

JDI ROUNDTABLE **ON MANUFACTURING** **COMPETITIVENESS IN NEW** **BRUNSWICK FORUM**



REPORT: 2019 JDI ROUNDTABLE ON **MANUFACTURING COMPETITIVENESS IN** **NEW BRUNSWICK FORUM**

Sept. 25-26, 2019
Fredericton, New Brunswick

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A Message from Dr. Herb Emery

As the Vaughan Chair in Regional Economics at the University of New Brunswick, my mission is to advance our understanding of how New Brunswick's economy operates within the national and global context. Small regional economies like New Brunswick are often treated as afterthoughts in Canada's economic reporting, not as distinct economic entities with unique conditions, challenges, and opportunities. With this information, we can develop strategies and policies that improve the well-being of New Brunswickers.

Getting down in the weeds of New Brunswick-specific data helps us identify both the unique and the not-so-unique aspects of New Brunswick's economic landscape. It was in my initial study of New Brunswick's fundamentals that I realized the significance of the province's manufacturing sector.

New Brunswick has by far the largest and most resilient manufacturing sector in Atlantic Canada. While other aspects of New Brunswick's economy align with our fellow Maritime neighbours, manufacturing stands out as a sector with a disproportionate number of medium-size businesses with well-established export links, domestic head offices, and a history of weathering the region's economic storms.

Manufacturing offers another advantage over service-based sectors. New Brunswick has moved into an era of labour shortages and is facing inevitable population decline in the coming decades. Economic sectors that rely on seat counts and lower-than-average wage rates will have a harder time surviving in New Brunswick. Manufacturing offers the potential to increase productivity (and provincial gross domestic product) independent of population growth. To do this, New Brunswick manufacturing must invest in productivity-enhancing equipment, machinery, and processes.

Building on our existing economic strengths makes sense. We have a solid base of manufacturing in the province, evenly dispersed geographically. A rising tide in manufacturing will quite literally lift boats in every corner of New Brunswick. But for the required investment to happen, manufacturers must judge it profitable to do more business here.

This initial JDI Roundtable on Manufacturing Competitiveness in New Brunswick looked at the overall state and potential of manufacturing in our province. Over the next year, our research team is looking into specific policies and conditions that are hindering our sector from moving into higher gear.

We look forward to working with manufacturers and policy makers over the next year in preparation for the 2020 JDI Roundtable.

Dr. Herb Emery

Vaughan Chair in Regional Economics, UNB
What is the JDI Roundtable on Manufacturing

Competitiveness in New Brunswick?

The JDI Roundtable on Manufacturing Competitiveness in New Brunswick was launched less than a year ago with a founding gift of \$2 million from J. D. Irving, Limited, to the University of New Brunswick.

Its goal: to improve manufacturing competitiveness in the province through arm's-length evidence-based research and public engagement.

Overseen by J. C. Herbert Emery (Vaughan Chair in Regional Economics, UNB) and the Atlantic Institute for Policy Research (AIPR), the Roundtable is establishing a coalition of New Brunswick-based manufacturers to identify common challenges that can be addressed and overcome with frank discussion about policies and economic trends.

The research is examining ways to build on our unique manufacturing strengths in New Brunswick and leverage our existing resources with value-added manufacturing.

The signature activity of the Roundtable is its annual Forum. On September 25 and 26, 2019, manufacturers, business leaders, policy analysts, academics, government officials, and interested members of the public gathered in Fredericton, New Brunswick, to hear the latest research, discuss the challenges facing manufacturers in New Brunswick and Atlantic Canada, and explore ways to leverage our strengths and move forward toward a more prosperous future.

The discussions that took place at the 2019 Forum will inform the next round of research and the 2020 Forum.

“Can Anything Save New Brunswick?”

In March of 2016, MacLean’s news magazine published an article that described New Brunswick as “a drive-through province,” a place with “an economy in free fall, more deaths than births and an ugly language war to rival Quebec’s.” A close look at the province’s economy, population demographics, and overall culture led the article to ultimately ask, “Can anything save New Brunswick?”

Despite the overt pessimism behind this question, MacLean’s isn’t wrong about the negative state of growth in New Brunswick. From 2011-2016, it was the only Canadian province to experience a population decline; the median age of its population is 47.9 years higher than the national average; and growth in GDP more often than not lags every other province.

While MacLean’s did not focus specifically on the decline of New Brunswick’s manufacturing sector, this has also been suffering as a result of the problems plaguing the rest of the province. Manufacturing is now facing a labour shortage, decreased investment in Research and Development (R&D), and the challenge of attracting and retaining immigrants – all dilemmas that the 2019 JDI Forum brought to the table.

In 2017, the New York Times wrote: “No other sector has as much impact as manufacturing in generating the jobs and productivity gains that can make a nation rich.”

However, the JDI Roundtable serves an even greater purpose beyond identifying the struggles facing New Brunswick manufacturers. In what could be considered a response to MacLean’s question, the Roundtable met to discuss what specific actions can be taken to improve New Brunswick’s manufacturing sector.

In 2017, the New York Times wrote: “No other sector has as much impact as manufacturing in generating the jobs and productivity gains that can make a nation rich.”

While manufacturing may not be able to “save New Brunswick” on its own, growth in manufacturing competitiveness holds the promise of increased employment and prosperity – factors that will boost the province’s economic status in Canada and make the region more attractive to working-age individuals and their families.

Opening Remarks

Mr. Jim Irving, co-CEO of JD Irving Limited

In his opening remarks, Mr. Irving summarized the overarching theme of the 2019 Roundtable: manufacturing competitiveness. “We all have to be competitive,” he stated. “We live by that every day. But it seems like the day-to-day pressure of just paying the bills occupies all our time.”

As a solution, Irving looks to the University of New Brunswick and its faculty as resources. New Brunswick can, and should, use research and independent thinking to find out what constitutes manufacturing competitiveness around the world and to determine what New Brunswick and its manufacturing sector need to do to have good competitive public policy.

“We’re not big but we have to run in the big race.” ~Jim Irving

The best way to “run in the big race,” so to speak, is to use the university assets that are available to get feedback from the various industries and commercial players in the province.

Overall, the findings of the JDI Roundtable should be used to promote consistency within public policy, which tends to change whenever the province switches Premiers. The findings of the Roundtable could be used to avoid such inconsistency and to help the manufacturing sector stay on course.

In the end, Irving argues, the Roundtable Forum is about producing real, tangible results: “If we don’t make anything happen today, shame on us.”

New Perspectives on NB Manufacturing Trends and Determinants, and What They Mean for Growth of the Sector and the Economy

Herb Emery, Director of AIPR and Vaughan Chair in Regional Economics at UNB

There are certain popular misconceptions about manufacturing. On the one hand, people see manufacturing as a “sunset industry” – or, in other words, old. On the other hand, there is an unfounded assumption that manufacturing naturally declines in all high-income economies. This belief comes from the idea that workers in a high-income economy are too expensive if one wants to compete in industry.

In New Brunswick, the manufacturing sector is the largest sector relative to the province’s GDP – the fourth largest in Canada. As such, the manufacturing sector could be approached as the province’s “wealth-creating” sector, driving New Brunswick’s ability to pay for public services. Most of the province’s exports come from manufacturing, 90% of which are exported to the United States.

When looking at manufacturing value-added, New Brunswick has remained surprisingly stable compared to its neighbours. After the 2008 economic recession, the state of Maine never recovered in terms of value-added; in Nova Scotia, manufacturing value-added declined even before the recession. However, in New Brunswick – despite an initial decline similar to that of Nova Scotia – real value-added in the manufacturing sector has since seen stability that surpasses even that of Ontario. While the rest of the provincial economy “flat-lined,” manufacturing in New Brunswick remained resilient.

Nonetheless, there are various problems that continue to face the province’s manufacturing sector. For one, in spite of an employment decline of only 11%, there has been no productivity growth in the sector, and as a consequence our manufacturing productivity continues to fall behind other Canadian provinces and U.S. states with which New Brunswick competes for investment dollars.

Likewise, the Canada-US exchange rate is currently driving New Brunswick’s financial wealth, and this creates a financial atmosphere similar to a commodity-based economy in which external factors drive decisions and profitability. Emery describes this as like “hanging onto a bucking bronco.”

In the end, there are several main points that challenge manufacturing misconceptions and depict the current state of the manufacturing sector in New Brunswick:

- Manufacturing is an important sector for NB’s economy
- Competitiveness has been largely driven by external factors like the exchange rate, not by any concentrated policy effort
- High degree of trade exposure makes it vulnerable to policy conditions in NB
- The sector requires investment-driven modernization since historical way of adjusting (labour) is not available

Productivity Trends and Drivers in New Brunswick's Manufacturing Sector

Andrew Sharpe, Executive Director, Centre for the Study of Living Standards

There is a dire need for greater labour productivity, and this is faced with the misconception that higher productivity leads to a need for fewer workers and, as a result, unemployment. This is incorrect. Instead, increased productivity will lead to an increased demand for jobs in other sectors.

Moreover, productivity does not necessarily mean working harder, but rather working smarter in the long run, which is the only sustainable way to increase the province's standard of living (measured as GDP per capita).

In the Business Sector, New Brunswick has seen a significant decline in productivity, which recently fell from 82% to 78%. Since 2008, growth in the business sector's total output has been negative and, in short, the second worst in Canada.

In the Manufacturing Sector, however, New Brunswick has fared better, with a productivity gap of only 0.5 percentage points below the national average (compared to a gap of 1.8 percentage points in the business sector).

A large proportion of value-added in relative real output in manufacturing comes from the petroleum refining industry, which is extremely capital-intensive. Yet, even when the petroleum refining industry is taken into consideration, industry in New Brunswick is still only at 80% of the Canadian average (and only 70% when petroleum is removed). However, it is fifth among the Canadian provinces, which is a large improvement over the business sector output.

However, we can pinpoint one key factor affecting the weakness of the NB economy overall: namely, innovation.

The number of employees in industry in New Brunswick (approx. 30,000) has remained nearly the same since 1997, with the food sector employing the most (10,000) and seafood processing employing half the people working in the food industry. The next most important sectors in terms of employment are wood, paper, and fabricated metals.

However, employment levels do not necessarily match levels of real output and levels of productivity, as petroleum and coal products (rather than paper) are third in terms of real output, and the primary metals industry exceeds even petroleum and coal products in terms of labour productivity. Unlike other

major industries, primary metals are what Sharpe calls the “real winner” in terms of growth in productivity rates, which are far above the national average.

When thinking about productivity growth from an economist’s point of view, growth factors include elements such as labour quality, capital investment (capital per worker), and other factors such as organizational changes, economies of scale and scope, capacity, and so forth. Yet, certain factors that broad economic theory overlooks need to be explored more fundamentally.

In short, it is difficult to point to any one factor that explains New Brunswick’s relative decline in productivity, as this is linked to multiple structural factors associated with the provincial economy.

However, we can pinpoint one key factor affecting the weakness of the NB economy overall: namely, innovation.

New Brunswick is weak in terms of business sector Research & Development (R&D), with New Brunswick R&D at around \$97 per capita and the Canadian average at \$455 per capita. How to improve R&D in New Brunswick is an extremely difficult question to answer.

Finally, although New Brunswick has a declining productivity performance, it is important to note that the overall performance of the manufacturing sector has not declined to that of the national average.

Presentation Discussion

The lack of investment comes down in part to whether firms in New Brunswick feel it will not be profitable to invest money. It is possible that with taxes in the United States coming down, people compare tax rates and find that New Brunswick has not decreased its taxes or remained competitive with other jurisdictions in this matter.

Regarding cheap labour, firms are often faced with the decision to either automate or find inexpensive labour. The latter results in less incentive to automate.

Processes regarding automation and developing technology are already underway, but there are issues with scale and getting the timing right. We need to ask: Do we have firms ready to take this on when supports are there? Do we have the capital to make the transition? Where does capacity come in?

Most manufacturing businesses in NB are locally owned. While it is possible these might decide it is more profitable to switch operations to the US due to the lower tax rates there, the majority do not have that option, as they produce using the natural resources in NB. US tax rates are likely not a key factor in the declining performance of NB manufacturing, though we should continue to monitor the situation.

NB Industries must remain competitive, and the exchange rate is a key factor in that. However, when thinking about exports, we need to consider not only value but also the value of inputs. It has often

been stated that NB has a high level of exports over GDP, but these statistics are misleading. For example, Irving refinery is a major exporter in NB, but contained in the value of its exports is the cost of petroleum.

There are many success stories of development in New Brunswick, but there are not enough. We don't know why some firms develop and others don't.

Does our society value entrepreneurial pride? Are firms willing to stay and build community growth?

One example of this can be found in a comparison of Cap-Pelé and Port Elgin. In the 1950s, Cap-Pelé was a poor community, and Port Elgin was prosperous. Now, the opposite is occurring: Port Elgin is a town in decline, and Cap-Pelé has a plastics plant and herring operations. The primary difference is that the Anglophones in Port Elgin left the province.

We need to be committed to the province – to staying.

PANEL 1

Meeting Skills and Labour Supply Needs of Manufacturers in the Province and Region

Evidence of shortages, cyclical and longer-term drivers of labour market transformation, and policy options for addressing the challenges.

Moderator:

Adrienne O’Pray, President and CEO, New Brunswick Business Council

Panelists:

Don Drummond, Adjunct Professor & Stauffer-Dunning Fellow, School of Policy Studies, Queen’s University

Stephen Lund, CEO, Opportunities New Brunswick

Andrée Caissie Savoie, Vice-President, Customer Experience & Corporate Affairs, Imperial Manufacturing Ltd.

Alexandra Durant, McKinsey and Company, Montreal

Adrienne O’Pray: We Knew This Day Was Coming

Twenty years ago, there was a conference in Moncton called Vision 2020. A demographer there presented what New Brunswick could expect in terms of shifting demographics and projected that NB would be facing labour shortages as baby boomers left the workforce.

At the time, it was difficult to imagine a future without an abundance of NB labour. Yet, here we are – full-on into a shortage. It is critical that, moving forward, we don’t have Vision 2040.

Instead, we need to think about how we shift into action now.

Andree Caissie-Savoie: The Red Tape Around Labour Supply

From an employers’ perspective, one of the difficulties facing manufacturing in New Brunswick is a shortage of labour supply. In certain areas of the province, the biggest competitor for manufacturing

firms is not other firms but, in fact, Employment Insurance (EI). In addition to the existing labour shortage, employers face challenges when trying to bring in workers from elsewhere.

The immigration process is quite complex, and access to information is difficult to attain. The province may have a goal of bringing in immigrants to help on an economic scale and to grow business production, but the process itself is very difficult.

Fisheries and agriculture are not the only seasonal employers in New Brunswick. Yet, if other employers wish to hire Temporary Seasonal Workers, they are required to pay them wages comparable to those paid outside New Brunswick. Cost of living and salaries in New Brunswick are simply not comparable to those in places such as Vancouver.

Bringing in automation is meant to increase productivity, not decrease employment. Yet, even when investing in automation, things don't happen as fast as people believe they do. It is expensive to buy the equipment and it is expensive to invest in the people to program it.

Stephen Lund: You Can't Cut Your Way to Prosperity

The manufacturing sector in New Brunswick may be resilient, but it is still facing difficulties. There are three main challenges and opportunities the province needs to focus on:

- Automation
- Investment in people, equipment, and research
- Labour shortages

Automation is coming – and fast. It is going to revolutionize many industries, and manufacturers should be aware of this fact, and they should be ready.

New Brunswick needs to invest more in people and in equipment. Canada currently spends only 1.83% of its GDP on R&D, which is incredibly low compared to countries such as Israel (4%) and South Korea (3.9%). Further, the percentage New Brunswick spends is only 80% of the national amount. R&D investment is sorely lacking not only in New Brunswick but in all of Canada.

Finally, the province needs to get a handle on labour shortages. If we don't bring in immigrants, we are – quite simply – in trouble. When faced with competition, Atlantic Canadian firms first turn to reducing costs, whereas other jurisdictions usually invest in technology and increased marketing. However, you can't cut your way to prosperity.

We need to be forward-looking. After all, in the coming years, it's very likely that 50% of our current jobs simply won't be around.

Don Drummond: Let the Adjustment Mechanisms Go

From an economist's point of view, labour revolves around the principles of supply and demand. Given the existing labour shortage, one would expect wages to go up. However, New Brunswick has gone through a period in which wages hardly moved at all on a real basis. Capitalization (or investment in machinery, equipment, and automation) similarly has not seen an increase – however, in this case, the lack of growth is present not only in New Brunswick but also across Canada.

We often hear about “skills mismatch,” and while being under-skilled can indeed be a problem, there is a misconception that being over-skilled is equally problematic. The latter, however, should not be an issue for employers. Regarding the former, employers may often complain that employees are not ready for the job. In short – they should not be ready! Universities simply cannot teach everybody everything they should know for their first day “on the job.”

The labour force participation rate in New Brunswick is low, and not only because the province has a large proportion of older workers. Participation is low across the board. For instance, the Ontario Trucking Association has hardly a single female trucker and hardly a single recent immigrant. Businesses aren't tapping into this pool containing 1/3 of their potential labour force. They are going to need to adjust – to make industry more comfortable to other types of people. In the next 20 years, 20% of the labour force growth could come from Indigenous populations. In Saskatchewan, this could be as high as 70%.

It is important to be more specific when we talk about immigration. We have been pushing for immigration simply for the sake of immigration, and as a result we have not done well at selecting and have done even worse at integrating immigrants. We need to be precise, right from the selection process, regarding what kind of demands we need to fill.

Finally, we need to change the culture around manufacturing and around work more generally. A recent survey asked young people what they believe plumbers earn, and respondents guessed only 1/3 of their actual earnings!

In every discussion of a job shortage, it is taken for granted that somebody will retire on schedule. However, surveys all show that people aged 55 to 70 years old usually go on to work in some capacity – just not in the same way they did before. A large portion of the retiring workforce wants to stay engaged in some way, but we have been designed culturally, mentally, and pension-wise to either continue to work in the same capacity as before or quit completely. Employers should create opportunities for their older employees to remain engaged in different capacities. So far, we have operated under the presumption that labour force industries are fixed. However, things can, and should, change.

Regardless of how we specify the problem, the solutions are the same. We need to let previous adjustment mechanisms go. There has to be adjustments in wages, increases in investment, and some training.

Alexandra Durant: Working with What You Have

The best way to make sure you have enough labour to fill the positions you have is not to look for more people but to get the most out of the people you already have. This doesn't mean requiring that employees work overtime but instead having a relentless focus on implementing techniques proven to improve activity.

When done properly, manufacturing works! We can use automation to remove the most dangerous tasks and the jobs that take the most time. For example, electricians don't want to spend their time filling out forms to receive permits – they want to do the work they studied.

If we look at going digital, there are even free apps for tasks like digitizing maintenance inspection routes. The result: spending less time on forms and more time in the field.

It isn't easy to improve productivity by 10-20%, but it is achievable. Clients who do so first tend to take the time to set ambitious projects and hold their teams accountable for them.

Improving productivity benefits more than just the economy, but if people don't understand how change will benefit them personally, it can be hard to motivate them to change. This can be addressed by writing or thinking of compelling stories that touch the hearts of employees.

If you want employees to be on board, you need to train them, and you need to allow them to make mistakes. Allow them to develop the strategies they need in order to improve productivity. Go to the people you already have and ask them how you can make their job more productive, better, and safer. If this doesn't lead to anything bigger, it at the very least leads to happier employees, and happy employees are often the most productive and the most loyal.

There's a conception among management that front-line employees don't actually want to be productive, but front-line employees are grateful when people help them – they're waiting to do work. It is the middle-layer management that has to change.

Discussion: How to Move Forward

We all own the labour market and labour force development in New Brunswick. However, we do need someone to take the lead – to bring all the stakeholders together and run the labour market. We have to ask, who should be the convener? Who can make sure we work together on solutions?

Right now, people are still relying on the government to provide information on solutions. Yet, while the provincial and federal governments are logical leaders, everyone has a role to play. Labour force groups could be set up to help companies identify where their shortages are, what they need, and how to address those needs.

The business and education sectors also could be driving labour force development, stepping in and specifying job requirements. However, when we think about who should facilitate even that, it's difficult to think of anyone other than government.

There is no single model that has been proven to work, but together, multiple different models could bring about desired change.

To broaden the discussion about competitiveness in New Brunswick, it needs to more apparent that all New Brunswickers win when the province becomes more competitive. There is currently a great deal of distrust surrounding these conversations, and political will is essential if we are to move forward. Governments will not go against things being supported by the people. Therefore, it is key that manufacturers build a coalition of support on issues of wealth creation – rather than wealth distribution – that offers coverage to a government.

New Brunswick could also take initiative to put together its own policy regarding immigration and sell that policy to the federal government. For example, language and education shouldn't be a barrier to immigrant entry into the province. Moreover, if a small business currently has to provide the overhead to bring in immigrant workers, that is a big cost to cover. It's easy to get discouraged, quit, or move elsewhere. When the process is too tough to get through, people simply stop trying. While the government should continue to take a leadership role in this matter, it could make the process easier for employers. New Brunswick could take initiative in changing the basic fundamental requirements for immigration, picking countries to partner with and supporting assimilation. We could streamline the process and be a model for the rest of Canada to follow.

The Atlantic Immigration Pilot program has moved the New Brunswick forward in this matter; and given this momentum, now is the time to act on suggestions. Before taking recommendations to the federal government, however, it is essential to need to hear from employers in the private sector about what the province needs. The manufacturing sector therefore needs a convener to establish the top 3-4 items that can be moved on immediately. We need action items we can agree on.

On the educational level, the Department of Early Education and Childhood Development (EECD) is actively working with businesses in New Brunswick develop opportunities in youth. At the K-12 level, they are operating a new branch in experiential learning with a focus on skilled trades.

In the past, when traditional skills were removed from schools, transferable skills were not valued enough. Now, New Brunswick needs to focus on lifting the idea of the trades back up so they're no longer viewed as a secondary path. This could be accomplished through educational institutions reintroducing 'industrialized education' without the sexual stereotypes that were previously attached.

It is important to expose people to the wide range of opportunities out there. New Brunswick doesn't necessarily need more industrial workers. It needs some industrial exposure for everybody. The momentum created by EECD and Future Ready NB can be used for this purpose to create better links between educational institutions and employers.

Finally, so far, most discussions have centred around attracting labour through wages or financial incentive, and this overlooks the role of happiness and job satisfaction as incentives. For instance, it is less incentivizing now to come to a place where your kids will have to go to a school with limited resources. Work culture has changed as well: people are now looking for 5-year segments of work, for opportunities to grow and improve. Opportunities for professional development and more time off could function as new incentives for people to come to different companies. In short, everyone is looking for a good life that will make them want to stay.

PANEL 2

Investment and Productivity Growth in Manufacturing

Trends, determinants and what they tell for how to improve the competitiveness of manufacturers in the province and the region.

Moderator:

Ron Marcolin, Divisional Vice-President, New Brunswick and Prince Edward Island, Canadian Manufacturers and Exporters

Panelists:

Bruce Simpson, Senior Partner, McKinsey & Company Canada

John Elink-Schuurman, VALET Program Manager, International Trade, Virginia Economic Development Partnership

Greig Mordue, ArcelorMittal Chair in Advanced Manufacturing Policy & Associated Professor, W Booth School of Engineering Practice and Technology, McMaster University

Denis Caron, President and CEO, Belledune Port Authority

Bruce Simpson: The Lighthouse Concept

Despite the fact that New Brunswick has strengths, it feels beaten up – like the home team has lost a few games. Yet, there should still be a built-in confidence in the province.

In Scotland, Glasgow underwent an economic disaster in the 1970s, prompted by the closure of steel mills, shipyards, and plants. However, in the 1980s, the city responded with several things New Brunswick could imitate. For one, citizens came up with a stakeholder engagement strategy that led to the slogan “Glasgow’s Miles Better” (or, unofficially, “Glasgow Smiles Better”). Ten years later, in 1990, Glasgow was named the European City of Culture.

If Glasgow was able to turn the negative state of its manufacturing around, New Brunswick should be able to do the same. Perhaps New Brunswickers should get together and develop a really strong slogan that touches the heart and soul of the province. Maybe “New Brunswick Wins Globally” – because it can.

One way to boost manufacturing in New Brunswick is to adopt the “lighthouse concept,” through which individuals identify facilities that are already doing well and that are going to continue to do so. For New Brunswick, that could be the refining industry.

They then look at these facilities and ask what it would take to make them absolute world leaders. What technology, skills, access to markets, and reduction of red tape would make these lighthouses absolutely fabulous? Manufacturers would then extrapolate from the lighthouse experience to ask what jobs they need and what people to reskill and apply this practice at the provincial level. The lighthouse concept should be underpinned with the reduction of red tape and with massive immigration. If Iceland can accomplish this in the middle of the ocean with no surrounding markets, there’s no reason NB can’t lead the way for Canada in the next few years.

John Elink-Schuurman: Growth lies outside North America’s borders

More than 80% of the world’s consumers live outside North America. Those manufacturers focused on exporting their products grow faster and tend to be more resilient. Companies that export manage risk more effectively and are typically more productive, paying their employees about 15% more than non-exporting companies. Moreover, they are more innovative by practice – they have to be, if they are to compete with companies around the world. In many ways, exporting sales is a contact sport, and while it is riskier, it can also be very lucrative.

In Virginia, there are certain workforce development programs that New Brunswick could learn from. The VALET program, for instance, specializes in export acceleration and provides some financial support while mentoring companies in export manufacturing and looking for customers in international markets. VALET exists alongside the New Custom Workforce Development program, which links companies with community colleges and universities to recruit people and train them for specific jobs/equipment for specific companies, shortening the cycle of hiring.

In a nutshell, economic expansion involves going out and building relationships with existing industry champions and finding out what their workforce development needs are, fostering a relationship-based culture of economic expansion.

Greg Mordue: Lessons from the Automotive Industry

The automotive industry has been vitally important to Ontario since 1965, when the Canada-US Auto Pact Agreement was put into place. For 53 straight years, Canada build more cars than Canadians purchased. Yet, last year, it slipped just below a 1 to 1 production to sales ratio for the first time in 50 years.

Automotive manufacturing has long been considered the preserve of the most advanced economic places; it is advanced manufacturing at the highest level. In reality, however, lots of less advanced places that do advanced manufacturing successfully. In 2000, 70% of automobiles around the world were built

in the 25 places with the highest gross national incomes per person. Last year, that amount dropped to just below 36%.

The automotive industry has polarized, with the core automotive-producing countries (i.e., the US, Germany, Japan, South Korea, France, Italy) remaining at the top of the automotive production network because they host the headquarters of global leading firms.

The integrated periphery consists of countries that earned the production mandates of places such as Canada and Spain. Canada used to be the low-cost option in the integrated North American automotive industry. Eventually, however, Mexico took that role, along with countries in North Africa.

Places like Canada struggle in the automotive industry, as they are neither a core manufacturer nor a low-cost option. We therefore can't compete and need to look at new ways of moving forward. Trophy-hunting for big, global lead firms is futile. They have lots of choices, and no reasonable level of government intervention (i.e., subsidies) is going to mitigate the low wages of less advanced places.

Therefore, it appears that manufacturers stay in Canada and in New Brunswick for reasons other than competitive wages or good work ethic, which can be found in other places. It is possible that manufacturing is not quite as resilient as it is resistant – that is, resistant to going away.

We have to be careful not to assume that Imperial Manufacturing is here because of the good things here. A lot of companies are here simply because they're "here," and it might be easy to be here and difficult to move elsewhere. However, we should not delude ourselves into thinking that New Brunswick is the most profitable place to be.

Going forward, we need to avoid the tendency to pivot away from manufacturing toward R&D. If we are pivoting, we need to ask ourselves why we are doing that and whether it will provide what we want. Ultimately, will it provide jobs for people that work in manufacturing?

We shouldn't worry about creating jobs for STEM people. They are going to find jobs. What we should be interested in is creating jobs for manufacturing and making it easier – not cheaper – for companies to produce things in New Brunswick.

Finally, we shouldn't follow technology for the sake of technology and capitalization. People often throw technology at problems before looking at fixing their processes. We need to begin fixing our processes and working through them.

Denis Caron: Economic Opportunities at the Port of Belledune

The Port of Belledune in Northeastern New Brunswick specializes in the international export and import of bulk products. With access to rail, four deep-water terminals, and infrastructure built to first service

New Brunswick's mining sector and currently a NB Power plant, Belledune has incredible capacity to increase in economic value. At present, the port exports 24.3 million metric tonnes of material annually.

In a region with 15% unemployment, it employs over 4,600 workers. It also contributes \$55 million and \$51 million to the provincial economy and federal taxes a year, respectively.

The port has already proven to be a successful venture, with direct revenue over \$200 million and a niche market to service; yet, more can be done to develop its assets. When NB Power built a power plant at Belledune, it built enough infrastructure for four plants, including a conveyor system 4 kilometers long. At present, the conveyor system is only used 18% of the time, and the Port of Belledune would benefit if the government were to allow it access to the system.

The Belledune Port Authority is trying to attract industries and resource companies with a focus on processing resource material into value-added products. Because of the high demand, though, there is a need for expansion. The Port Authority wants to leverage the assets located around the port, such as the thousands of acres surrounding them and the NB Power plant, which through government policy could allow the port to utilize and optimize existing infrastructure.

For example, the steam produced when NB Power runs its turbine could be recuperated for industry, and the freshwater not being used to support the power plant could be optimized as well. Companies are looking to locate where it makes the most business sense. For now, many are looking at Belledune.

New Brunswick is often more focused on jobs than on wealth. Wealth creation, however, means a lot more for the province and has greater returns. By collaborating with industry partners, stakeholders, and government agencies, the Port of Belledune could be better utilized to create economic opportunities and wealth for the region and for New Brunswick as a whole.

Discussion: Moving Forward

A marketing port is a great asset to attract companies to New Brunswick, and it fits into a larger narrative of the comparative advantages the province has. Belledune is one example of a lighthouse in which to invest, and one step forward could be putting together a tri-part team to sit down and look at how automation could help improve the business cases of manufacturers looking to bring exports to market.

The larger question, however, revolves around capital and how to bring more capital in to the province. Canada does not pay much attention to New Brunswick, and the federal government is more focused on provinces such as Quebec and Ontario. To change this, New Brunswick needs to come to the table with infrastructure products that can be taken to the federal government; these projects must underline the fact that we have great strengths to build on and that we are a unified force.

If NB manufacturers can agree on projects that need financing and go to the federal government as one voice, the Government of Canada is likely to metaphorically “jump on the bandwagon.” First, though, we must agree on which project to co-invest in. Then, we could present a unified front and pitch this project to the government in its own language.

The notion of partnering with government is important in this regard, as the government of Canada has a brand that is recognized globally. The Port of Belledune, for instance, is also focused on the private sector, however, as it needs to receive outside investment if it is to develop 5,000-10,000 acres of land. Everyone wants access to the United States, and Belledune is right next door. International capital could come in if the opportunity is packaged right.

Any company can be productive if it puts its mind to it and goes through the associated processes. In the automotive industry, for example, suppliers generally want to talk about their new technology and capital investments. However, Toyota, for example, first wants to see safety records and the cleanliness of the plant. If people can’t manage employee safety, they can’t manage anything. However, if a company can get those two things in order, productivity starts to work itself out.

Finally, Industry 4.0 is coming, and it is bringing automation and the need for more capital investment with it. This involves manufacturers “taking the plunge,” and companies need to do that now if they want to receive the benefits that come with it. On the policy side, government needs to look at what red tape it can unravel or eliminate entirely, particularly related to the investments manufacturing companies need to make to go to Industry 4.0.

From another point of view, however, Industry 4.0 is used to intimidate a lot of firms, and no aspect of this revolution is going to bring Canadian wages, productivity, and costs to the levels in Mexico and other integrated peripheries. Nonetheless, manufacturers need to automate for other reasons, such as traceability and customer demand. It may not necessarily make companies more productive, but it will make them better.

Looking outward, sales plays a role in helping manufacturing companies in New Brunswick be more competitive. The province’s products and services are used all over the world, and sales brings in the voice of the customer to indicate what people need in different jurisdictions. Sales can be used to introduce potential and provide feedback on what is wrong.

When marketing New Brunswick as a place for business, it is important to remember that executives want fiscal sanity and a dependable economy above all. Companies want consistent, predictable environments in which to do business. We should consider how we could begin to tell that story and identify the comparative advantages of the province. For marketing exports, we need a slogan that brings brand awareness and recognition. After all, in marketing, the sale of an export is a relationship, not a transaction

PANEL 3

Manufacturers Respond to JDI Roundtable Issues and Discussion

A discussion of key issues, actions to address the issues, and what needs to be measured and studied for next year.

Moderator:

Herb Emery

Panelists:

Tim Byrne, Director of Operations, Ganong Bros., Ltd.

Jennifer Wilson, Senior Advisor, Atlantic Industries Ltd.

Keith Parlee, CEO, Apex Industries

Carson Roussel, Vice-President Finance, MQM Quality Manufacturing Ltd

Tim Byrne: From Artisan to Automation

Ganong was established in 1873 in St. Stephen, New Brunswick, and has now grown to employ 250 direct labour employees working on 14 production lines and 18 packing lines. Walking through one section of the company's buildings is like walking through a museum of confectionary history. In other sections, however, Ganong has a robotic cluster line, making its production practices – artisan and automated – very diverse.

Ganong's turn to automation was not geared toward reducing the labour force but toward increasing productivity. When competing within North America, it often sometimes essential to pivot toward better productivity.

The confectionary industry can compete with multi-billion dollar companies by investing in capital for more automation and more robotics. However, that can create another issue: the need to hire the correct individuals with the correct skillset.

In essence, companies seeking to remain competitive, like Ganong, need government, manufacturers, and education institutions to prepare to pivot or shift – whether through skill development or policy development – as manufacturers move into automation.

Jennifer Wilson: Manufacturing Pre-Mortem

To summarize the 2019 theme of the JDI Roundtable Forum, the approach that we've had to success in the past won't necessarily lead to success in the future.

Any good strategist will say that we should choose a few things we do well and focus on those. However, we could be a bit more imaginative about where opportunities lay. One strategy used to get into action mode is the idea of a pre-mortem, or, prospective hindsight imagining.

Effectively, if we place ourselves in the future and pretend we can see a specific scenario we either really want or really don't want, and if we try to figure out how we got there, we are much better at predicting what is going to drive our positive or negative outcomes.

The problem with a post-mortem is that the patient is already dead. If we use the pre-mortem idea, we can look disruption in the face.

Diversity of perspectives is crucial to coming up with novel solutions. A big part of looking at a problem is logic and framing the problem itself, which should involve talking to more than engineers. IT, sales, and consultants from Arts backgrounds, for example, can be involved to offer a variety of perspectives.

Finally, as a strategy to attract more workers, it can be beneficial to get them young. Young engineers, for example, want to get their hands dirty and own something – they want responsibility, though they might not know how unready they are. If you give 3rd- and 4th-year university student the opportunity to get their hands dirty with a project, you produce great recruiting opportunities.

There is a sense of urgency about skills at hand, but before we worry too much about the skills gap, we should remember that skills can translate in unexpected ways. Workers from a farming backgrounds, for instance, tend to possess great work ethic and the ability to problem-solve – all of which are transferable skills.

The people we want to attract to New Brunswick will be attracted by opportunities, rather than grants. It is therefore critical that hope is at the centre of opportunity – specifically, hope toward the future. Creating a sense of optimism, or applied hope, will increase our odds of success.

Keith Parlee: Adapting to a Changing Global Markets

In the metals manufacturing industry, APEX in Moncton operates in five different business units: steel doors, aerospace, contract manufacturing, distribution, and product development. While APEX struggles with many of the same problems facing other developers, such as an isolated location and difficulties recruiting talent, it is also subject to the impacts of a large variety of external factors.

The US, for example, constitutes 60% of APEX's business, and tariffs can cause huge disruptions. Likewise, the globalization of markets not only increases the need to remain competitive with countries all over the world, but the requirement of some countries to give offsets to others can result in lost business. Changing customer expectations also requires adaptation in terms of products delivered (such as moving from producing doors to producing doors that are pre-hung).

As an implication of these challenges, we must automate. Previously, companies became more productive by adding more people; now, we need to add machinery and to develop our own intellectual property. A mind shift needs to happen throughout the industry.

Carson Roussel: We undersell New Brunswick's Assets and Gloss Over Challenges

Many of the strengths of New Brunswick revolve around lifestyle, and this should be part of the province's immigration strategy. From a lifestyle perspective, New Brunswick can offer attractive elements such as beaches, no traffic, outdoor activities, and official bilingualism, making it a great place to raise a family.

On the operational side, there are other benefits to the region. For instance, there is no limitation to space that can be used for expansion. New Brunswick may take that for granted, but facilities elsewhere are limited. Moreover, there is good employee retention with low turnover rates because businesses in the region are rooted to their communities.

Yet, there are also challenges to operating in New Brunswick, such as the supply of material. Most steel, for instance, comes from steel mills located in the US and is first transferred to hubs such as Montreal or Toronto. This results in a high cost to access the market due to location.

Specialized services, such as galvanizing or technical support on specialized equipment, are also not often available in New Brunswick, and needing to go outside the province for services results in additional costs of production.

Finally, there are the two problems that continue to emerge as facing the manufacturing sector as a whole: labour shortage and low levels of investment. New Brunswick is the only Canadian province that hasn't seen productivity growth since 2007, even though it has experience in exporting and access to shipping infrastructure (such as in Belledune).

The challenges discussed in this Forum are the same challenges facing other provinces and countries; yet, when we look at the data, it seems that other provinces still perform better than New Brunswick. Even PEI, which has only one-quarter the population of NB, has a better performance. This could be due to PEI's tax credit programs, which are designed to stimulate investment and offer 10% on credit investment in manufacturing and processing companies and up to 25% for manufacturing companies with high levels of export.

In Quebec, similar tax credit programs exist to incentivize investment and development. One program offers up to a 30% tax credit on salary for specialized sectors like biotechnology, and other programs have incentives ranging from 4-5% for company investments. Investment is key to generate productivity in New Brunswick, but it is sorely lacking.

So how do we make New Brunswick great again?

We need to focus on our strengths with a long-term vision to boost the manufacturing industry. Some potential avenues for this could involve reviewing tax policies and providing a tax credit on salary – not as a way to pay fewer taxes but as an opportunity to reinvest in new technology.

We also need to review our immigration strategy to stimulate immigration and study successful stories from other jurisdictions.

Discussion: Moving Forward

Manufacturers share many common experiences along with some solutions. The provincial budget tells us we don't have much money to spend, and we can't give up tax points. Therefore, innovative thinking needs to start. We need to find what we can do in the short run just to get the ball rolling, prompting hope and optimism and turning the perception of the manufacturing sector around.

There is an energy to be derived from shortening the time between idea and result. We should look for quick routes to get funding and other results fast – in short, we should act on momentum.

On a simple level, NB manufacturers could begin doing more business together, though the bigger challenge of the global market still remains.

In the short-term, the New Brunswick can do things to attract people to the province, such as lessening the tax burden so companies can invest that money back into capital assets. This could generate more productivity and give them a competitive edge. While this may not be a long-term solution, it would certainly benefit manufacturers in-province and others looking to come into NB.

Measuring business success based on employment and jobs created is outdated. We need to measure success by productivity in future. However, we are still trying to figure out who is going to lead productivity growth. The natural leader is the government, but it already has lots of departments and lots of things to do. The business sector is involved in telling us that we need skills and the ability to attract. It is therefore possible that academia needs to be more receptive to the information that is coming in regarding market demands; however, this also poses a level of disruption to education itself.

It is difficult to pinpoint one person or one organization to carry this load. It is more important to identify roles and responsibilities for manufacturers to strive toward with a single vision together.

There are programs in place bringing businesses together and developing great partnerships. A lot of learning takes place when you come together in groups to solve issues faster. Moreover, there are benefits to an ecosystem of support rather than picking and choosing specific companies to support. In a start-up's journey, for instance, if one company gets a government grant, suddenly employees are flocking to that other company.

Regarding where to go from here, a short-term task force could be the answer, bringing all perspectives to the table. A good example to follow is that of Future Ready NB, which was implemented when four university presidents had a vision of New Brunswick as #1 in experiential education. Only given 6 months, a university VP led it along with a representative from the private sector. Government and academia followed behind the private sector to articulate and support the project.

We have a good model that has worked, and we can replicate that to bring the good ideas from this Forum forward.