

- The auto sector is the driving force in the world economy
- Autos are sold in every country in the world
- 25 million people world-wide work in the sector
- 12 of top the 20 companies in the world are cars or oil
- 10 % of global merchandise trade (not including raw materials)
- The assets of the top 10 auto companies equal:
    - 30% of the world's top 50 companies
    - 30% of their employment
    - 30% of their total sales

Turmoil and turbulence

- Conditions are extraordinarily dynamic
- Every auto company in the world is deeply affected
- The “Big 3” are the brink
- Large restructuring is necessary
- Future is uncertain
- Canada’s role is uncertain

The GM story

- 17 percent of all vehicles sold around the world
- Failure would be a global event
- Lost $73 billion since 2004
- The shares have lost 90% over the past year
- 1/4 million former workers drawing pensions and health benefits
- 21 factories still operating by GM in North America, perhaps 5 more will close
- The economic model they built when they owned 50% world sales doesn’t work
- America based their sector on dividend earnings
- Profit motive pressure destroyed the engineering base

The American dream

- U.S cars aren’t quite as good, but getting better
- Large problem fighting perception vs reality
- The best American products are excellent
- Obama calls auto sector the "backbone of America's manufacturing and cannot be allowed to fail”
- Is the bailout enough to guarantee a future for the “Big 3”? (This is impossible to predict)
- China and India are quickly becoming leaders in automobile production

The Canadian reality

- 70 billion dollars in new sales, 2008
- Our largest manufacturing sector
- 12% of our manufacturing GDP
- 25% of our manufacturing trade
- 400,000+ jobs
- 9th largest vehicle producer in the world
- Largest manufacturing employer
- 14 assembly plants
- 500 original equipment parts manufacturers
- 4000 dealerships and many other directly related industries

Us and them

An asymmetric relationship

Canada's relationship is typical of one where two nations possess unequal manufacturing capacity and/or intellectual capital. Specifically, there is an upper-nation and a lower-nation. The upper-nation drives the relationship entirely, for it designs, engineers and markets while the lower partner simply manufactures the product.

As a member of the G8 (due almost entirely to our manufacturing of foreign automobiles) Canada might naturally be assumed to be a country that would occupy the upper-nation status. While Canada has hundreds of excellent part manufacturers, these obviously, do not drive the market. In the auto assembly sector, Canada's primary role is that of labour and material supplier. Other more innovative countries create the vast majority of the IP and reap the benefits of these "better jobs."

Summary:

- The auto sector is a large net benefit to our economy
- Canada is in the G8 because of the auto sector
- We do not extract the full value of the sector

Canada's problem with the auto sector

We don't have one. Therefore:

- We do not have the controlling interest
- Platform R&D is not centered here
- Companies are not responsible to Canada ultimately
- Companies do not pay the bulk of their taxes here
- They get benefits for little in exchange
- Foreign forces decide our percentage
- There is no nationalistic pay-off
- There is no creation of the innovation feedback loop
- Canada does not sell a Canadian product to itself or the world

Why is this exclusion so negative?

- Stultifies our own goals and aspirations
- Retards the seeding of home grown IP
- Retards opportunities for engineers
- Fails to build foreign markets
- Increases dependence on foreign countries
- Does not build nationalistic sentiment

The logical disconnect

We do have ownership of certain sectors. In fact, base minimums of Canadian ownership are mandated by law in *most* of the following sectors:

- High-tech
- Aerospace
- Banking
- Pulp and paper
- Food
- Mining
- Fishing
- Transportation

Why these sectors?

- Ownership in these sectors is seen as critical to our long-term wealth
- Nationalistic, economic, intellectual benefits
- Good for our long-term growth
- Good insurance against global reversals
- We need to build core strengths
- Human nature to create... “We are what we make”

If ownership is seen as critical in these areas, the same logic must apply to the most important of all sectors; the auto sector.

Canada's role

The back seat

Therefore Canada is not actually in the auto sector in the same manner that the other G8 countries are. In fact there is no actual "Canadian auto sector" as it is referred to in the media and in political environments.

> ***Note:*** *An interesting example of this is that although GM is called "GM Canada" in Canada, there are no actual separate GM Canada financial statistics. This is because that data is completely rationalized into the American financial structure.*

We are, instead, in the foreign-owned auto assembly industry. And we have done brilliantly well in it; such are our capacities and abilities. Unfortunately, this is the same role that countries like Mexico and Slovenia occupy. There is a tremendous difference between the two realities. One role develops intellectual and industrial capacity and one does not.

Let us be clear, there is world-class engineering undertaken in Canada for the American sector, but it is not market defining, nor is it strategic. It is not guaranteed, and the net benefit is for products that are the property of foreign companies.

The foreign parent companies will always decide to give the market-driving research to their country of origin. This fact is exampled in the case of the newest and most important hybrid research being undertaken. It is centered in the countries that actually create automotive platforms.

In summation, our role as assembler condemns Canada to second tier status. Indeed, Canada waits for other more innovative countries to perfect technologies and then entreats these companies (through tax incentives and outright financial aid) to assemble their vehicles here. This is not bargaining from a position of strength.

Growing backwards

From Canadian manufacturer to American branch plant

Canada was once very much in the auto sector. Albeit in highly individualistic way. Right from its inception as a foundling industry at the beginning of the 20th century, there sprung up over 50 small Canadian auto manufacturers. Most of these were not much more than engines strapped to carriages, but indeed, the big companies products were not much more technologically advanced.

The last great vehicle was the McLaughlin Buick, which was taken over by GM in 1942. This was the last mass-produced Canadian car built and it was considered the superior of the standard American-made Buick.

Virtually since the auto industries inception in the 1900's, the American auto industry has had branch plants in southern Ontario. The reasons were manifold: a steady, educated and capable workforce, vast amounts of land surrounded by waterways (iron-ore transport and production) with a un-congested rail system traveling north-south.

Also the cost of living was less, the dollar was less and medical costs were less.

This system grew and served both countries well for decades, an upper nation providing intellectual innovation and the eager server-nation, supplying labour and raw goods. The good fortune of America to have such a neighbour could hardly be measured.

Canada was a country that could provide not only workers, but also immense amounts of raw materials; she spoke the same language and was ultimately leverage-able.

A superb, record-setting alliance was nurtured and both World Wars cemented our alliance. Every American manufacturer had successful branch plants in Canada. Canadians manufactured cars for Canada and America manufactured cars for its country.

The auto pact

The moment of inertia

In 1965, the Canada–United States Automotive Agreement, commonly referred to as the Auto Pact, was put in place. The agreement transformed the North American car manufacturing landscape.

The Auto Pact eliminated trade tariffs and created a single North American manufacturing market. The unified market allowed Chrysler, Ford and General Motors to form a single integrated production and marketing system. Now, since it did not matter where the plants were, the American corporations could build larger plants in the vastly cheaper and available land in Ontario's golden triangle.

Were all parties served by this agreement? Probably in the lights of the times, yes. Our plants could now build more cars for bigger markets. The Americans could increase capacity by building massive plants in Ontario's golden triangle, one of the most naturally blessed industrial sights in the worlds.

Unfortunately, this agreement virtually erased the possibility (need?) for an indigenous Canadian auto sector. We were now building cars for a massive and rich market. What use could a Canadian vehicle be? Why would America buy a Canadian car? Indeed why would Americans buy any foreign cars in the sixties? In truth they barely bought any. The American "brand" was at its peak.

The Auto Pact saw the end of Canadian versions of American cars.

NAFTA

Reinforcing the ties that bind

Perhaps surprisingly, NAFTA did not change the direction of our auto sector. It simply fixed our situation in stone. The Auto Pact was the game changer and precursor. However, NAFTA showed other industries that lowering tariffs worked well—for some situations, and for some countries.

For Canada, NAFTA translated into a theoretical expansion of marketplace. However, besides Blackberry and to a lesser extent Bombardier, the number of Canadian companies impacting American markets are relatively miniscule. Our blessing has been the success of many small companies competing against American companies in the U.S.

America first

Canada second

The following is a list of cars that are manufactured in Canada. The average fuel consumption would be on the order of perhaps 20 mpg. These are not models that speak well of the Big 3's understanding of the future of transportation in the 21 century.

	Chrysler	
Pacifica	Chrysler Town & Country	Dodge Caravan
Chrysler 300 series	Dodge Magnum	Dodge Charger

	Ford	
Crown Victoria	Mercury Grand Marquis	Freestar
Mercury Monterey	Edge	Lincoln MKX
Flex		

	General Motors	
Chevrolet Impala	Chevrolet Monte Carlo	Buick Allure
Pontiac Grand Prix	Chevrolet Equinox	Pontiac Torrent
Chevrolet Silverado	GMC Sierra	

Although Canadian branch plants would have preferred to assemble more fuel efficient vehicles and indeed lobbied for them, those "market drivers" are saved for the the US and increasingly Mexico.

Furthermore, the newest technology is saved for the home country as well. An example of this being the new Chevrolet Silverado where although the lead plant is in Ontario, the new Hybrid version is in Indiana. The rationale for this decision is deeply political, and it should be.

We can expect more of this protectionist thinking from the Democratic president.

The real auto sector

Automotive platforms

In the automotive world, the platform is the stem cell. Platforms can be modified and used for many different vehicles, (minivan, small SUV, economy car) and licensed all over the world. Very simply, platforms are the basis of the auto industry.

Those who own the platforms own the keys to the industry. These platforms require tremendous resources in engineering, design, and capital. (1 to 2 billion dollars)

The final step and highest rung in the automotive intellectual realm is the design and matrixing of power-plants and platforms. Only about a dozen countries in the world have showed this sort of initiative.

It must be made clear that this "initiative" is not a question of size or population. Sweden produces several world–class power-plants and drivelines for trucks, buses, boats and now significant parts for space vehicles.

Furthermore, countries that design and build these platforms and drivelines are perfectly positioned to embrace new technologies with large workforces of engineers.

Which country is better placed for the future, countries that innovate or countries that merely assemble?

These are the countries that produce automotive platforms.

America	Italy	France
England	Australia	China
Germany	Korea	Sweden
Malaysia	Japan	Russia
Norway (emerging)	India (emerging)	

The G8 and beyond

Europe

Centerpiece of the crown

As well as the behemoth Germanic auto sector which largely drives the world auto industry, we have the powerhouses of France, Italy and despite its auto sector decline, England. However, now included in the EU auto sector are the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia.

These last additions serve generally as labour and licensing-manufacturing partners, though Skoda of the Czech Republic now builds well-regarded cars and trucks since being purchased and refocused by Volkswagen Group in 1991.

Japan

The eastern revolution

It is difficult to think of a mass-market product that speaks more clearly of affordable excellence than the Japanese automobile. Such has been their success.

Its roots in excellence are as old as the culture itself and its motivations are deeply nationalistic. Quietly infiltrating the world market in the sixties and then by sheer brilliance of design and implementation, they mounted to world domination in automotive production, quality, and dollar/value excellence.

In the sixties and seventies, they perfected a system where the companies (Toyota, Nissan and Honda, Mazda etc…) would work together to agree on commonly used pieces to be used in their various vehicles. (Nippon Denso is an example) The concept was strategic: don't pit companies carrying Japans flag against each other. Instead focus these fierce competitors on the bigger target: American car manufacturers.

A highly closed market even today, Japan is well aware of its reliance on its automobile colossus. Japan will not allow its key companies to be swallowed by foreign interests.

In fact foreign car manufacturers are not welcome in Japan today even when merging with Japanese companies: Renault and Nissan, and GM and Mazda. Neither Renault nor GM have factories in Japan's market of 128 million people.

Japan's approach is perhaps totalitarian, however their staunch autonomy in this sector has delivered them to where they are today: in many was, driving the most important market in the world.

Enter the new players

China and India

> *"It took Japan 40 years to become a great automotive nation. It took South Korea 20 years. I think it will take China as little as 10 to 15 years."* ***—Giorgetto Giugiaro*** *(car designer)*

At present these two countries are about to complete their entries onto the world market. China's Geely has already made plans to import into North America with a vehicle that will put immense downward pressure on the small car market.

China has made it clear that is has tremendous, if not frightening, goals in its sights.

India's national auto maker TATA is presently thinking in terms of its own internal market, but no doubt, they will begin to look outward as their product improves and evolves.

Some facts:

- Full world market entry perhaps five years off
- These companies will not stay in the cheap end
- They will out-cost everyone
- Nothing can defend their entry except new trade rules

England

A cautionary tale

The sad unraveling of the English auto sector is a story of giant, recalcitrant labour forces, poor build quality and a lack of clairvoyance into future market realities. The end operation of these three factors created the undoing of the English auto sector in the 1970's. Foreign money now controls virtually all of its auto sector.

This is especially tragic for England's expertise is world renowned (especially in auto racing) and in fact when Hyundai first entered the market in the 1980's the English were amongst those whose advice they keenly sought.

For a country that has had such an indelible impact on the sector historically, (Rolls Royce, Bentley, Jaguar, Austin Martin, MG, Mini etc…) it is clear that this is a tragic turn with nationalistic overtones and one can surely see that Britain's long-term interests will be served to repatriate the auto sector.

But even in this sad example, the British are far better off than Canada for the isles have immense engineering resources that still are responsible for the design, engineering and manufacturing of those famous British namesakes and indeed many foreign makes.

This ironically underscores the regrettable reality that, at least in the case of English auto companies in Britain, the final profits go offshore to foreign pockets.

In summary: despite the off-shore ownership, England is still a driving force of original automotive innovation.

Sweden

Our technological superior

With a population of only nine million (Ontario has 13 million) Sweden has so completely outpaced Canada in the auto sector that close comparisons do not flatter us.

They have conceptualized, produced, and industrialized two world-class automobile manufacturers in Volvo and Saab. American manufacturers now own both of these companies, but as this is being written, it is very possible that these two companies will be sold to generate capital for their American owners.

It is critical to note that both Saab and Volvo did not sell their truck divisions to their American buyers. These divisions were seen as too critical to the parent companies in Sweden. Scania (Saab) has superb aviation, truck and bus divisions and produces 80,000 engines per year. Volvo also has a tremendously strong truck, aviation and even a space division.

It must be made clear that these companies are stepping-stones for Sweden into other high-tech sectors and they began with the authoring of their own auto sector. In short Volvo and Saab are intellectual investment houses for Sweden's future.

Which country is better placed for the future, Canada or Sweden?

Australia

The business case

The story of Australia's Holden is the leading business case for Canada's entry into the sector. It provides the direction and the roadmap.

Once a mere assembler of GM's and Fords (and others) Australia has now matured into a stand alone, but partnering auto sector player. It has created its own engines (eg. an all-aluminum V8) and other drivetrains, platforms and models and makes that suit the Australian market.

Reversing the flow

The two countries of Canada and Australia are quite similar, both with huge deserts and small populations. And like Canada, Australia served the majority of the twentieth century as a branch plant location for American auto manufacturers. Indeed Ford and GM are common driveway monikers in Australia. However, there came a moment where Australia decided that merely taking orders was counter-productive to their own growth.

In the 1940's, a company called Holden designed a deal to buy GM vehicle platforms and build around them, thereby creating a unique Australian line of cars that suited their climate, style, and so important to such a nationalistic people, their own personality manifest in vehicular form.

This is where the similarities between the countries end and where Australia with only 60% of Canada's population simply out-thought, out-worked and outpaced its northern cousin.

Boldly outplaying Canada through the sixties and seventies as we were rationalized into the American auto industry, the iconoclastic Australians realized the next step in building a truly indigenous auto sector (and striking a deeply nationalistic note) was to evolve from simply building on an existing platform to the actual conception and manufacturing of those platforms.

> *"We did our own cars......we were working on our own destiny with that kind of spirit of survival."*
> ***—Peter Hanenberger** (chairman and managing director of Holden)*

> *"In many ways, Holden today is a microcosm of what we want GM to be,"*
> ***—Bob Lutz** (Chairman of GM North America)*

Holden

Antipodean powerhouse

- Exported Vehicles: 46,074 (2008)
- Vehicles and Components exported: $1,277 million (2008)
- Exports Total Engines: 212,482 (2008)

2nd tier and 3rd tier players

The list of seven countries below combines licensing platforms and in some cases creation of basic platforms. Some engineering is done, but at a much reduced level then the 1st tier players.

Russia	Philippines	Denmark
India	Czech Republic	Spain
Brazil	Australia	

The larger group below is made up mainly of countries that merely assemble. Although these countries simply license platforms from the manufacturers and rebadge and redesign them to fit nationalistic goals, the nationalistic importance of "manufacturing and selling" your own vehicles for your country is obvious.

It is seen to be better to take a foreign-produced platform and alter it domestically for internal consumption, than to do nothing at all as Canada has.

This is the group in which Canada sits. It is sobering to note that only about 12 of these countries are considered "advanced economies" by the IMF.

Argentina	Armenia	Austria
Belarus	Belgium	Bulgaria
Cyprus	Czech Republic	Estonia
Finland	Greece	Hungary
India	Indonesia	Iran
Ireland	Israel	Latvia

Liechtenstein	Lithuania	Malaysia
Mexico	Morocco	Myanmar
Namibia	Netherlands	New Zealand
North Korea	Pakistan	Philippines
Poland	Portugal	Romania
Russia	Serbia	Slovenia
Sri Lanka	Switzerland	Taiwan
Thailand	Turkey	Ukraine
United Arab Emirates	Uruguay	Vietnam

A lesson from Ethiopia

Surpassing Canada

Even Ethiopia has realized the lesson of producing its own vehicle. Although virtually none of the IP is domestic (Chinese and Dutch) it sees the value in having its own brand driven by its citizens. This is nation-building through the germination of industry.

Holland Car PLC was established in 2005 as a joint venture between the Dutch Trento Engineering BV and Ethiopian Ethio-Holland, each of them having an equal 50% share. The cooperation combines Dutch expertise in production processes and Ethio-Holland's local presence.

Like every emerging country, if Ethiopia wishes to create a 21 century economy it must graduate engineers, designers and technical expertise. Clearly they realize that following the leading economies into the auto sector is the means to accomplish this great goal.

NOTE: Production (although relatively small) has not kept up with demand.

Summary:

- Canada's business case in the auto sector resembles that of a fifty-first state, more than a country
- Australia and Sweden have proven indigenous sectors are viable
- Cheap labour and location cannot be our long term strategies
- Cars and nationhood
- Buying local, being local

Below is a list of the the top 9 countries in the auto sector. Notice that that each countries best selling car is from that country. Is this a coincidence? Nationalism and cars is linked at the most basic level. Clearly it is not an extraordinary concept to embrace the car as a means to further and indeed define a national identity. (Is a German car not reflective of that which is German?)

Country	Brand
Germany	VW
Japan	Toyota
France	Peugeot
Italy	Fiat
Australia	Holden
China	VW (by a small and diminishing margin)
England	Vauxhall
Korea	Hyundai
America	GM

Nationalism

Driving who you are

In polls most Canadians see foreign ownership as not ideal, but have known little else.

We must realize that there are great nationalistic forces at work in the auto sector. Those countries that have the technology protect it and use it for their own benefaction to be used as they see fit.

There is nothing new about this concept, the Germans protected their clockmaking abilities in 1500‘s. Today the Japanese keep most of the high-test assembly at home, allowing only the large bits to be assembled for foreign hands.

It is a fundamental fact of industry and nationhood: Increase your resources, guard your resources.

The auto sector of the future will reveal itself to those countries that are building and shepherding their resources today with blithe disregard for those who do not see the benefit of leading as opposed to following.

Foreign ownership

A benign force?

Every country protects against foreign ownership to some degree. Canadian laws control foreign ownership in:

- Banking sector
- Broadcasters
- Telecom
- Oil
- Transportation

And yet, the auto sector is 100% foreign owned

> *“(former) President of the EU, Sarkozy calls for Each EU country to to take stakes in key industries to stop them falling into foreign hands”*
>
> *He said "Stock markets are at historic lows. I do not want European citizens to wake up a few months from now and discover that European companies belong to non-European capital which has bought at the lowest point of the stock exchange."*
>
> *He said: "We should be able to manufacture ships, cars, aeroplanes in Europe because Europe needs a strong industry and on that policy the presidency will stand up and fight."*
> ***—Times online October 21, 2008***

Mexico and America

Taking Canada’s place

One of the paragons of financial reason in the auto sector is “build where you sell.” This is a time-held strategy to skirt national tariffs and it makes perfect sense to access lower waged countries where possible.

Mexico, with a population exceeding 120 million, now equals the Canadian yearly auto sales of approximately 1.5 million units. However, their market is burgeoning where ours is mature. These facts combined with Mexico’s far lower auto sector wage create an aligning of titanic forces that makes it only logical that U.S auto manufacturers build new capacity in Mexico rather than in Canada.

Furthermore America’s population centre is moving southward towards the American-Mexico border.

> *“Mexico is also better equipped to manufacture smaller, more fuel-efficient vehicles…”*
> ***—Dennis Desrosier; Canadian auto industry analyst***

Comparative auto sector wages:
Canada @ $35.00 ($70 with benefits and legacy payments)
Mexico @ $5.00

For 60 years Canada has been America’s key ally in the auto sector. However Mexico has been closing the gap on Canada’s position for the last 20 years. And in fact, Mexico recently surpassed Canada as the biggest exporter of auto parts into the U.S.

This fact was not well reported, however it landmarks a trend that will not reverse in light of that fact that wages are so critical to the future of America’s Big 3.

Auto parts imported into the U.S.
$22 billion from Mexico
$19 billion from Canada

Summation

The logical next step

Clearly Canada is in a deficit position. Our growth has been attenuated by powerful foreign companies and relationships that were based on convenience and a profound lack of national initiative.

Consequently Canada's auto success in the auto industry has been more of a vicarious experience in that we have watched as others have carved off small chunks of it for us while these innovators and owners reaped the large benefits.

The next step is obvious.

As we have protected our key resources and sectors, we must now engage in a similar proactive mindset and build now to prepare for transportation the next 25 years.

To bring about such fundamental change, we must implement an over-arching strategy that forms the framework for such a large undertaking.

The CARTA initiative is such a structure.

Section II: Strategy

Basic outline

The CARTA strategy is a multi-layered and staged process. It will take two to five years to complete. However the first steps can be taken now. Although based around the automotive sector, it will act as a stimulus in the following areas.

- Industry
- Economy
- Education

These are not a “wish list” of desired effects. The benefits indicated are supported by the example of every country that enters the auto sector.

It is for this reason that simply embracing the sector as other countries have, will act as a methodology to deliver Canada to the next level, industrially, economically and intellectually.

Parallel and partnering

Creating our own sector

It is the fundamental position of this initiative that assisting foreign companies instead of creating a domestic presence is not only absurd economics but also reflects a staggering lack of nationalistic thinking.

We can only imagine what the Germans and Japanese would think of this or indeed the Americans of their own auto industry.

Furthermore, it must be considered in the broad national sense as ethically challenged, for which taxpayer is more worthy of our support, ours or theirs?

We have charted a course of foreign ownership and we must literally pay for this lack of initiative.

However if Canada is going to provide financial help to foreign companies to keep jobs here, then it is only sensible to create a domestic position that does not answer to foreign board rooms. This logic is as old as nations themselves.

This new Canadian segment will not supplant the foreign companies but will work with the existing companies on our shores in the manner that all auto manufacturers do today: resource and expertise partnering.

Ultimately, developing our own parallel segment will allow us more protection and decision-making power in the advent of future industry retraction and international reversals both political and economic.

Government assistance

Rationale for Canadian ownership

- The Canadian government is already in the sector
- Every country is, or soon will be, assisting its own sector
- Eventually we must invest in Canada

France and Renault

Profit, public and private

The story of Renault over the last 40 years has been a dynamic one. In many ways their story reflects the malaise of the industry over the years. In the eighties they nearly went out of existence, but the French government stepped in and saved the giant car maker.

Since that time it has been 85 percent privatized but still pays a dividend to the French citizen shareholders.

This model shows that Government intervention can work when handled correctly, with the overriding notion in place being to re-privatize the company.

The Startup

Provincial and Federal investment with a sundown structure

The CARTA initiative is no different than any large venture with deep nationalistic benefits, therefore government will need to seed the basic investment. This model could be supported through debentures and bonds issued for Canadians.

These are examples of previous government investment that has been made in Canada and the reasons for this buy-in.

Agency	Value
Canadian National Railways	Providing an essential good or service
Export Development Canada	Fostering economic development
Atomic Energy of Canada	Regulating sensitive industries
CBC, VIA Rail, Petro-Can, Air Canada	Unity and nation building

Evolving from public to private

Air Canada and Petro-Can are examples of organizations that transitioned successfully to the private sector. These transitions were not easily won, but this had much to do with the difficult nature of the sectors and the restructuring of these entire sectors since the 1980‘s.

Indeed it was the challenges inherent in these sectors that inspired government assistance in the first instance.

Provincial buy-in

Seeding Canada's regions

Many foreign cars are largely built in their home countries (engines, transmissions) and then assembled in North America to avoid import duties.

This same system can be used within Canada but for a different purpose. The central production of a Canadian player could be centered in Ontario (due to the fact that it is relatively central and all the infrastructure is already in place.) However the final assembly would be undertaken in the regional factories that will service the smaller geographic areas.

This modeling of the world auto manufacturing system mapped onto a Canadian landscape is intuitively logical and accomplishes three critical goals:

- Local factories and suppliers will spring up to support the regional factories
- People who live in the provinces will be much more likely to support local industry and workers
- Provinces will see the value of buy-in with a "build where you sell" system that pays provincial taxes as well

Potential final-assembly plant locations

- Vancouver
- Calgary
- Winnipeg or Saskatoon
- Southern Ontario (many possibilities)
- Montreal
- Fredericton

Canadian partnering scenarios

This element of the initiative is critical, for the successful partnering of existing Canadian companies with existing resources in place will enable the project to be bootstrapped more quickly as opposed to having to rely on creating wholly new companies which will greatly increase start-up costs and time.

The examples below are based on models seen around the world, combining manufacturing end-product expertise and part expertise.

Bombardier-Magna

French and English, together at last

There are obvious massive nationalistic benefits to be won here with this iconic French Canadian firm of world renown in Bombardier and a English Canada, world stage player in Magna.

Although Magna has a non-competition clause that prevents it from directly competing as a manufacturer in Canada, this clause would be satisfied by partnering with Bombardier.

This strategy pays great dividends for not only does it benefit from Bombardier's great expertise in large manufacturing, but also a vehicle that has high Quebec IP (and perhaps even Quebec-designed) would be much more attractive within Quebec as there may be an indifference to a "English-Canada" automobile in Quebec.

Such is the power and symbolism of the automobile.

However, if there is any doubt that French and English can partner successfully, even brilliantly, the examples of the Airbus and the Chunnel are a resounding rejoinder.

It is clear that for political and societal reasons, French inclusion would be critical to selling Canadian autos in Quebec and selling the concept the Federal government. However input from all sections of Canada will serve this sense of ownership and this cross-Canada approach will work to great effect against any residual parochial instinct.

Bombardier-Magna-Nortel

A wartime lesson

It is widely agreed that Nortel is ready to be reformed into something new.

During the depths of World War II, company's resources were diverted by government edict towards products that were of high material necessity. For instance, Ford no longer made autos but instead B-29 bombers. Remmington was conscripted for the production of machine-guns, not typewriters.

The same logic can be applied with virtue to Nortel today. It has largely failed and is now adrift. Steering a section of its considerable engineering resources for a consortium would be a superb use of at least some portion of its intellectual capital.

Why Nortel?
A least 75% of new vehicle R&D is electronic, electrical and computer subsystems. Nortel is singularly placed in Canada to use its world class engineering expertise for automotive development.

> *"The way to fix Nortel is not to give it money, but to give it orders."*
> ***—Tom Brzustowksi, Former head of NSERC.***

Brzustowski instincts are extraordinary here, as he clearly sees the opportunity to refocus a still very capable company onto another target. It is this sort of "based-in-reality" thinking that drew the very best out of Canadian companies during the war. It will serve once again.

PetroCanada-Bombardier-Magna-Nortel-Ballard

A balanced equation

Perhaps at first an odd combination, but it is an unalterable reality that one day oil will no longer fuel our automobiles.

Whether this watershed event takes place earlier with the advent of new technologies or later when the actual world supply dwindles, at some point both Saudia Arabia and Alberta will have to do as Dubai is doing presently and get into hard goods.

The inevitability of this is nowhere more dramatically shown than in BP's (British Petroleum) name change to Beyond Petroleum. Petro-Canada will have to evolve as well. With its considerable expertise in fuel and financial resources, a consortium with other Canadian technical giants would be of enormous benefit to an automobile research but also as a catalyst to their own evolution.

Ballard is included in this consortium as a centre of research and with an actual Canadian vehicle to work towards, the research could become more focused towards assisted-hybrid approaches as being favoured in Europe.

Acquiring a current small manufacturer

One stop shopping, no waiting

This option has to be at least considered as a viable method to enter quickly, indeed it may prove to be least costly. The Chinese and Indians have acquired current manufacturers for the obvious reasons of purchasing a brand that is known, and acquiring IP that would take years to author themselves.

"We need their technology, brands, talent and sales networks"
—A Geely spokesman, speaking about Volvo

Swedish excellence for sale

Upon this writing Saab and Volvo are both possibilities, but now multiple suitors have stepped up to seriously pursue the purchase of Saab. No doubt, Volvo will be purchased as well in short order. However Canada should be in the bidding process to serve notice that we intend to play.

Both are small excellent companies with rich heritages of superior engineering and solid yet increasable market niches.

It is critical to consider that when a competing or new entry in the marketplace purchases one of these Swedish companies, it is buying into one of the most engineering-rich cultures in the world—an economy based on the creation of products not cheap labour and resources. For that reason alone both companies are excellent values that will pay long term dividends to their new owners.

Furthermore, purchasing an existing manufacturer would skirt any issues of unfair practices in the start-up phase that competitors may raise.

Partnering with Canada's biggest companies

The creation of large government tax incentives would encourage investment in a Canadian consortium to build a Canadian car company to compete internationally.

Financial Partners

These are the ten largest companies in Canada and are in possession of hundreds of billions of dollars of assets. They would make the most likely partners in any such undertaking of national scope.

Company	Sector
Royal Bank of Canada	Banking
Manulife	Financial Insurance
Bank of Nova Scotia	Banking

Company	Sector
Toronto-Dominion Bank	Banking
EnCana	Oil & Gas Operations
Sun Life Financial Services	Diversified Financials
Bank of Montreal	Banking
Canadian Imperial Bank	Banking
BCE	Telecommunications Services
Imperial Oil	Oil & Gas Operations

Technological partners

These companies listed below are the 15 biggest technology players in Canada and in many cases are the envy of the world. They would be natural partners.

Company	Sector
Alcan	Materials
Canadian National Railway	Transportation
Magna International	Consumer Durables
TELUS	Telecommunications Services
Bombardier	Aerospace & Defense
Nortel Networks	Technology Hardware & Equipment
Falconbridge	Materials
Quebecor	Business Services & Supplies
Onex	Technology Hardware & Equipment
Inco	Materials
Rogers Communications	Telecommunications Services
Barrick Gold	Materials
Teck Cominco	Materials
Research In Motion	Technology Hardware & Equipment

University-based research partners

A nation-wide initiative would be be created to foster the creation of IP from within the school system. This approach is used in Germany and companies like BMW keep a close and managerial eye on the progress of the education system. University-based research is undertaken and sponsored in large amounts in Germany and Japan for players like Honda, Mercedes, Toyota, etc.

Building strengths

The following are suggestions, examples of universities in Canada whose programs could support the CARTA initiative.

Institution	Program Strengths
University of Montreal	Design
Waterloo and P-Institute etc..	Electrical Engineering
UBC and Ballard	New drivetrain research
University of Calgary	Fuel and engine management
Dalhousie	Computerized subsystems
University of Windsor	System integration

Result

A national feedback loop with industry and our education system

Working with the “The Big 3”

Accepting our growth

There are those who may question whether “The big three” would be agreeable to a Canadian presence.

The very question is anathema to the concept of the nation-state. It must be clear that their permission in this is not required. Furthermore all Canada is seeking is equal status with America. We must remember that the US mother corporations are not overly motivated to have branch plants in Canada. Indeed, they see the great benefits politically to patriating these plants back into America, given the current pressure on them.

Our branch plants rely on the positive outcome of cost/benefits equations. To defend our position to the American head offices, we have adopted an open-wallet policy that has bordered at times on extortion.

We must not assume that the US head offices see their long term viability inseparably connected to the presence of Canadian plants. Indeed they may come to see it as a liability, particularly in comparison to Mexico.

Our assumption of our “intrinsic importance” in an American industry is not a position of strength for which we can profitably deal.

However, we must remember that we have our hand on considerable funding that they are gladly willing to accept for the promise of their continued presence here.

It must be understood that this is in no way a guarantee.

However due to our long history, friendship and proximity, it is sound to offer to partner with the Big 3 companies. This would mean the purchasing of acceptable platforms and drivetrains. But all the while we must be alive to the idea that if they are resistant, we will simply work with Honda, Toyota, Hyundai or whomever we choose.

It is critical to note that America is doing the same presently.

The marketplace

Canada first

Last year in Canada there were approximately 1.3 million vehicles sold. The overall value of the market is over fifty billion dollars.

North American manufacturers represent roughly half of the market in Canada. This “domestic” market share is of high interest to a potential Canadian automobile market presence, because market research shows consistently that these consumers buy “North American” based on the concept that it is better to support local than foreign.

How powerful is this pull? Even in face of data that indicates consistently that foreign cars are more reliable and very often considered better engineered, Canadians will buy North American under the logic that they are assembled in our factories and that one is supporting the economy.

Their logic is sound as far as it goes.

It is extraordinary that this rationale is applicable in the Canadian marketplace even though the actual word “domestic” should be “American.”

However misplaced this loyalty is, it is a great indicator of a similar resonance that Canadian consumers would feel towards an actual, real Canadian domestic.

As proven with the success of RIM’s Blackberry, give Canadians a smart, reliable product and they will buy it. Indeed the world.

The niche sector

Taking on the Honda Accord or Toyota Corolla is at best an extraordinarily complex and expensive task. The worlds best competitors have found this out, however other makers have done remarkably well at focusing on more niched vehicles.

Selecting a platform that is AWD is the most logical for a vehicle that would key on a “Canadian” approach.

To enter the market with strength this vehicle would need to embody the following qualities:

- Toughness
- Solidity
- Reliability
- Trustworthiness
- Sensibleness
- Safety

It seems obvious that marketing for such a vehicle would be focused on key Canadian consumer wants and desires that are unique to Canada or at least of heightened requirement.

These would include:

- The best cold weather starting
- The best window defroster (all windows)
- The best heating system

- The most robust yet compliant suspension
- The most rust-resistant vehicles in the world

Note: These qualities have a familiar Swedish ring.

Similar product targets

Potential market forecasts

An AWD crossover vehicle like the new Toyota Venza or Mazda CX7 is a an extremely prescient and market-savvy entry. Market analysis show that this sector is growing and the crossover or "Car plus" sector is where consumers are heading in large numbers. These qualities are also embraced in Subaru's line of products.

These products offer:

- Utility and configurability
- Comfort
- All weather ability
- Ride height

To assess a potential initial market share, we can look at Subaru as a manufacturer and the crossover as a segment in Canada.

- The Subaru Forester sold over 6,000 units in 2008
- The Subaru Impreza sold over 8,555 units in 2008
- The total Subaru sales of approximately 20,000 units in 2008 in Canada for roughly 500,000,000 dollars. ($0.5 billion)
- The 2008 market share for sport utility and crossover vehicles: 250,000 units

Even a 10 percent share (reasonable for a start-up company) of this segment would translate into 25,000 units at approximately 25,000 dollars equals

25,000 * 25,000 = 625 million dollars

With proper "Buy Canadian" incentives, this percentage would very likely be higher. This estimate is based on similar domestic startups based in foreign markets.

Proton in Malaysia	20 - 30%
Holden in Australia	15%
Tata in India	30 - 50 %
Geely in China	4%

Assuring Canadian taxpayer buy-in

Thinking creatively

The key to the launch of any project of this size and importance is the support of the Canadian taxpayer. And any government involvement wants private sector buy-in.

This private sector buy-in can initiate at the industrial and investment level, but it also has to originate from the actual product purchasers in the form of orders.

Build what they want

Taking orders to the potential partners

A very inventive and new-age approach would see a national web-based system that would have Canadians offering input in the type of vehicle that is wanted by the public.

This national campaign would entreat the pubic to assist in the naming, design and range of the product line. All for the very real good of engendering buy-in and ownership.

This "from the bottom-up" approach is extraordinarily powerful and in touch with todays under 30 consumer and reflects the reality of what the internet has created: a sense of democratic input and influence. This effect can be most recently witnessed during President Obama's campaign. His was a web-based undertaking and ground swell.

This same approach could be used with great impact.

The Canadian consumer puts down a completely government guaranteed deposit. This could be on the order of $1,000. This guarantees both public and private protection, for the government can gauge public interest and tune the funding accordingly, while the public will be completely secure in its investment.

At this point the accumulated number of orders is tallied for a type (or types) of vehicle required. (This system is similar to method used in the condominium construction market)

Existing vehicle manufacturers are then requested to bid on the order to partner with a new Canadian company based on the parameters of the proposed vehicle.

Benefits:

1. This approach is extremely flexible
2. The spool-up is exceedingly fast

Enticing large private-sector partners

Economic stimulus

Any large potential investor would seek guarantees against the risk of failure on such a large venture.

This risk could be minimized by a system where the government would act as, not as purchaser, but simply guarantor of half the loan purchase price of the car. Once again this does not actually necessitate financial output, but is simply a guarantee. This could be further split by provincial government guaranteeing the loan. Thereby splitting the provincial and federal government responsibility to 1/4 each.

This scenario could be used for the start-up of the company and perhaps last a year or perhaps two. This would inspire consumers to support the start-up.

A new car company

A new approach

It is not hyperbole to suggest that a Canadian car will be an event of singular scope in the history of the Canadian marketplace. An entry into the most important and exciting consumer marketplace is a superb opportunity to attract customers and create a new approach to the market.

This scale of event should not be wasted as a chance to create excitement in consumers who may need a new incentive to extract them from foreign cars; particularly with the young buyer. Indeed, so completely have the “Big 3” mismanaged this under-30 sector consumer that it may take a new approach to win their trust.

An opportunity presents itself to reinvent the car company.

Canada is the most resource wasteful county on earth and a truly green approach will resonate with young Canadians. This would take place by truly embracing “green” manufacturing.

This could include:

- Environmentally friendly products for the hundreds moldings, instead of plastics based on the newest textiles based on hemp, cotton, wool and recycled wood products.
- New levels of recycling of vehicles.
- Scrappage incentives that encourage consumers to scrap their car and by a new cars.
- A smart card with the ownership that partners gasoline stations to provide a at the pump tax incentive.
- A set of four snow tires on rims changed each year gratis
- An unconditional satisfaction guarantee

Exciting the consumer

It will be critical that this new company reflect a few basic qualities:

- A genuinely different kind of car manufacturer
- A unique kind of car
- A new approach
- Canadian branding
- A new standard of green vehicle manufacturing
- A revolutionary customer feedback loop that drives and redesigns the product

A defining product

Porsche’s lesson

The legendary German manufacturer started life as a niche vehicle. Today as the worlds most profitable automobile company and the preeminent technical consultant to virtually every car company on earth, they remain a niche vehicle builder.

Their success is based on an iconic product that has been true to its roots for almost 50 years. When a consumer buys a Porsche they are buying more than status, it is a philosophy, an ethos of germanic expertise.

Subaru has carved a similar niche philosophy (if not quite so stalwart) as a successful niche manufacturer.

The story of Saab

It has been said that the success of Saab did not make business sense. It was too small to work, but it was a successful company until GM bought it and under this guidance it has lost money in every year but one.

The reason for Saabs success in Europe was based on the fact that Germans did not resonate with French or English designs and cars. They saw Saab as "nearly German" and it fit the German personality and market.

If a German consumer was going to buy an excellent front wheel drive car for winter the Saab was preeminent and still is in Europe.

A similar approach is logical for a Canadian automobile company entering the market. It would focus on a single iconic product, establish a presence and then diversify as confidence and success builds.

Indeed there is no reason that unique designs would not evolve from the west, east or Quebec or places in between. This independence would be encouraged and seeded as the company evolves.

Green technology

International partnering

Key to the CARTA strategy is the encouragement of research and design and implementation of environmentally sound and resource sustainable power-trains. This goal is seen as both strategic as well as environmental.

However, due to the enormous cost of research in the areas of alternative drivetrains, the initial steps of CARTA focus on tax credits for green research in the university and in private sector. These would coincide with research grants and initiative, sponsored by NRC, MRI and AUTO21 amongst other government agencies.

Toyota, Honda, Mercedes lead the research in the actual application of cutting edge green technology into the market place. These (hereto for) highly profitable companies have the resources to lead this incredibly expensive research.

Due to the fact that it is critical to maximize the Canadian shareholders return on investment. CARTA's key platform is early entry into the sector. This necessitates the use of current technologies, but with early adoption of green drivetrains.

Drivetrain options

All current options will be considered. these will include:

- Full Hybrid (Toyota)
- Partial Hybrid (Honda, Ford)
- Internal combustion

The current state of development of Internal combustion engines is such that they are extraordinarily clean vehicles. The word "Green" can even be earnestly applied in their description.

As a an example of this latest technology, Porche’s newest 911 Turbo is so clean that when run in extremely dirty cities, what emerges from the tailpipe is cleaner then what is drawn into the engine.

Modular manufacturing

The future

In Norway there is a small but highly inventive car company called “Think automotive” that was assisted by Porsche consulting to create a modular manufacturing system and also the most efficient small assembly plant in Europe.

From that starting point, the car has been developed as a modular system. The main parts of the electric vehicle systems are:

- Traction (motive) battery
- Drive train
- Motor
- Motor controls
- Vehicle controls
- Charger
- AC/DC converter
- Reduction gear
- High voltage system

Gordon Murray, the famed designer of the MacLaren supercar has designed a modular car production system with interchangeable elements.

It appears that the industry is heading this way for it is far more flexible for new innovation and drivelines that now emerging very quickly. A very profitable strategy could focus on the implementation of a similar modular system being developed by Mercedes and others.

Specifically, a modular platform design that can accommodate a gas-electric, battery electric or hydrogen fuel-cell drivetrain. This could be accomplished through the use of sandwich-floor system that provides the basis for a wide range of electric drive systems.

The electric vehicles would typically have the following properties:

- A range of about 125 miles.
- A range-extended electric vehicle using a small gasoline engine to recharge the battery as it approaches depletion
- A hydrogen fuel-cell vehicle with a range of about 200 miles
- A "sandwich floor" architecture puts the battery pack and other components under the floor, creating a great deal of room inside the cabin while allowing the car a low center of gravity, agile handing and excellent crash safety.

These vehicles could also feature:

- Liquid-cooled lithium-ion battery typical maximum capacity of 35 kWh
- Chargeable in four hours when plugged into a typical wall outlet.

- Electric motor produces @70 kW (about 94 horsepower)
- A small (perhaps) 1.0-liter turbocharged engine to charge the battery

Potential negatives

- None of these platforms are used in plants currently in Canada, therefore factories would have to be created.
- These platforms are still be proven and their may be reluctance to license cutting-edge products from the creators of these platforms. In either cases, this will delay entry.

Selecting a proven platform

The quick and proven way to enter the market

To design and build a platform and engine from scratch is an enormously expensive and difficult undertaking. This could take 2-4 years and run from 1.5 to 4 billion dollars. These numbers are based on world-wide industry facts.

This sort of time frame is too long to serve well as a start-up. To remedy this we would select the option of licensing a proven platform, preferably one that is already being used in Canada.

There are several excellent ones from which to chose:

- Toyota Matrix/Corolla/Pontiac Vibe
- Honda Civic
- Ford Flex / Volvo XC90
- Chrysler Caravan

Of particular interest could be the Volvo P2 platform. A lengthened version of which is used by Ford for the Flex and Volvo XC90. It is of a size that fits a midsize vehicle which occupies a large portion of the market in Canada.

How much will it cost?

With the purchase a proven platform, the cost to enter the market will be cut in half and is estimated at between 1 to 2 billion dollars. However this price could be as low as 500 million. This depends on how much original IP is seen as necessary.

In the VW example of the new Routan minivan, the exact same approach could implemented where a portion of the line capacity at Windsor Chrysler is bought. The Caravan platform is licensed and reformed and tweaked to VW's standards.

The obvious comparison must be made that the Federal and Provincial government are funding the Big three to the area of 4-5 billion with no guarantee. This may not be the end of this bailout.

Do we have the ability?

- Magna is one of the biggest and most diverse suppliers in the world
- There are over 500 auto part manufacturers in Canada

- Canada has the world's best educated workforce *(IMD World Competitiveness Yearbook 2007)*
- United Nations Development index places Canada 3rd

Unused capacity

Many plants are sitting at rest, with more to come. For example, Kitchener framing (formally Thyssen-Krupp) is a world-class hydro-forming metal fabrication plant sitting idle.

Canadian core competencies

- Metal processing
- Advanced materials and technologies
- Information and communications technology
- Advanced design
- Visualization and manufacturing
- World leaders in fuel cell technology
- Lightweight materials, metal forming
- 3D industrial design

Canadians leading in the world auto sector

There are several Canadians leading the sector on a world wide basis. These are a few of the more illustrious ones:

Sergio Marchionne, Fiat Group CEO and Italian-Canadian

Karim Habib, designer of the new BMW 7 series.

Simon Lamarre designed the all-new Volvo C30 hatchback

Danny Garant designed the Audi A8 and also worked on the Q7,

Ralph Gilles Chrysler Group design vice-president designed the 300. Born in New York, grew up in Montreal.

Tom Lasorda Windsor, Ontario-born Chrysler Group CEO

Karl Schlicht Australian-born but Canadian-raised Lexus of Europe vice-president

Defining a new role

CARTA will ensure that we continue to partner with America, Japan and Korea and others to produce cars. The difference will be that we will emerge from their powers of decision over our industry and capacity.

This is a natural step all youthful industrial countries must make. But it has taken us too long to do so.

The present circumstances have coalesced to create the perfect opportunity for our county to move into the role of partner, not subordinate. This transition has been undertaken by Korea, Australia, China and India.

If we do not, we are telling the world and ourselves that we are simply not ready to evolve and grow and we will watch as other more driven countries pass us.

The great advantage that Canada has over these countries is that we already have the manufacturing capacity, infrastructure and raw materials resources completely evolved and ready.

It is our time as it never was before. This simply requires our will to seize the opportunities laid before us.

In the months to follow, we must think strategically and most importantly, nationalistically, just as the new American President is doing. Just as the EU President is doing...Just as the German Chancellor is doing.....They are all right to do so.

The road ahead

A Canadian strategy

It is difficult to overstate the importance of the auto sector. And yet there have never been any steps taken by any government to patriate this sector within our own borders as a native Canadian entity.

The thinking may have been that America's goals were exactly the same as Canada's and what was good for America was therefore good for Canada. This may have been the case in the good times, but the wheel has turned. America is not Canada.

We must ask the simple question; if we do not own a share of the auto sector, then why is that the rest of our G8 partners do? What do they see that we do not? It is possible to imagine any of these countries willfully releasing to foreign interests the keystone of their industrial capability.

Nationalistic goals

Canada on the world market

In a recent poll, Canadians cited the Canadarm as the 4th most pride-inspiring icon of Canada. Where would a truly excellent world-marketed Canadian car place?

The death of the Avro Arrow was a lamentable Canadian story. The final chapter ended an era of innovative dreams, soaring aspirations, Canadian inventiveness and national creativity.

If we had continued with the development of the Arrow, it is obvious that we would have been a major force in the aeronautical industry by the seventies, providing our air force and others with our products.

Further, we likely would have emerged with a much-heightened role in space research. In other words we would have been a more advanced technologically self-sufficient country today.

Defining the ethereal

The stuff countries are made of

If we were to ask any person from Germany, Japan, Italy, Sweden, France or Britain to name a product that symbolizes that countries intelligence, innovation and creativity, can there be any doubt that they would answer in terms of their favorite national car manufacturer?

Do not BMW, Mercedes and Porsche capture the minds of the world as brilliant samples of German excellence? Does not Toyota, Nissan and Honda typify Japanese technological prowess? Are the French not justifiably proud of Renaults success in the racing world and on the streets of France? Italians and their Ferraris…..the British and its Austin Martin or Rolls Royce?

Can a Canadian truly mention a Ford or Lexus as examples of Canadian excellence, innovation and engineering and design? Both are “made” here but do these products truly represent Canada around the world?

The time has come to acknowledge our total dependence and deficit in this industry and leap forward into the market that bears such nationalistic fruit.

To those who would ague that the gas powered automobile is on its way out…..we must agree this probably is true and therefore we must be ready to join the countries that are preparing the next wave for the world…not simply hoping that these innovators will deign to use our workforce.

Canada loses many of its engineers to the south and to foreign companies because we do not provide the engineering opportunities here in this country. A burgeoning Canadian based auto sector will provide enormous long-term opportunity.

But it will do far more than that.

It will show our young people that there are Canadian companies that compete on the world stage in the most important and some would say, the most nationalistic industry in the world. It will show our young engineers and technical students the great benefit of staying in Canada, working in companies that are rooted here in fact and not simply in name only.

It is time for Canada to take a step.

Section III: First steps

CARTA's immediate plan is the creation of a research group to investigate ways and means. This stage of the initiative would require funding from a government agency for a six month project.

The team would include experts from Finance, Legal, Marketing, Trade, Industry, Science, Engineering, Industrial Design and Education. Further, a representation of political parties would be advisable as well.

A nationally-based website would be initiated to gather public input and interest.

The results would be presented to parliament and media through the funding agency.

The research would be based in the following areas:

Potential partnering scenarios

- Current OEM part manufacturers in Canada
    - Every part manufacturer in Canada (@ 500) is contacted to investigate their capability and their interest in becoming part of the potential supply chain.

Provincial partners

- The financial and political buy-in for each province is seen as critical to the success of CARTA plan. Each Province is investigated for interest in the project. The initial connection will simply seek to get reaction and then to actively seek each provinces involvement.

Financial partners

- Investment partnering from the financial sector will be investigated. All of Canada's financial institutions will be polled for their interest.
- A round table of potential partners will be convened.
- Various financing scenarios will be explored and investigated.

Industrial partners

- Every mid and large size industrial manufacturer or related industry is contacted and investigated for interest and capability. Textiles, Glass, Plastics, Steel, Aluminum, Magnesium, Titanium, Computer systems, electronics, design and imaging, IP, Rubber, Synthetics, Chemicals, mechanical pressing and manufacturing, land owners etc..

University and College partnering

- Strengths and expertise of Canadian schools are investigated
- Schools are investigated for interest in national programs that would include industrial design, manufacturing, financials, advertising and media, textile processes, computer science, electronics etc...

Legalities: national and international

- Research will centre around the implications within NAFTA and also other international trade questions.

Design and manufacturing

- Assessing Canadian factory capacity
  - Auditing and analysis of dormant auto industrial capacity in Canada
  - Categorization and profiling of unused factories
  - Investigation of potential industrial sites and land
  - Design firms are investigated both domestically and internationally
- National scrappage incentives
  - The European model is investigated that scraps old vehicles for financial recompense to consumers up to $3,500 per vehicle.
- A national dealer network
  - Here investigation centers on the purchasing of dealerships across the country.
  - Buying existing storefronts was the strategy used by Petro-Canada when it bought up BP and Gulf gas stations.

Platform research

- Research is centered around investigating potential platforms from existing manufacturers

Auto sector in foreign countries

- A comprehensive analysis of the G8 on the following criteria
  - Net economic benefit of indigenous sector
  - Number of engineering grads in the sector
  - Number of scientists in sector
  - Related industrial capacity
  - University / auto sector relationships
  - Nationalistic spin-offs
- In-depth analysis of business cases of niche and small market companies
  - Holden (Australia)
  - Saab of (Sweden)
  - Volvo of (Sweden)
  - Proton of (Philippines)

Canada has the talent, creativity and the industrial capacity to develop a domestically-owned and-operated auto industry. Let's begin.

Drive North.