Informing the Debate

Michigan Applied Public Policy Brief

Creating Binational
Michigan- Ontario
Sector Strategies to
Expand Collaborative
Business Opportunities
in the Binational ON-MI

Author J.D. Snyder



About the Michigan Applied Public Policy Briefs

Informing the Debate

The paper series, Informing the Debate, is generated out of grant-funded, policy-relevant research sponsored by the Institute for Public Policy and Social Research (IPPSR).

The IPPSR program, Michigan Applied Public Policy Research Program or MAPPR, generates research on current issues held in urban communities with special attention to Michigan. Policy researchers author summary briefs of their research outcomes and their implications. The funded research projects and related policy briefs focus on main headings of discussion being held in the policy arena.

When developing the paper series initiative in 1992, the topics of the papers were submitted following a two-day meeting with leaders from the business sector, nonprofit agencies, foundations, and university faculty and staff. That group evolved into the Urban Research Interest Group.

The Urban Research Interest Group recognized the pressure on urban core leaders to make critical decisions that continue to impact people long into the future. A commitment to generating background research to add to the core of debate on possible solutions to complex, urban problems was made.

The expected outcomes of the paper series include discussion that fosters and strengthens multidimensional connections between the policy, academic, and practitioner community. The series continues to cultivate research interest in policy-relevant issues for consideration of decision makers in urban communities.

Additional information about IPPSR, the Michigan Applied Public Policy Research (MAPPR) Program, and related publications as well as call for proposals is available on the website, www.ippsr.msu.edu.

Table of Contents

1.0	Introduction	1
	1.1 Background: U.SCanada Binational Trade and Collaboration	2
	1.2 Binational Regional Collaboration on the Canadian and Mexican Borders	3
2.0	Study Methods	7
3.0	Binational Regional Agri-food Production and Processing Sector	9
	3.1 Michigan Sugar Company (Bay City, MI) and Ontario Sugar Beet Growers	9
	3.2 Norfolk Cherry Company, Ltd. (Simcoe, ON) and Cherry Central Cooperative, Inc. (Traverse City, MI)	
	3.3 Michigan/Ontario Collaboration in Asparagus Research and Production	11
	3.4 Greenhouse Production: Darpa Systems and Technology (Kingsville, ON) and Kilbourn Farm (Marshall, MI)	
	3.5 Findings on Michigan-Ontario Specialty Crop Collaborations	13
4.0	Binational Regional Green Chemistry Sector	14
	4.1 Current Conditions	14
	4.2 The Binational Future of the Green Chemistry Sector in the Blue Water Region	16
5.0	Binational Lightweight Automotive Materials Sector	18
	5.1 Center for Automotive Research (CAR)	18
	5.2 American Lightweight Materials Manufacturing Innovation Institute (ALMMII)	19
	5.3 The Fraunhofer Institute	19
	5.4 The Woodbridge Group	19
6.0	Joint Regional Marketing in the Blue Water Region	20
	6.1 Current Conditions	20
	6.2 Findings	21
7.0	Threats to Binational Regional Collaboration	22
8.0	Outcomes and Recommendations	23
	8.1 Binational Regional Agri-food and Food Processing Sector Strategic Recommendations	24
	8.2 Binational Regional Green Chemistry Sector Strategic Recommendations	25
	8.3 Joint Regional Marketing Strategic Recommendations	25
	8.4 Policy Recommendations	25

1.0 Introduction

The \$700 billion trade relationship between the United States and Canada represents the largest binational trade relationship in the world. Trade between Michigan and Canada contributed \$75 billion to that relationship in 2012, with most of that trade occurring with the province of Ontario. Recognizing the importance of this relationship and the potential for expanding it to the benefit of small and midsized companies, the MSU Center for Community and Economic Development obtained a grant from the Michigan Applied Public Policy and Research (MAPPR) program to conduct research in support of identifying new binational approaches to build and strengthen Michigan-Ontario regional economic relationships for greater mutual prosperity.

Based on our research, it is clear that binational regional collaboration provides an effective approach to innovative regional economic development. Three of the five economic sectors that were identified in the process of planning the first binational Blue Water Regional Collaboration Conference in October 2013 were targeted in the current project for binational collaboration, and include:

- Agri-food Production and Processing
- Green Chemistry/Bio-manufacturing
- Joint Regional Marketing

These three sectors were targeted because of their regional economic significance and their potential to strengthen the binational region's strategic position and competitiveness in the global economy. The project team sought to identify strategic elements that can initiate or expand binational regional collaboration between Michigan and Ontario organizations and stakeholders in the three targeted sectors. Our research identified existing cases of collaboration across the Michigan-Ontario border, and developed strategic elements and policy recommendations that support and enhance binational regional collaboration.

Our major research paper, Global Models of Binational Regional Collaboration: The Potential for Great Lakes Innovation, which was completed with MAPPR support, created a framework to better understand how to pursue binational regional collaboration effectively. Binational collaboration entails a unique set of challenges with differences between two countries in governance, policies, and customary practices. This paper investigates 13 models of binational regional collaboration in North America and Europe, including the Blue Water Region of east Michigan and southwest Ontario and the Twin Saults Region of the eastern Upper Peninsula and northern Ontario.

The translation of theory explored in our paper into action on the ground as a part of the MAPPR project is evident from successfully holding the second Binational Blue Water conference in Sarnia, Ontario on June 11, 2014 (see Appendix A for conference program) and the signing of a binational memorandum of understanding (MOU) (see Appendix B) by three regional economic development organizations that was facilitated by the project team. The three organizations (two in Michigan and one in Ontario) have

agreed to collaborate on future binational economic development initiatives in six areas of binational regional interest.

The project team has developed a set of policy and strategic recommendations for each targeted economic sector to help guide implementation of the binational agreement signed June 11, 2014. This groundbreaking agreement between three regional economic development organizations positions the binational Blue Water Region to take advantage of innovative approaches to realizing economic prosperity.

1.1 Background: U.S.-Canada Binational Trade and Collaboration

Binational collaboration often occurs between two adjacent countries like Canada and the United States. Such collaboration may include agreements to manage natural resources, such as the Boundary Waters Treaty of 1909; or promote trade and commerce as in the Auto Pact of 1965 and the Canada-U.S. Free Trade Agreement (CUSFTA) of 1988; or cooperate on security as in the 2011 Beyond the Border Agreement.

The Boundary Waters Treaty of 1909 is a hugely important binational agreement between Canada and the United States. Over the past 105 years, this treaty has provided a framework through the International Joint Commission to manage and settle issues that arise from shared water resources on the basis of equality between the two countries.

The Auto Pact, formally the Canada-United States Automotive Products Agreement, was signed by Prime Minister Lester B. Pearson and President Lyndon B. Johnson on January 16, 1965. This was a major step



Detroit Skyline and Detroit River Source: Wikipedia

towards integrating the North
American automotive industry by
reducing production costs in Canada,
lowering prices for consumers, and
removing tariffs on cars, trucks, and
automotive parts.

The Auto Pact of 1965 helped to reduce the Canadian balance of trade deficits resulting from most automotive parts being made in the U.S., but it also bolstered the economies of the two nations through the elimination of tariffs and lowering the price of automobiles. According to Dimitry Anastakis, "the Auto Pact was an important step in the creation of a continental

economy."1

The Auto Pact created a platform for the Canada-United States Free Trade Agreement (CUSFTA) that was signed by Prime Minister Brian Mulroney and President Ronald Reagan on January 2, 1988 and took effect the following year. The Free Trade Agreement excluded tariffs quotas, export subsidies, and other types of government interference. The Free Trade Agreement greatly liberalized trade between Canada and the U.S. by removing tariffs, but more importantly, provided Canadians unhindered access to U.S. markets and provided U.S. businesses with access to the Canadian energy industry.

Just four years later, the North American Free Trade Agreement (NAFTA) was signed by President George H.W. Bush, Canadian Prime Minister Brian Mulroney, and Mexican President Carlos Salinas on December 17, 1992, that went into effect January 1, 1994. NAFTA brought together three of the 10 largest economies in the world, the U.S. with the largest economy and Canada's ranked #8 and Mexico's #9, according to the World Bank.

With the signing of NAFTA, the CUSFTA was expanded to encompass a trilateral North American pact. U.S.-Mexican tariffs were eliminated or phased out over 10-15 years. In addition to tariff elimination, NAFTA deepened and extended the Free Trade Agreement. Many observers point out that NAFTA removed restrictions on the mobility of capital and confers rights on investors, limiting the power of governments and making it difficult for future governments to change the terms.³

In responding to the post 9-11 world, President Barack Obama and Prime Minister Stephen Harper jointly announced the Beyond the Border Agreement on December 7, 2011 on border security and reducing trade regulations. The agreement was designed to coordinate the introduction of new technology to improve cargo security and screening at points of entry along the border. With such improvements, congestion will be eased and the time it takes to transport products between the U.S. and Canada will be reduced. These measures are intended to make it easier for businesses to export their goods. The U.S. and Canada are also working on streamlining trade regulations or eliminating them in some cases.

1.2 Binational Regional Collaboration on the Canadian and Mexican Borders

While binational regional collaboration has its roots in Europe, the North American model operates in an entirely different historical, political, demographic, and socio-cultural context. There is no overarching supranational authority like the European Commission to guide and support it. Nor is

_

¹ Dimitry Anastakis. Auto Pact: Creating a Borderless North American Auto Industry, 1960–1971. Toronto: University of Toronto Press. 2005.

² President Bill Clinton, a centrist Democrat, shepherded NAFTA through Congress in 1993, depending on Republicans for the majority of supporting votes in the House and Senate. As a result of criticism, President Clinton added two side agreements, the North American Agreement on Labor Cooperation and the North American Agreement on Environmental Cooperation. The Free Trade Agreement had been highly contentious in Canada with the 1988 election fought largely over the issue. The Liberals and the New Democrats split the anti-free trade vote in the 1988 election and the pro-free trade Progressive Conservatives slipped in. Mulroney's PC party easily passed the 1987 FTA and 1993 NAFTA bills.

³ Robert E. Scott, Carlos Salas, and Bruce Campbell. "Revisiting NAFTA: Still not working for North America's workers." EPI Briefing Paper #173, 2006.

there any history of devastating wars being fought on North American soil in the 20th century. Combat was not absent, however; the U.S. took armed action on multiple occasions against Mexico during the Mexican Revolution of 1910. Instead of some 30 mostly small countries as in Europe, there are only three countries with an acute asymmetry between the populations and economies of the U.S. and Canada and the U.S. and Mexico. All three countries are constitutional republics with free market economies.

The three countries are somewhat similar in terms of having extensive land areas with Canada the largest at 3.855 million square miles, followed by the U.S. at 3.71 million square miles and Mexico at 761,600 square miles. Canada has the largest land mass in the North American hemisphere and is second only to China in the world. The U.S. and Mexico are the third and 13th largest in the world, respectively.

The U.S. population was 317,353,470 (as of January 2014); 4 compared to Mexico with a population of 117,410,000⁵ and Canada with a population of 35,158,300.⁶ Asymmetry between the U.S. and its northern and southern neighbors is pronounced with the U.S. population nearly 10 times greater than Canada's and nearly three times Mexico's.

The U.S. economy is about ten times bigger than either Canada or Mexico. The U.S. GDP of \$15.7 trillion in 2012 represented just over 25% of the world economy as reported by the World Bank Group. In comparison, the Canadian GDP was \$1.4 trillion (Canadian) and the Mexican GDP was \$1.761 trillion in 2012.

At 5,525 miles, the U.S.-Canada border is the longest shared border in the world, with five geographic regions: one, Pacific West Coast; two, Great Plains; three, Great Lakes; four, Quebec-New York State and Northern New England; and five, Atlantic East Coast. The U.S.-Canadian relationship is exceptionally close:

Canada and the U.S. share a tradition of day-to-day cooperation and have developed an 'intimate' knowledge of each other that is apparent in the current tradition of quiet diplomacy and low-level functional solutions in a few key policy areas (free trade, labor, and environmental standards).

⁴ U.S. Census Bureau Popclock. Retrieved January 11, 2014 from http://www.census.gov/popclock/

⁵ World Population Statistics. Retrieved January 11, 2014 from http://www.worldpopulationstatistics.com/mexico-population-2013/

⁶ Statistics Canada. Retrieved January 11, 2014 from http://www.statcan.gc.ca/daily-quotidien/130926/dq130926aeng.htm?HPA

⁷ Emmanuel Brunet-Jailly. "Cascadia in Comparative Perspectives: Canada-U.S. Relations and the Emergence of Cross-Border Regions." Canadian Political Science Review Vol. 2. No 2. 109. 2008.

A key Canadian observer of cross-border regions, Senator Jerahmiel Grafstein, co-chair of the Canada-U.S. InterParliamentary Group, noted that cross-border regions represent a new economic model that best meets the challenge of competing in global markets.⁸

The results (of the collaborative research process) underscore the increasing importance of cross-border regions and regional relationships to present-day Canada-U.S. relationships and to Canada's future growth and prosperity. This importance highlights the need for new ways of thinking about policies and policy development, and, more than ever, shows that using a cross-border regional lens is necessary to recognize, understand, and better respond to the rising cooperative links and increasing participation of regional players and local stakeholders in the practical problem-solving of common issues in the border areas of Canada and the U.S.9

The extensive and growing integration of the U.S., Mexico, and Canada economies since the North American Free Trade Agreement (NAFTA) took effect 20 years ago is a phenomenon that requires a deeper understanding by regional leaders in taking advantage of new economic development opportunities.

The U.S. - Canadian Auto Pact (1965), the U.S. Canadian Free Trade Agreement (1989), and the North American Free Trade Agreement (1994) were the early milestones in an evolving strategy of connecting to and competing in the global economy. These milestones have contributed to the integration of the North American economy and greater global competitiveness. Multi-national corporations that helped drive this global economic process have reaped substantial benefits. SMEs have opportunities to seize these global economic opportunities through regional economic framework. Binational regions provide especially rich opportunities.

While globalization has undermined the importance of nation-states, sub-state regions have become more important. As places where cross-border commerce flows and communities live, sub-state/subprovincial actors are well positioned to offer important guidance on embracing new perspectives, seeing themselves as part of the larger economic regions they inhabit rather than as isolated production and commerce centers.

The illegal immigration issue on the U.S.-Mexico border and the U.S. federal response of greater and increasingly militarized border security has acted as a chilling factor in potential binational regional collaborations along that border. But that's not to say such collaboration does not occur. Indeed, the level of binational regional collaboration in the San Diego-Tijuana region provides perhaps the most robust model for North America.

⁸ Government of Canada PRI. "The Emergence of Cross-Border Regions Between Canada and the United States" Final Report,

 $^{^{9}}$ Government of Canada PRI. "The Emergence of Cross-Border Regions Between Canada and the United States" Final Report, 2008.

In the following sections, we will focus on binational regional collaboration in the Blue Water region of eastern Michigan and southwestern Ontario. Our research identified numerous cases of existing collaboration in the targeted economic sectors between Michigan and Ontario stakeholders. Much of the ongoing collaboration is informal and unrecognized. The project team's initial focus was to identify these existing relationships and the drivers that influenced their existence.

2.0 Study Methods

Project implementation included the identification of the members of three binational working groups (see Appendix C for list of members) addressing our three target areas. The working groups were made up of stakeholders and planners on both sides of the border that met to discuss identified sector developments and future initiatives.

The agri-food production and processing working group included leaders and experts from:

- Michigan State University Product Center
- Michigan State University Center for Economic Analysis
- Ontario Federation of Agriculture
- Ontario Agri-Food Technologies (OAFT)
- Michigan Department of Agriculture and Rural Development (MDARD), Exporting Division

These agriculture experts provided the project team with insightful guidance in executing the methods of the agri-food sector study by assisting in:

- Identifying existing strategic binational partnerships in the agri-food production sector.
- Identifying specialty and commodity crops with the potential for strategic binational partnerships.
- Conducting web-based research and review relevant information, including the Michigan Agri-Business Association's Project 2025, on growers and processors in specialty and commodity crops.
- Identifying private sector representatives and conduct interviews to elicit information on the formation, nature, history, future, obstacles, and successes of binational collaborative relationships.

The green chemistry working group is comprised of leaders from:

- Bioindustrial Innovation Centre (BIC), Sarnia, ON
- MBI International, East Lansing, MI
- Ontario Agri-Food Technologies (OAFT)
- Michigan Translational Research and Commercialization Program for the BioEconomy (MTRAC) at MSU
- Ontario Federation of Agriculture

This binational green chemistry working group meets to discuss new developments in the young, but rapidly-growing and transformational, green chemistry sector and identify new economic opportunities in the Blue Water Region. The sector study methods include:

- Identifying existing and potential binational partnerships.
- Convening regularly to share updates and initiatives related to the green chemistry sector.

- Discussing potential binational coordination opportunities.
- Identifying barriers to the growth of the sector.
- Advocating for the green chemistry sector as a critical sector for economic growth in the binational region.

The joint regional marketing group consists of leaders who focus on economic and business development in the binational Blue Water Region, and include representatives of the:

- St. Clair County (MI) Economic Development Alliance
- Southwest Economic Alliance (SWEA) of Ontario
- I-69 International Trade Corridor Next Michigan Corp.
- Blue Water Area Chamber of Commerce, Port Huron, MI
- Sarnia-Lambton Chamber of Commerce

The joint regional marketing working group methods included:

- Identifying the strategic elements of a binational approach to marketing the Blue Water Region.
- Identifying the economic development strategy for each respective side of the border to understand similarities and differences.
- Working with our agri-food and green chemistry working groups to shape the direction of economic development in the region.
- Organizing conferences and events to promote binational regional collaboration such as the Blue Water Corridor Conference (June 11, 2014).

3.0 Binational Regional Agri-food Production and Processing Sector

The regional agri-food sector in Michigan and Ontario was identified for its potential and capacity to build strategic economic partnerships across the Michigan-Ontario border. Unlike the focus on commodity crops, food processing, and supply chain by the agri-food panel at the 2014 Blue Water Corridor Conference (see Appendix D for presentations), our research favored collaborative relationships in the area of specialty crops. Factors favoring binational collaborative relationships include similar climate, close physical proximity, and socio-cultural similarities. These factors facilitate the formation of binational partnerships between Michigan and Ontario agri-food sectors that benefit both sides of the border.

Binational partnerships, it was found, were often formed in response to an event or specific catalyst. A potential catalyst could be a supply shortage or industry constraint. Catalysts motivated potential stakeholders to identify opportunities for collaboration that provide mutual benefits in classic win-win situations. Partnerships formed when stakeholders recognized a need that could be met through binational collaboration. As a result, an informal or formal relationship was formed.

The project team identified four agri-food cases in which binational collaborative relationships were developed by Michigan and Ontario interests. Binational initiatives were developed in:

- Sugar beet production and sugar processing
- Red tart cherry production and marketing
- Asparagus research and production
- Greenhouse manufacturing and growing

In the following subsections, we review the issues and events that led to the formation of collaborative relationships between Ontario and Michigan stakeholders, outcomes, and future steps. Our focus here is on the formation of strategic binational partnerships between Michigan and Ontario agricultural sectors that create value and synergies within these sectors.

3.1 Michigan Sugar Company (Bay City, MI) and Ontario Sugar Beet Growers

Michigan Sugar Company, based in Bay City with processing facilities in Caro, Croswell, and Sebewaing, is the third largest beet sugar producer in the U.S. The company markets retail sugar under the brand names of Pioneer and Big Chief. It is a cooperative owned by sugar beet growers in Michigan and Ontario. This ownership structure resulted from a Chapter 11 bankruptcy filing by Imperial Sugar in 2001. Growers supplying Imperial Sugar were offered the sale of Imperial Sugar. In 2002, the Great Lakes Sugar Beet Growers Association formed a cooperative and purchased what became the Michigan Sugar Company. 10

Michigan and Ontario sugar beet harvest data for supplying the Michigan Sugar Company was obtained

¹⁰ www.michigansugar.com/about/history

in an interview with Paul Pfenninger of the Michigan Sugar Company February 10, 2014. The data is presented in the table below.

for Michigan Sugar Company, 2013								
	Dover							
Location	Center*	Lambton	Ontario**	Michigan	Total			
Harvest (tons)	149,269	113,922	263,191	3,909,817	4,173,008			
Planted Acres	5,789	3,844	9,633	150,172	159,805			
Tons per acre	25.79	29.6	27.7	21.35	26.11			
% sugar***	17.49%	17.43%	17.46%	20.98%	18.34%			

Table 1: Michigan/Ontario Sugar Beet Production for Michigan Sugar Company, 2013

Collaboration between Ontario and Michigan growers has been mutually beneficial since 1998. During the 2013 season, Michigan Sugar used 10,000 acres of Ontario sugar beets which is the maximum acreage Michigan Sugar Co. will import due to the higher costs associated with cross-border transportation.

The cost of transporting Canadian sugar beets can be three times greater than that of Michigan sugar beets, primarily a result of proximity to processing facilities. While the 10,000 Ontario acres contribute only 6% of total tonnage at Michigan Sugar, it performs a critical service by providing the necessary amount of the sugar beets to keep the processing facility running at capacity. While it seems illogical to pay three times the amount for transportation costs to keep a processing facility running, that reason makes fiscal sense when looking at the importance of throughput and relative cost of idle hours where nothing is being produced.

It is imperative to look at potential supply chains to determine whether cross-border collaboration is viable. Specifically, with regards to logistical services, we review some coarse preliminary figures. Logistics provider's prices range widely (due to the volatility of fuel prices) and incorporate many different factors so stating a "generic rate" is impractical. However, data provided by Michigan Sugar Company shows that the freight cost per ton of sugar beets from Dover Area, Canada is \$12.40 per ton and the cost from Lambton, ON is \$11.36 per ton. These freight rates far exceed the \$4-\$5 rates in Michigan. With the average tonnage per truckload being 12 tons, we see freight charges of \$148.80 and \$136.32 for Dover Area and Lambton, respectively. Establishing the total landed cost of bringing commodities from Canada to the U.S. and vice versa, compared with bringing them from another state or country is another way to make the case for cross-border collaboration.¹¹

^{*}Dover Center, ON is a collection station (piling ground) for beets from Kent and Essex Counties.

^{**}Total for Kent and Lambton Counties.

^{***%} of sugar beets processed to sugar.

¹¹ Paul Pfenninger, Michigan Sugar Company, email communication, May 19, 2014.

Ontario sugar beets also have good soil to grow in, and they have a higher yield (tonnage per acre) than Michigan beets (as shown in table 1). To provide further reasoning for the price, freight costs are a large portion of many businesses and agricultural commodities are no exception; and with the closest sugar beet-producing state being Minnesota, Ontario starts to look even better with both locations being less than 100 miles from a Michigan Sugar processing facility in Croswell. Mark Lumley of the Ontario Sugar Beet Growers Association noted two partial impediments to cross-border transportation of beets: the freight clearing customs and pesticide registration 12. However, Ontario beet growers use the FAST program to expedite customs clearance thereby reducing the extent of the customs impediment.

3.2 Norfolk Cherry Company, Ltd. (Simcoe, ON) and Cherry Central Cooperative, Inc. (Traverse City, MI)

Norfolk Cherry Company in Simcoe, Ontario harvests, pits, and freezes sour cherries. After processing, cherries can be shipped to various types of processing facilities. Cherries are shipped in state, to the east coast, and exported overseas. Depending on cherry quality, cherries go to processors producing dried cherries, pie-making companies for pie filling, or juice companies. Norfolk Cherry sends its cherries to Indian Summer Juice Company in Traverse City, MI.¹³

Looking to market their products in the U.S., Norfolk joined CherrCo, Inc., a Ludington, MI tart cherry cooperative. This relationship introduced Norfolk to Cherry Central Cooperative. In May 2012, Norfolk Cherry became a member of Cherry Central Cooperative, Inc., a federated marketing cooperative representing grower-owned processing plants across North America.

Cherry Central is a global marketer of frozen, canned, bottled, and dried products, including Michigan red tart cherries, apples, and blueberries as well as a major supplier of cranberries, strawberries, and asparagus grown on farms across the United States, Canada, and worldwide. The relationship between Norfolk Cherry Co. and Cherry Central Cooperative resulted in part from the impact of NAFTA. With the advent of more open trade, accessing Michigan expertise and resources made sense, especially with the Traverse City brand of the Cherry Capital of the World. This resulted in a mutually-beneficial relationship in which Norfolk Cherry supplied Cherry Central and gained access to U.S. markets and Cherry Central achieved higher levels of capacity utilization. It was a classic win-win situation.

3.3 Michigan/Ontario Collaboration in Asparagus Research and Production

In the asparagus crop sectors of Michigan and Ontario, binational collaboration focuses on sharing best practices and research findings. The Michigan Asparagus Advisory Board has worked closely with the Ontario Asparagus Growers Association for over eight years. The two organizations have jointly worked on projects ranging from research on plant pathology to plant breeding.

About 75% of all asparagus currently grown in Michigan comes from seeds that were developed and bred at the University of Guelph in Ontario in 1999, called Millennium Asparagus. The two organizations

_

¹² Mark Lumley, Ontario Sugar Beet Growers Association, phone interview, March 31, 2014.

¹³ Ryan Schuyler, Norfolk Cherry Company, phone interview, April 17, 2014.

attend each other's meetings and seek to identify areas they can work together, primarily in research. This openness in approach and institutional proximity is critical to binational regional collaboration. ¹⁴ Although the Michigan Asparagus Advisory Board and Ontario Asparagus Growers already had an open working relationship, specific situations led the two organizations to work together more closely. In one situation, Michigan lagged in research on asparagus breeding while the University of Guelph was developing superior asparagus breeds. In another situation, Ontario growers needed assistance with plant pathology. The Ontario Growers Association was able to obtain a provincial government matching grant to work with Michigan researchers. In this collaboration, funds were raised for three years in Canada and Michigan matched the grant. 15

3.4 Greenhouse Production: Darpa Systems and Technology (Kingsville, ON) and Kilbourn Farms (Marshall, MI)

Darpa Systems of Kingsville, Ontario manufactures, trains, and assists in greenhouse growing operations. This includes the infrastructure for heating, irrigation, and hot water storage tank; scissor carts and harvesting carts; and grower and management training services.

There are 2,200 acres of greenhouses in the Leamington, Ontario area that grow tomatoes, peppers, and cucumbers with the produce shipped to retailers and food-service operations across North America. The capacity of Darpa Systems to create synergies can help companies operate greenhouses efficiently at lower variable costs than normal.

The development of Kilbourn Farms' greenhouse operation in Marshall, MI is the result of binational collaboration. Kilbourn Farms sits on land with oil and natural gas deposits. Darpa Systems has designed and manufactured a 12-acre greenhouse system that will be installed to take advantage of the on-site oil and natural gas. 16 The estimated project cost is \$11,930,000 with financing from the Fifth Third bank (\$8,650,000) and equity of \$3,280,000 from Darpa and Kilbourn¹⁷. The Michigan Strategic Fund also approved "collateral support totaling up to \$4,316,350 to address anticipated collateral shortfall for the project."18

This system will provide a creative, synergistic, and cost-efficient alternative to conventional greenhouse heating. With long severe winters and significant volumes of snow in the state 19, this system would put Kilbourn Farms at an advantage in terms of its heating costs. The system will also use a tempered glass produced in Holland, Michigan to maximize the retention of solar energy.

¹⁴ John Bakker, Michigan Asparagus Advisory Board, phone interview, April 14, 2014.

¹⁵ John Bakker, Michigan Asparagus Advisory Board, phone interview, June 2, 2014.

¹⁶ In an interview with Pete Ketler on June 2, 2014, he anticipated that construction will begin after June 6th, 2014.

¹⁷ http://www.michiganbusiness.org/cm/Files/MSF_Board/Board_Minutes_Starting_January_2012/25-FEB-2014-Approved-MSF-Mtg-Minutes.pdf, Retrieved on May 30, 2014.

¹⁹http://msue.anr.msu.edu/news/heavy snow loads and low temperatures challenge michigan greenhouse g rowers, Retrieved on May 30, 2014.

Darpa Systems expressed interest in future business development in Michigan but indicated that financing is a major challenge. Lenders have raised concerns about low economic returns associated with greenhouse production.²⁰

3.5 Findings on Michigan-Ontario Specialty Crop Collaborations

Binational collaboration clearly provides substantial economic benefits to specialty crop growers, processors, and equipment suppliers. Our research identified cases where an event or catalyst caused growers or a specialty crop association to seek and act on collaboration.

Our research found that binational collaborative relationships can achieve one of four major objectives:

- Fulfill processing and capacity utilization requirements.
- Share research and methods across borders.
- Market products across borders.
- Produce synergistic technologies that leverage each partner's resources.

These four objectives do not exhaust the types of potential benefits that might be derived from other areas of binational regional collaboration. Our research suggests that other objectives could be identified and achieved through the formation of binational collaborative relationships in other agrifood or agricultural sectors. Other binational collaborative relationships undoubtedly exist. We are certain that our research is preliminary, not exhaustive.

What we do know is this. Successful collaborative relationships can be either formal or informal. And they can evolve. They can arise from shared professional organizations, conferences, summits, or other similar opportunities. Successful collaborative relationships can also take root in informal, social situations. We want to nurture and facilitate both formal and informal types of binational regional collaboration for the mutual benefit of Michigan and Ontario economic sectors and the overall binational regional (Michigan-Ontario) prosperity.

Our research clearly indicates that binational collaborative relationships provide distinct benefits from the mutual leveraging of each side's resources and assets. Knowledge spillovers occur frequently and economic benefits are realized through physical proximity, process efficiencies, institutional proximity, and sharing methods.

²⁰ Pete Ketler, Darpa Systems and Technology, phone interview, April 25, 2014.

4.0 Binational Regional Green Chemistry Sector

Green chemistry is bio-based chemistry. Green chemistry is the term favored by Ontario stakeholders. Bio-manufacturing is the term more often used by Michigan stakeholders. Ontario and Michigan stakeholders recognize the sector as chemical production and processes designed to minimize and reduce the use of hazardous or toxic substances. ²¹ In other words, the green chemistry sector involves developing environmentally-responsible products with bio-based feedstocks that can be produced at commercial scale.

4.1 Current Conditions

Green chemistry is the backbone of a number of emerging sectors, including biofuel production, bio-manufacturing, and biotechnology. The future outlook for economic growth focused around these sectors is robust. Green chemistry represents an extremely high value-added industry that involves a number of regionally-significant complementary sectors. From the generation and collection of biomass feedstocks to advanced manufacturing, the potential for binational regional collaboration in the green chemistry sector is vast (see Appendix E for 2014 Blue Water Corridor Conference panel presentations).

Identified organizations with interest and involvement in the Blue Water Region's green chemistry/biomanufacturing sector include:

- Bioindustrial Innovation Centre (BIC), Sarnia, ON
- Ontario Agri-Food Technologies (OAFT)
- MBI International, East Lansing, MI
- Michigan Molecular Institute (MMI), Midland, MI
- Michigan Translational Research and Commercialization Program for the BioEconomy (MTRAC) at MSU

The economic development of the green chemistry sector is gaining ground in Sarnia and Ontario, largely due to the purposeful creation of an industry cluster by Bioindustrial Innovation Canada (BIC). In 2008, BIC received a \$15 million grant from the Canadian Federal Centre of Excellence for Commercialization and Research program to create a commercialization accelerator and the Sustainable Chemistry Alliance fund. BIC acts as a catalyst to develop a bio-based chemistry cluster that can convert sustainable feedstocks into energy and other value added chemicals in the Blue Water Region.

BIC's regional partners include:

- Industry Canada
- Sarnia Lambton Economic Partnership (SLEP)
- Western University (London, Ontario)

Page 14

²¹ Bernie Steele, Presentation to the Binational Blue Water Regional Collaboration Conference, October 2, 2013. Quoting Pual Anastas, EPA.

- Lambton College (Sarnia, Ontario)
- Western University Sarnia-Lambton Research Park (Sarnia, Ontario)
- City of Sarnia
- Ontario Federation of Agriculture

Ontario Agri-Food Technologies supports researchers and creates partnerships with growers to coordinate the growing use of agricultural technologies in Ontario. OAFT supports research, marketing and the commercialization of biotechnology and bio-based products. The organization works with public/private research groups to establish partnerships with growers, chemistry groups, and research scientists.

MBI International in Lansing, MI has similar functions to BIC in commercializing bio-based products. MBI's strategic plan focuses on commercializing bio-based technologies, business development, and marketing services.

MBI's partners include:

- Great Lakes Bioenergy Research Center (U.S. DOE-funded)
- MSU Bio-Economy Network
- National Space Biomedical Research Institute

The Michigan Molecular Institute is a contract research and development business, with specialists in green chemistry and biotechnology. MMI focuses on the development and commercialization of biobased chemicals including:

- Polylactic acid (PLA)
- Polypropyleneterephthalate
- Polyhydroxylalkanoates
- Ethanol
- Glycerol
- Propylene glycol
- Succinic acid
- Butanol

The MSU Michigan Translational Research and Commercialization (MTRAC) Program for the Bio Economy is a new MSU initiative to accelerate commercial development of bio-based projects over the next three years. It is jointly funded by MEDC and MSU. MTRAC will accept applications for commercialization funding through 2016. It seeks to fund innovative projects with a bio-economy focus and assists in:

Prototype development

- Scale-up studies
- Animal trials
- Crop trials
- Business development

4.2 The Binational Future of the Green Chemistry Sector in the Blue Water Region

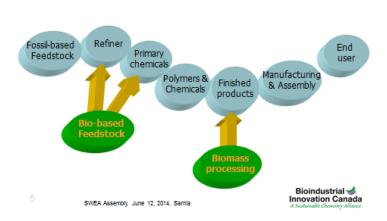
The Blue Water Region is recognized as a site for the development of a green chemistry cluster, and can strongly benefit from the chemical manufacturing infrastructure already in place in the Sarnia-Lambton area. The historical presence of a well-developed chemical industry provides a wealth of physical infrastructure and relevant talent in the region.

The Blue Water Region offers ready access to a host of factors including:

- Skilled labor
- Existing chemical manufacturing infrastructure
- Diverse transportation infrastructure (rail, road, and water)
- Feedstocks from farmers and foresters
- Access to North American markets

Local regional leaders have taken advantage of the existing infrastructure in Sarnia and developed the Bowman Centre. This research park is housed at the former Dow Chemical Canada headquarters and serves as an incubation facility for bio-based chemical companies working toward commercialization.

Building a Hybrid Chemical Cluster Creates jobs and economic value along the value chain



The Bio-based Value Chain Source: Bioindustrial Innovation Canada

The vision of the Bowman Centre is to significantly enhance the economic base for meaningful job creation and create a national center to advance the opportunity to become a sustainable energy superpower through the generation of value-added products and services from Canada's hydrocarbon and biomass feedstock. The Centre is working towards catalyzing the implementation of "big energy projects" as a Canadian Innovation Strategy for the current half century. The Bowman Centre is located in the Western University Sarnia-Lambton Research Park in Sarnia, Ontario.

Bioindustrial Innovation Canada is also housed at the Bowman Centre where its efforts are focused assisting in the development and commercialization of bio-based chemical products and processes. Two green chemistry start-ups, Woodland Biofuels and KmX Corporation, have constructed pilot plants with the assistance of BIC at the Bowman Centre.

BioAmber is a sustainable chemical company whose succinic acid production facility will be completed in Sarnia, ON in 2014. The France-based company will begin production at this Sarnia facility at a commercial scale in 2015 and plans to produce 30,000 metric tons annually²². The joint venture with Mitsui & Co., a global trading, investment, and service enterprise, will produce succinic acid from corn feedstocks that will be incorporated into a host of bio-based materials including plastic, spandex, and food.

Page 17

 $^{^{\}rm 22}$ BioAmber plans to scale-up its operation in 2016 to 50,000 metric tons.

5.0 Binational Lightweight Automotive Materials Sector

Dan Casey of the St. Clair County Economic Development Alliance suggested in spring, 2014 looking at lightweight material development as a complement to the green chemistry sector focus. The Obama Administration recently announced a lightweight material innovation hub in Detroit/Canton. The innovation hub will lead in the cutting-edge research to develop lightweight automotive materials.

The 2014 Blue Water Corridor Conference featured an expert panel discussing the future of lightweight materials in automotive manufacturing (see Appendix F). Demands on automotive manufacturers to sustainably produce lighter, safer, and more fuel efficient cars coupled with increasing price sensitivity among consumers presents market opportunities for innovative materials that are dynamic, affordable, and environmentally-safe.

Researchers are increasingly turning to metal alloys and fiber composites to reduce weight and increase strength. Many of the developments in the advanced manufacturing sector could be relevant to Tier 1 and Tier 2 automotive suppliers in the Blue Water Region. These developments could position the region as an advanced manufacturing hub.

5.1 Center for Automotive Research (CAR)

The Center for Automotive Research (CAR) was spun off by the University of Michigan in 2003. CAR conducts automotive, economic, and market research; makes public policy recommendations; and organizes conferences and forums. The Coalition for Automotive Lightweighting Materials (CALM) and the *United Tooling Coalition (UTC)* are CAR-sponsored programs targeting specific automotive areas. CAR is also developing the federally-funded American Lightweight Materials Manufacturing Innovation Institute (ALMMII).

CALM objectives include:

- Supporting cost-effective integration of mixed materials to achieve significant reductions in mass through the collaborative efforts of the material sectors and auto manufacturers.
- Exploring the integration of mixed materials into car doors.
- Identifying best practices and challenges associated with weight reduction.
- Over 35 regular participants, including DuPont Automotive and Dow Corning.

UTC focuses on:

- Facilitating between customers and UTC member companies.
- Developing steel or plastic tooling solutions to exceed cost and performance expectations in the following three categories:
 - 1. Stamping dies
 - 2. Plastic molds
 - 3. "Specialized Expertise"
 - a) Coordinate engineering, prototyping, and automation capabilities of members.

5.2 American Lightweight Materials Manufacturing Innovation Institute (ALMMII)

The American Lightweight Materials Manufacturing Innovation Institute (ALMMII), a Detroitbased consortium of businesses and universities, is backed by \$70 million in federal funds and \$70 million from other sources. The ALMMII is led by the Edison Welding Institute (EWI), a member-based, manufacturing-support organization comprised of 24 companies, nine universities and 17 other organizations. Its long-term goals include market expansion of lightweight products; automotive manufacturing growth; and aerospace, energy, defense and recreational partnerships.

5.3 The Fraunhofer Institute

Based in Germany, the Fraunhofer Institute is a global leader in applied research and development for a wide range of fields, but has facilities that specifically focus on bioenergy and lightweight automotive materials. The Fraunhofer Project Centre (FPC) for Composites Research at Western University is a collaborative initiative between the Fraunhofer Institute in Germany and Western University in Ontario focusing on the development of lightweight automotive materials using fiber composites. These composites and fibers have the potential to be sourced and produced from biomass materials. The bio-based cluster in the Blue Water region is positioned to play a significant role in developing these materials.

The Fraunhofer Institute also has ties to Michigan State University through the MSU Center for Coatings and Laser Applications (CCL). Created in 2003, the MSU center is based on complementary expertise in the areas of conventional coatings, carbon-based coatings, microwave plasma processing, and laser processing.

The Fraunhofer Institute also has interest in bioenergy and has conducted studies to:

- Extend the life of tobacco plants for extended bio-use,
- Harness heat generated from power plants, in addition to electricity,
- Convert food market waste into fuel, and
- Produce electricity from straw.

5.4 The Woodbridge Group

The Woodbridge Group, a major Tier 1 automotive supplier, offers urethane and bead foam seating technologies and car interiors with production facilities in Woodbridge, ON; Lansing, MI; Romulus, MI; and Troy, MI, dedicated to manufacturing, assembly, and sequencing operations.

6.0 Joint Regional Marketing in the Blue Water Region

The potential for binational regional collaboration in the Binational Blue Water Region of Southwest Ontario and East Michigan is due in part to its logistics assets and robust economic sectors:

- Second busiest U.S.-Canada border truck crossing at the Blue Water Bridge connecting Port Huron, MI and Sarnia, ON.
- Double-stack rail freight tunnel capacity crossing under the St. Clair River between Port Huron and Sarnia.
- Immediate access to Interstate I-69, I-94, Highway 402/401 (Ontario) and proximate access to I-75.
- Strong automotive, advanced manufacturing, plastics, and energy sectors.

The success of the fall 2013 Binational Blue Water Regional Collaboration Conference created substantial momentum, and provided the impetus and preliminary framework for collaboration in the binational Blue Water region. Specific Michigan-Ontario economic sectors were identified for collaboration by agencies and organizations to achieve greater economic prosperity and success in global markets. Marketing the binational region in its totality could provide a critical new key to leveraging and diversifying binational assets to compete successfully in the global economy.

The conference last fall included a panel of marketing professionals who discussed the marketing strategies of their respective organizations. These presentations addressed the strengths and accomplishments for each individual organization. However, a coherent and integrated joint regional marketing strategy was lacking.

The call for a joint regional marketing strategy was met with the formation of the joint regional marketing working groups and subsequent memorandum of understanding signed June 11, 2014 at the second Binational Blue Water Conference titled the Blue Water Corridor Conference.

6.1 Current Conditions

The Blue Water Area Chamber of Commerce (Port Huron, MI) and the Sarnia Lambton Chamber of Commerce have created a foundation for binational regional collaboration by:

- Accepting Michigan businesses as members of the Sarnia Lambton Chamber of Commerce, and vice versa.
- Facilitating frequent joint chamber board meetings.
- Choosing a liaison from the cross-border chamber board to participate in board meetings.
- Allowing member rates for cross-border chamber members for all events.
- Establishing a Canadian Appreciation Day on the Michigan side.

Though there is significant ongoing cross-border interaction between the two chambers, they have not taken steps to formalize their informal agreements and arrangements. Each chamber has a liaison that participates in meeting across the border. These liaisons are working together to promote Sarnia's restaurants, arts, performances, other types of entertainment to the Michigan audience.

6.2 Findings

According to each respective chamber, binational regional collaboration occurs informally in the Blue Water Region. Although ongoing cross-border efforts exist, there is significant potential for expanded binational initiatives and events. Future binational initiatives and events could include:

- Leadercast (leadership development program)
- Port Huron Business Association bi-weekly breakfast meetings with Sarnia businesses.
- Business After 5 events and other networking events
- Joint marketing for awareness and promotion
- Annual binational golf outing.

Based on interviews with the respective chamber liaisons, establishing a formal agreement between the two chambers would represent the next logical step that builds on informal, ongoing cooperation between the two chambers. Leadership of each chamber wants to strengthen the relationships between their two chambers. Representatives of both chambers expressed interest in a joint initiative/agreement at a meeting with the MSU CCED team May 14, 2014 in Port Huron.

A draft agreement is expected this fall with the Sarnia Lambton Chamber probably taking the lead with the assistance of the MSU CCED team. The prospect of the agreement will be reviewed by board members of each chamber over summer 2014.

7.0 Threats to Binational Regional Collaboration

The lack of sufficient transportation infrastructure hinders binational regional collaboration in the binational Michigan-Ontario region. Investment in rail, road, intermodal, and port infrastructure is acutely needed.

The New International Trade Crossing (NITC) would address the need for more adequate infrastructure connecting Detroit, MI and Windsor, ON. The privately-owned Ambassador Bridge is 84 years old. Relying solely on this aging infrastructure presents significant risk moving forward. Over \$100 billion worth of US-Canadian trade passes through the Detroit-Windsor corridor²³ annually. The fundamental importance of this crossing is clear and unequivocal. The funding to cover all capital costs associated with the new crossing, except the U.S. customs plaza, will come from the Canadian side. This dramatic example of binational collaboration recognizes the fundamental need to provide adequate infrastructure that connects the greatest trade relationship in the world.

The Canadians plan to spend \$2.1 billion on the acquisition of land for construction of the bridge and ramps and highway connections.²⁴ The Obama administration has failed to allocate \$250 million for the Detroit customs plaza in its 2014-2015 annual budget and also did not fund the plaza expansion at the Blue Water Bridge. The lack of federal support for these projects causes significant concern. The difficulties in securing funding for important binational initiatives represent a serious barrier to working across the border.

Directly related to the funding issue is the cost of logistics services. It is a key issue for most, if not all, companies especially those considering exporting for the first time. In examining the prospect of a strategic binational relationship, profitability tops the list of priorities. Fuel prices represent a major variable cost and can discourage companies from even considering binational collaborative opportunities. Time spent in traffic stopped at the border represents a daunting cost. If companies are not confident that their goods can clear customs in a timely manner, they may avoid binational trade opportunities. International freight forwarders and customs brokers offer services to ensure expedited border crossing, but come at a cost.

Funding restrictions for economic development organizations to work across the international border represents a major barrier to binational regional collaboration. Organizations on both sides of the border are limited to spending government-allocated funds on their respective sides of the border. This limits the capacity of the organizations and creates a disincentive to work across the border. Funding restrictions also result in a loss of efficiency and effectiveness when tasks are performed twice or performed asymmetrically. When funds stop at the border, projects stop at the border.

²³ http://actionplan.gc.ca/en/initiative/detroit-river-international-crossing

²⁴ http://www.detroitnews.com/article/20140620/METRO01/306200081#ixzz35aMAiwv9

8.0 Outcomes and Recommendations

The uniqueness of binational regions presents opportunities for stakeholders in these regions to capture substantial economic benefits by collaborating across their borders and creating more innovative products, services, and processes. Our research identified numerous instances where stakeholders on both sides of the border benefitted from binational regional collaboration.

Five key outcomes resulted from MAPPR-supported activities that were designed to facilitate binational regional collaboration in the Blue Water Region, including:

- Formation of binational expert working groups in three economic sectors.
- Second Binational Blue Water Region conference, June 11, 2014.
- Signing of a binational Memorandum of Understanding (MOU) by three regional economic development organizations.
- Creation of a new position by the Southwest (Ontario) Economic Alliance (SWEA) dedicated to binational initiatives and issues.
- Binational "Meet the Buyer" events with the first scheduled for October, 2014 in Port Huron.

The development of the three binational working groups represents important progress in moving binational regional collaboration in Michigan and Ontario forward. These working groups in our three targeted areas are comprised of content experts from both Michigan and Ontario (see Appendix C).

The joint regional marketing working group initiated the development of a memorandum of understanding (MOU) in spring 2014. This MOU provides a framework for three regional economic development organizations—the I-69 International Trade Corridor Next Michigan Corporation; Southwest Economic Alliance (SWEA) of Ontario; and the Detroit Regional Chamber of Commerce—to collaborate in six target areas:

- 1. Joint marketing initiatives to promote transportation corridors that link Ontario and Michigan.
- 2. Business-to-business engagements designed to enhance trade opportunities and expand existing clusters.
- 3. Cross promotion of trade resources to assist companies to conduct international commerce.
- 4. Coordinating joint events, such as conferences, business networking, educational programming or forums.
- 5. Conducting awareness campaigns regarding best practices that promote: the I-69/401/402 corridor; cluster development in agriculture, automotive technologies, including lightweight or composite materials, or bio-based industries; immigration strategies; policies that improve international trade.
- 6. Sharing of university or other research or reports related to the above topics.

SWEA is creating a new position dedicated to working on binational issues in southwest Ontario. This staff position will assist the implementation of the MOU that was signed June 11, 2014.

The I-69 International Trade Corridor Next Michigan Corporation has scheduled a binational "Meet the Buyer" event in Port Huron in October, 2014. The event will be organized and co-hosted by Lapeer and St. Clair counties, and participants are expected from the surrounding Michigan counties and southwestern Ontario counties. The program format consists of signing up regional "buyers", or prime contractors, who serve as the draw. Local companies that sell various goods and services can sign up to meet with the buyers and learn of new sales opportunities. These types of events allow for the dissemination of cross-border knowledge in an effective manner, and open the door for small and midsized companies to pursue trade opportunities and innovative binational initiatives.

8.1 Binational Regional Agri-food and Food Processing Sector Strategic Recommendations

Growers, processors, producers, and others closely tied to the agri-food sector should not wait for the next problem to arise before considering collaboration with their Canadian neighbors. Instead, a culture of collaboration can be cultivated through high-quality conferences (as has already been done) and "Meet the Buyer" events (like that scheduled for October, 2014).

A collaborative culture can help create networking platforms for growers, processors and producers to meet, organize, and take actions, both informally and formally. The three economic sector working groups, project team, and advisory network have all facilitated and contributed to the process of building each network platform, and will continue to do so.

Next steps include:

- Obtain data and information from growers, processors, logistics providers, other researchers, and agricultural organizations in Michigan and Ontario to:
 - Identify other specialty crops or commodities where binational regional collaboration could be beneficial. Candidates include:
 - Blueberries
 - Hazelnuts
 - Cucumbers for pickling
 - Grapes
 - **Apples**
- Facilitate discussions between grower associations in Michigan and Ontario for crops where cross-border relationships are absent.
- Hold a workshop in the fall of 2014 to facilitate structured discussions between growers and processors in their respective sectors to identify collaborative opportunities.

The workshop will provide an opportunity for the project team to present its research on successful cases of binational regional collaboration. It's also an opportunity for stakeholders to interact and identify potential collaborative opportunities. A key opportunity for agriculture could exist in producing biomass feedstocks for bio-manufacturing companies. This workshop would offer an opportunity for growers to discuss their involvement in the green chemistry sector.

8.2 Binational Regional Green Chemistry Sector Strategic Recommendations

The Sarnia-Lambton Economic Partnership (SLEP) has identified the green chemistry cluster for regional and federal investment to support the development of private sector investments. The physical and institutional proximity of this cluster could have spill-over effects into East and Southeast Michigan.

- Convene the green chemistry sector work group to identify specific collaborative initiatives.
- Identify sequence of steps to coordinate research agendas between MSU and the University of Guelph and/or Western University (London, ON).
- Implement the above-identified steps to the degree practicable.
- Advocate for green chemistry sector/bio-manufacturing development in Michigan.

8.3 Joint Regional Marketing Strategic Recommendations

The Blue Water Region now has a binational agreement in place to guide future joint regional marketing efforts. It will be up to regional leaders to ensure implementation and facilitate achievement of states objectives.

Next steps include the following:

- Facilitate implementation of the MOU signed at the Blue Water Corridor Conference, June 11, 2014.
- Consult with the Blue Water Area Chamber of Commerce and Sarnia Lambton Chamber of Commerce and facilitate drafting a binational MOU to guide future binational collaboration between the two chambers.
- Facilitate development of a joint regional marketing strategy for the Blue Water Region Chambers.

8.4 Policy Recommendations

Based on our research findings on binational regional collaboration in the Binational Blue Water Region, the following should be considered:

Initiatives that support infrastructure improvement, accessibility, and enhancement (e.g., Blue Water Bridge customs plaza expansion) of international border crossings.

- Awareness campaigns of Michigan's binational regions and their innovation potential.
- Recognition by Michigan leaders of the innovative investment and growth occurring in the green chemistry sector directly across the border in Ontario in both the Twin Saults and Blue Water regions.
- Funding sources for organizations and/or projects with a binational focus that allow the expenditure of discretionary funds on either side of the border to achieve binational economic goals and objectives.
- Funding for binational mapping of the Blue Water Region to identify regional assets and highlight complementary economic sectors.
- Job training and education programs that target innovative and high growth economic sectors, specifically green chemistry and advanced manufacturing.
- Development of a single bilateral organization to work in a clearly-defined binational region.

Appendix A

Blue Water Corridor Conference Program, June 11, 2014

Schedule - SWEA Assembly 2014



future steps.

Don McCabe, Farmer and VP, Ontario Federation of Agriculture

André Boucher, Plant Manager, BioAmber, Sarnia

David R. Dodds, Ph.D., Dodds & Associates, LLC

David G.Ward, Ph.D., Vice President of Research and Development, American Process Inc. (API)

Moderator: Murray McLaughlin, Executive Director, Bioindustrial Innovation Canada

16:00

17:00

Clusters along the I-69 and 402/401 Corridor: Focus on Agri-Food & Food Processing

The panel will present new research on the strengths of the food processing and agri-food industries in the Blue Water Corridor, and the potential opportunities for the entire region.

Dr. David Sparling, Professor, Operations Management and Chair of Agri-Food Innovation, Ivey Business School, Western University

Fred Rodammer, Professor of Practice and Managing Director, Center for Global Sustainability Midland Research Institute for Value Chain Creation, Eli Broad School of Business, Michigan State University

Moderator: Peter White, Executive Director, Government Relations and Strategic Partnerships, Western University

18:30 Bi-National Conference adjourns followed by Bi-National Reception

Perch Fry and River Cruise

Open to all delegates. Enjoy fresh local perch dockside at Purdy's Fishery, take in the smooth sounds of The Dino Brainilli Jazz Trio, then board the Duc D'Orleans for a cruise on the St. Clair River. Courtesy shuttle buses provided to and from the dock.

Hosted by County of Lambton, Sarnia-Lambton Economic Partnership and Tourism Sarnia-Lambton.





Purdys Wharf, site of the Perch Fry and Duc D'Orleans for the St. Clair River Cruise

Thursday, June 12th - Plenary Sessions

PLEASE NOTE: The Assembly will adjourn at 14:00 in order to accommodate voting in the provincial election.

7:30 Registration Opens (Guildhall Room)
Continental Breakfast and Networking

8:30 Introductions

Greetings from the SWEA Chair, Warden of the County of Lambton and Mayor of Point Edward.

9:00 Keynote Address: Innovative Intelligence
Claude Legrand, Practical Innovation Expert

10:00 Samia-Lambton's Industrial Transformation Ontario's industrial sector is being re-invented. Hear about industrial rejuvenation the way it's being done in Sarnia-Lambton. Mike Bradley, Mayor of Sarnia and Chair of the Western-Sarnia-Lambton Research Park Sandy Marshall, Former President, LANXESS Canada and Chair, Bioindustrial Innovation Canada Tim Moran, President, Pollutech EnviroQuatics Limited and Director, Sarnia Lambton Industrial Alliance Moderator: Rory Ring, President, Sarnia-Lambton Chamber of Commerce 11:00 **Networking Break** Sarnia-Lambton: An Intelligent Region 11:30 Local success stories. Hear from two enterprises that use high speed connectivity and Information and Communications Technologies to innovate and build successful businesses, and learn about Lambton County's Cultural Plan and initiatives to grow a creative economy. Bev MacDougall, Deputy Warden, Lambton County; Councillor, City of Sarnia and Lambton County; and Chair, Creative County Committee Emily Branton, President, Link2Feed Katherine Walker, Co-President, iMAP and Co-President, IWA Moderator: Rory Ring, President, Sarnia-Lambton Chamber of Commerce 12:30 **New from SWEA** Updates on SWEA initiatives 13:00 **Closing Comments from SWEA Chair Lunch and Networking** Draw for door prize **Assembly Adjourns** 14.00 Go home and vote

Appendix B

MEMORANDUM OF UNDERSTANDING: BINATIONAL INNOVATION AND COLLABORATION

This Memorandum of Understanding ("MOU") is entered into as of the 11th day of June, 2014, by and among the signatory public and private entities, including but not limited to non-profit organizations, economic development corporations and collaborations, local government organizations, chambers of commerce, and similar organizations both in the United States and Canada (each an "Entity" or collectively "Entities"). The Entities signing this MOU may also be referred to as "Parties," or each a "Party."

RECITALS

Whereas, the Parties to this MOU recognize the strong economic potential of the Binational Blue Water Region of Southwest Ontario and East Michigan and seek to work together to cooperatively market the Parties' competitive and complementary assets to promote trade, transportation, and economic growth in the region;

Whereas, the Parties desire and intend to mutually cooperate and collaborate with each other on the following opportunities for collaboration ("Opportunities"):

- 1. Joint marketing initiatives to promote transportation corridors that link Ontario and Michigan.
- 2. Business-to-business engagements designed to enhance trade opportunities and expand existing clusters.
- 3. Cross promotion of trade resources to assist companies to conduct international commerce.
- Coordinating joint events, such as conferences, business networking, educational programming or forums.
- 5. Conducting awareness campaigns regarding best practices that promote: the I-69/401/402 corridor; cluster development in agriculture, automotive technologies, including lightweight or composite materials, or bio-based industries; immigration strategies; policies that improve international trade.
- 6. Sharing of university or other research or reports related to the above topics.

Now, Therefore, the Parties agree as follows:

- 1. To mutually cooperate and collaborate to support and assist with the implementation of Opportunities;
- 2. To freely discuss and exchange ideas and concepts regarding infrastructure needs, marketing, policy, talent, supply chain solutions, value-adding propositions, job creation, regional competitiveness, and innovation;
- 3. To act positively to enhance the image of each Party; and
- 4. To support the fulfillment of the Opportunities in a non-competitive, mutually-beneficial environment.

Further, the Parties agree that:

This MOU is a non-binding collaboration with a one-year term ("Term") that will be automatically extended for successive one-year terms (each an "Extended Term Year") unless a Party wishes not to extend the Term or any Extended Term Year as to that Party. The Party wishing not to extend the Term or any Extended Term Year shall provide written notice to the other Parties no later than sixty days prior to the end of the Term or any Extended Term Year as the case may be. The non-extension shall only apply to the Party providing such notice.

In addition, each Party shall have the right to terminate this MOU for any reason upon 60 days written notice to the other Parties. Such termination shall only apply to the Party providing such notice.

This MOU is not legally binding on any Party. Each Party is responsible for its own costs and expenses. No legal rights or liabilities between and among the Parties are created. This MOU is not intended to, and shall not be construed to, create a joint venture, agency, partnership, interlocal agreement, governmental body, or association. No person or entity may rely on this MOU for any reason whatsoever.

I-69 International Trade Organization Name Connocon	Paul J. Brake Representative Name				
Date 11, 2014	Representative Title				
	Signature 77				
Organization Name Detroit Regional Chamber	Representative Name Benjamin Erul Kar				
Date Thre 11, 2014	Representative Title Vice Product Encic Distroct				
	Signature Signature				
Organization Name SWEA	Representative Name JOHN GRACE				
Date Jene 11/2014	Representative Title Social				
	Signature Signature				
Directional law continuous of Callabaration Management of the desired for					

Appendix C

Binational Working Groups

Agri-food Production and Processing

- Steve Miller, MSU Center for Economic Analysis
- Bill Knudson, MSU Product Center
- Gord Surgeoner, Ontario Agri-Food Technologies
- Don McCabe, Ontario Federation of Agriculture
- Jamie Zmitko-Somers, Michigan Department of Agriculture and Rural Development Exporting

Green Chemistry Sector

- Murray McLaughlin, Bioindustrial Innovation Canada
- Bernie Steele, MBI International
- Andy McColmb, MSU Michigan Translational Research and Commercialization
- Don McCabe, Ontario Federation of Agriculture
- Gord Surgeoner, Ontario Agri-Food Technologies

Joint Regional Marketing

- Dan Casey, St. Clair County Economic Development Alliance, I-69 International Trade Corridor Next Michigan Corp.
- Serge Lavoie, Southwest Economic Alliance of Ontario
- Justin Horvath, I-69 International Trade Corridor Next Michigan Corp.
- Janice Karcher, I-69 International Trade Corridor Next Michigan Corp.
- Patrcia Lucas, I-69 International Trade Corridor Next Michigan Corp.
- Bill Miskell, Blue Water Area Chamber of Commerce
- Rob Taylor, Sarnia-Lambton Chamber of Commerce

Informing the Debate

Michigan Applied Public Policy Research (MAPPR)

Institute for Public Policy and Social Research

www.ippsr.msu.edu

(a) IPPSR

Michigan State University