



INTELLIGENT SARNIA-LAMBTON STRATEGIC PLAN

MAY 2019



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EXECUTIVE SUMMARY

Sarnia-Lambton, which is best known for its chemical and agricultural sectors, is one of the most vibrant regions in Canada. The prosperity of Sarnia-Lambton derives from a diverse range of industries including agriculture, automotive, engineering, instrumentation, metal and plastics fabrication, machining, and environmental services. By leveraging its strengths, Sarnia-Lambton is diversifying its economy into new and emerging sectors through the establishment of an innovation ecosystem. To accelerate such diversification, Sarnia-Lambton needs to consider new and innovative approaches to ensure sustained prosperity in the increasingly digital and technology-driven global economy.

Cities and regions around the world have been gradually adopting the concepts and principles of intelligent communities and integrating them into their strategic plans for communities. With the Internet of Things (IoT) and digital connectivity at the core, the pillars of an intelligent community are important measures which define the success of a community in the future. The global network Intelligent Community Forum (ICF) describes broadband, knowledge workforce, innovation, digital equity, sustainability and advocacy as the pillars of an intelligent community.

Not content to simply be a “Smart Community”, Sarnia-Lambton desires to become a model intelligent community by adopting these pillars into its planning process. Sarnia-Lambton has been named a Top 21 Intelligent Community in the world in 2016, 2017, and 2018 and a Top 7 Intelligent Community in the world in 2019 by ICF. Intelligent communities are highly valued by industries and business, and they are able to retain and attract a knowledge workforce and grow their economy. The purpose of this strategic plan is to enhance the continued transformation of Sarnia-Lambton into a leading intelligent community well-positioned to prosper in the rapidly changing new global economy.



In order to prepare this plan, three stakeholder input workshops were conducted to gather public input into the strategic plan for Intelligent Sarnia-Lambton. This strategic plan is the product of extensive public consultation and input from elected public officials, end users and experts in the field. The wellbeing of the community is the primary focus of all actions set out in the plan.

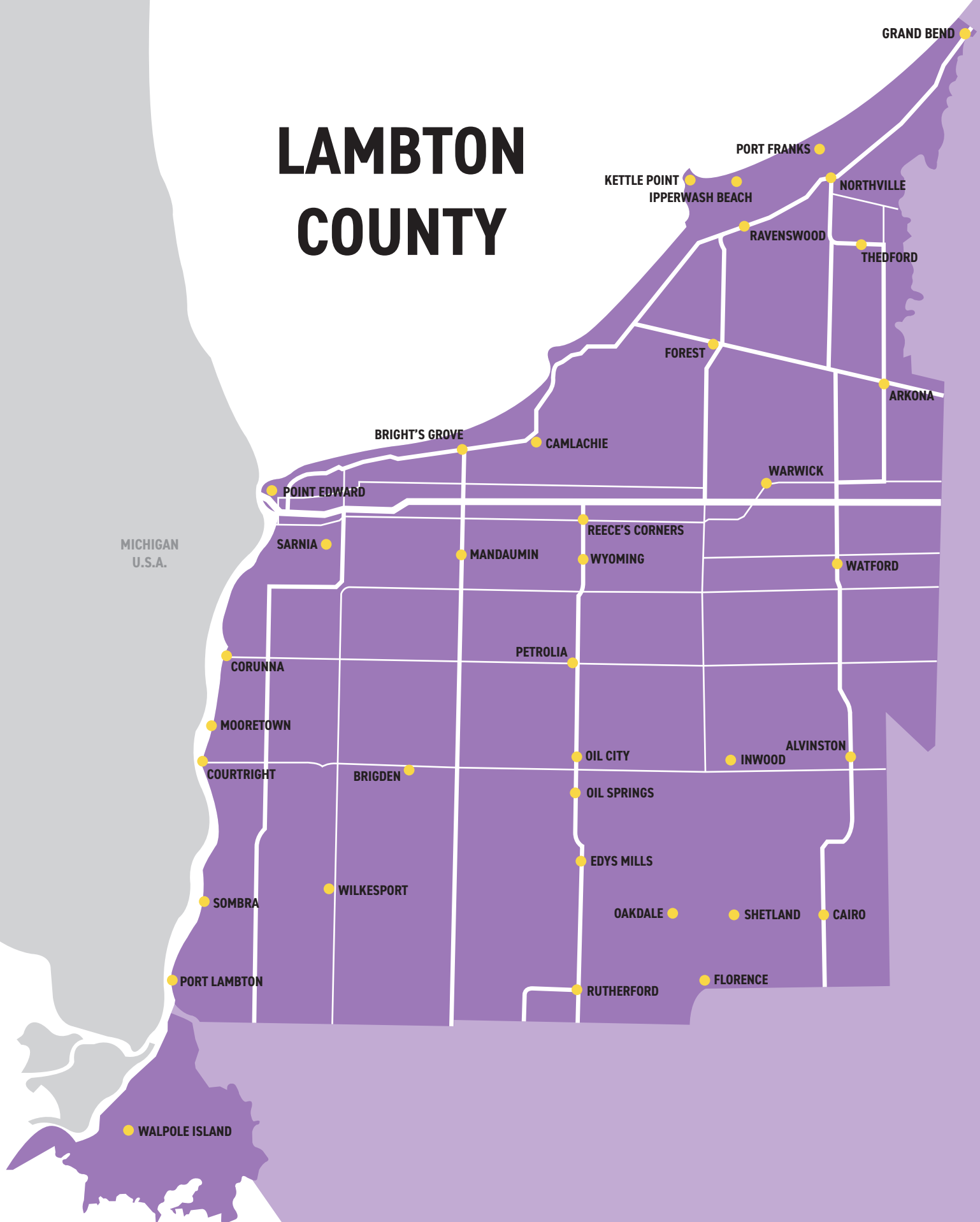
Facilitative municipalities and institutions are expected to lead the community towards prosperity, promote the region and facilitate the advancement of the community. Industries and businesses collaborate and continuously innovate to grow and diversify the economy. The prospering community at the top of the model actively engages in community affairs, leads sustainability initiatives and creates a work-life balanced community. The specific strategic plans associated with the actions of the entities are given in the table below.

ENTITY	ACTION	DESCRIPTION	STRATEGIC PLAN
Facilitative municipalities and institutions	Lead	Lead Sarnia-Lambton towards an intelligent community by envisioning trends and issues	Adopt initiatives such as open data policies in order to support prompt decision making and to improve operation efficiencies
	Promote	Increase awareness of intelligent community initiatives among local residents and promote Sarnia-Lambton nationally and internationally	Develop a digital promotion strategy for governments, institutions, businesses and residents
	Facilitate	Facilitate the enhancement of intelligent community pillars	Investigate business cases to support the pillars and explore funding models focusing on private-public-partnership
Thriving economy	Collaborate	Collaborate among industries and businesses on common challenges	Develop a collaborative information system to address skills gap
	Innovate	Introduce new products/services through research and development	Create a task force to increase awareness of R&D support available in Sarnia-Lambton to industries and businesses
	Diversify	Establish new economic sectors	Evaluate new economic sectors which would significantly benefit from the strengths of Sarnia-Lambton
Prospering community	Engage	Participate actively in community governance and advocacy	Develop a digital community engagement strategy
	Sustain	Create community-led initiatives in social, environmental and cultural issues	Invite proposals addressing social, environmental and cultural issues from existing and new community groups
	Balance	Establish Sarnia-Lambton as a prospering and work-life balanced community	Evaluate work-life balance projects proposed by community groups

The strategic plan offers the opportunity for municipalities, institutions, industries, businesses, and residents in Sarnia-Lambton to work in synergy to achieve the common goal of becoming a leading intelligent community and ensuring continued prosperity. It is highly recommended that Sarnia-Lambton supports the creation of an ICF Institute so that it becomes an ICF node in the global network to strengthen the leading role of Sarnia-Lambton, to receive well-informed guidance from the global think tank and to learn and share information with other intelligent communities in Canada. The implementation plan is expected to follow after this strategic plan is presented to and discussed with municipalities, institutions, industries, businesses and the community.

LAMBTON COUNTY

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ACKNOWLEDGMENT

The Intelligent Sarnia-Lambton (ISL) team is grateful to all participants of the stakeholder input workshops for their thoughtful and passionate suggestions and discussions. The ISL team offers profound thanks to Libro Credit Union for providing financial assistance to conduct the stakeholder input workshops in Sarnia-Lambton and the preparation of this strategic plan.

The quality services provided by Bryan Boyle & Associates and Western Sarnia-Lambton Research Park in conducting stakeholder input workshops and developing the strategic plan, respectively, are greatly appreciated.

The ISL team would like to express its sincerest gratitude to the organizations which have been providing support for the Intelligent Sarnia-Lambton initiative: Bluewater Power and Bluewater Regional Networks, County of Lambton, City of Sarnia, Sarnia-Lambton Economic Partnership, Lambton College, Western Sarnia-Lambton Research Park and Brooke Telecom.

ISL VISION

To be an intelligent community where people want to live and businesses want to locate.

ISL MISSION

To provide a framework and supports to diversify and grow the local economy so as to enrich the quality of life for all local residents.



INTELLIGENT SARNIA-LAMBTON

1. INTELLIGENT SARNIA-LAMBTON

Sarnia-Lambton, which is best known for its petrochemical, agricultural and tourism sectors, is one of the most vibrant regions in Canada. The prosperity of Sarnia-Lambton derives from a culture of discovery and innovation, firmly rooted in a strong sense of community. This culture has spawned a diverse range of industries including agriculture, chemicals, automotive, engineering, instrumentation, metal and plastics fabrication, machining, and environmental services. Through its innovation ecosystem, Sarnia-Lambton is able to diversify its economy into new and emerging sectors. Diversifying the economy is an essential step in ensuring continued prosperity, however, there are other developments which are needed to create synergy for future successes.

Communities around the world have been increasingly adopting the concepts and principles of intelligent communities and integrating them into their strategic plans. The global network Intelligent Community Forum (ICF) describes broadband, knowledge workforce, innovation, digital equity, sustainability and advocacy as the pillars of an intelligent community as defined in Exhibit 1.

Exhibit 1 - Six Pillars of Intelligent Community

Broadband (B) – No longer a luxury or a medium for entertainment, intelligent communities understand that broadband is the next essential utility and must be an ‘always on’ service, no different than water, electricity, etc.

Knowledge Workforce (K) – Intelligent communities demonstrate the ability to develop a qualified workforce from shop floor to research lab, construction site to corporate headquarters. Not only do they grow this knowledge workforce, intelligent communities understand the significance of retention and expansion of the workforce.

Innovation (I) – 80% of all economic growth comes from the development and use of technology. Intelligent communities recognize the importance of broadband as the knowledge pipeline that is helping innovators to learn more and at higher rates of speed than ever before. Broadband also allows small and medium sized enterprises (SME's) to access creators/innovators globally.

Digital Equality (D) – Intelligent communities walk the talk on closing the digital divide and know that adequate connectivity is paramount for all citizens. Intelligent communities promote digital equality and employ continuous improvement measures to minimize exclusion. Promoting digital equality means ensuring that broadband is accessible and affordable, and educating on how to adopt the technology.

Sustainability (S) – Economic growth consumes resources and produces waste. Intelligent communities understand that they need to focus on growth while reducing the environmental impact of that growth. It is also critical to maintain the ability of future generations to grow in the same way.

Advocacy (A) – Intelligent communities recognize the change requirement and then engage leaders, citizens, businesses and institutions. They understand the challenges that change brings, identify opportunities for positive change and most importantly become change champions.

With the existing knowledge workforce, industrial infrastructure and established innovation ecosystem, Sarnia-Lambton is on the path to becoming a leading intelligent community. Sarnia-Lambton has been named a Top 21 Intelligent Community in the world for 2016, 2017, 2018, and a Top 7 Intelligent Community in the world in 2019 by ICF. Sarnia-Lambton is determined to become a leading intelligent community which, through crisis or foresight, has come to understand the challenges of today's broadband/global economy and has taken conscious steps to create an economy capable of prospering in it.

To continue to prosper intelligently into the future, Sarnia-Lambton has adopted the community-focused model as shown in Exhibit 2, which includes entities and associated actions. The betterment of the community is the primary focus of all actions. In Intelligent Sarnia-Lambton, the economy, comprised of industries and businesses, thrives because of fundamentals created by facilitative municipalities and institutions. In Intelligent Sarnia-Lambton, the community can set its own goals and achieve them through the means collectively established.

Exhibit 2 - Intelligent Sarnia-Lambton Community Focused Model



Facilitative municipalities and institutions are expected to lead the community towards prosperity, promote the region and facilitate the enhancements of the six pillars of an intelligent community. Industries and businesses collaborate and continuously innovate and diversify the economy. The prospering community at the top of the model actively engages in community affairs, leads sustainability initiatives and creates a work-life balanced community.

Three stakeholder input workshops were conducted to gather public input into the strategic plan for Intelligent Sarnia-Lambton. The strategic plan of Intelligent Sarnia-Lambton is prepared around the actions shown in Exhibit 2 based on the outcomes of the stakeholder input workshops and the six pillars of an intelligent community. The strategic plan offers the opportunity for municipalities, institutions, industries, businesses and residents in Sarnia-Lambton to work in partnership to the achieve the common goal of becoming a leading intelligent community.



FACILITATIVE MUNICIPALITIES AND INSTITUTIONS

2. FACILITATIVE MUNICIPALITIES AND INSTITUTIONS

Lambton consists of 11 local municipalities plus the county. Local municipal populations range from approximately 700 to 72,000. The region is also home to a number of leading institutions/organizations including Lambton College, Western Sarnia-Lambton Research Park, Sarnia-Lambton Economic Partnership, local Chamber of Commerce, Sarnia-Lambton Business Development Corporation and Bio-industrial Innovation Canada. These groups are leading Sarnia-Lambton's growth as an intelligent community, promoting the region and facilitating the enhancements of the six pillars of an intelligent community.

Exhibit 3 provides the brief descriptions of the actions of facilitative municipalities and institutions with strategic objectives. The pillars of an intelligent community expected to be enhanced by the proposed strategic plan are also listed. There are a number of ongoing initiatives which would strengthen Sarnia-Lambton as an intelligent community. The selected ongoing initiatives are also mentioned as showcase initiatives in Exhibit 3 with the follow-up later in this section.

Exhibit 3 - Strategic Plans Associated with Actions of Facilitative Municipalities and Institutions

ACTION	BRIEF DESCRIPTION	STRATEGIC PLAN	SHOWCASE INITIATIVE
Lead	Lead Sarnia-Lambton towards an intelligent community by envisioning trends and issues	Adopt initiatives such as open data policies in order to support prompt decision making and to improve operation efficiencies (B,K,I,D,S,A)	Lambton college strategic plan with the 4th industrial revolution envisioned
Promote	Increase awareness of intelligent community initiative among local residents and promote Sarnia-Lambton nationally and internationally	Develop a digital promotion strategy for governments, institutions, businesses and residents (A)	Sarnia-Lambton Economic Partnership
Facilitate	Facilitate the enhancement of intelligent community pillars	Investigate the business cases to support the pillars and explore funding models focusing on private-public-partnership (B,K,I,D,S,A)	Bluewater Regional Networks

**Note: B,K,I,D,S,A are six pillars of an intelligent community described in Exhibit 1*

2.1 LEAD

In Intelligent Sarnia-Lambton, municipalities and institutions play crucial roles and provide effective leadership to the community. They envision trends and issues and guide the community to become resilient and prosperous. One possible lead initiative for municipalities and institutions is to adopt open data policies to support prompt decision making and to improve operation efficiencies. The open data system, which is increasingly common in digitally advanced communities around the world, will allow municipal governments and institutions to collect data and analyze and share information. It could promote innovation and also be integrated with services provided to the general public.

The participants of the stakeholder input workshops highlighted the strengths of industries in Sarnia-Lambton, especially the petrochemical, biochemical and agricultural sectors. They also raised the concerns of challenges being faced by businesses including stagnant population, lack of infrastructure and potential unemployment issues with rapidly changing technologies. One of the prominent trends at present is the unfolding of the fourth industrial revolution, which refers to the extensive embedment of information and communication technologies in societies. The breakthroughs of emerging technologies can be seen in a number of fields, including robotics, artificial intelligence, nanotechnology, quantum and cloud computing, 3D printing, smart homes and autonomous vehicles. Sarnia-Lambton needs to be well-positioned to align its economy with the fourth industrial revolution to ensure continued prosperity.

Showcase Initiative 1 – Lambton College Strategic Plan

Lambton College, which was the second college in Ontario, officially opened in 1966. It has been the leading institution in Sarnia-Lambton ever since. Lambton College has worked in partnership with Sarnia-Lambton Economic Partnership, Western Sarnia-Lambton Research Park and other community partners to create a region of innovators, working together to strengthen the local economy and meet industry demand for skilled employees. Chemical Production & Power Engineering Technology (CPET) is one of the best nationally and internationally known programs at Lambton College for training advanced level operators for various industrial sectors, most notably in the petrochemical and energy streams. Lambton College offers a wide range of programs to produce the knowledge workforce needed by diverse industries in Sarnia-Lambton and Ontario.

Lambton College recently released its strategic plan which envisions the fourth industrial revolution. It aligns College programs with what is going to be coming next. The fourth industrial revolution is expected to be marked by emerging technologies in a number of fields, including robotics, artificial intelligence, nanotechnology, quantum computing, industrial internet of things, fully autonomous vehicles, advanced wireless technologies and additive manufacturing/3D printing. Lambton College, with its award-winning applied research and innovation, is leading Sarnia-Lambton with its vision and expertise in producing an exceptional knowledge workforce.

2.2 PROMOTE

Intelligent communities understand the importance of promoting and leveraging the strengths of the community in attracting businesses and residents. Several participants of the stakeholder input workshops strongly suggested that the intelligent community initiatives should be promoted among local residents and nationally and internationally. In the age of IoT, the strategic plan is to develop a digital promotion strategy for the governments, institutions, businesses and residents of Sarnia-Lambton. The strategy should consider the effective promotion of Sarnia-Lambton through multiple digital platforms.

Sarnia-Lambton is strategically located from geographic and economic perspectives. The positive physical attributes of the region such as a trained workforce, access to US and Canadian markets, and access to natural gas, were highly praised by participants of the stakeholder input workshops. Residents are proud of being in a vibrant community with established industries and businesses. Some participants are aware of the expanding innovation ecosystem in Sarnia-Lambton. The participants overwhelmingly believe that Sarnia-Lambton should step up its efforts to promote the region in attracting businesses and residents. Sarnia-Lambton Economic Partnership (SLEP) is the institution leading such efforts.

Showcase Initiative 2 – Sarnia-Lambton Economic Partnership

The Sarnia-Lambton Economic Partnership (SLEP) is the one-stop shop for economic development services whose mission is to promote the distinctive advantages that Sarnia-Lambton has to offer to companies and residents. By coordinating community-based economic development initiatives and working to maintain a commercially attractive environment, SLEP fosters new business creation as well as helps ensure that established firms remain and grow in Sarnia-Lambton.

SLEP was recognized by Site Selection Magazine as one of the “Top Ten Canadian Economic Development Groups” in 2007, 2008, 2010, 2014 and 2018. Local business leaders, educational institutions, municipal governments and community groups are the collaborators of SLEP allowing Sarnia-Lambton as a whole to benefit from coordinated economic development initiatives. SLEP has promoted Sarnia-Lambton in a number of trade shows, economic development and other conferences around the world.



2.3 FACILITATE

The continuous enhancements of the six pillars of an intelligent community are vital for Sarnia-Lambton in becoming a leading intelligent community. In a free market economy, the participation of businesses in those enhancements is critical. The facilitation of municipalities and institutions will be instrumental to improve the criteria established by the six pillars. A number of action items on the six pillars of an intelligent community were suggested in the stakeholder input workshops. The strategic plan will analyze the business cases of those action items. Some action items, such as investing in broadband infrastructure in a small rural community, may be too risky for the private sector. In such cases, the private-public-partnership funding model should be considered.

Sarnia-Lambton needs to invest to become a leading intelligent community. However, local municipalities have limited resources with pressing issues. It is, therefore, important to prioritize investments considering economic, social and environmental merits. The enhancements of the six pillars of an intelligent community are sometimes driven by market forces. The municipal, provincial and federal governments could reduce the business risk of private sector in some cases. Bluewater Regional Networks is a showcase initiative in the region. It is a community-owned for-profit private company providing services to the underserved areas of Sarnia-Lambton.

Showcase Initiative 3 – Bluewater Regional Networks

Bluewater Power was created in 2000 with the privatization and amalgamation of 6 municipal electrical distribution commissions. It is now a community-owned for-profit private company, and closely regulated by the Province of Ontario. In 2015, Bluewater Power decided to launch Bluewater Regional Networks. Bluewater's goals were utility diversification, economic opportunity, internet service for underserved areas of Sarnia-Lambton, and digital cohesion for area stakeholders.

In their first year, Bluewater Regional Networks built 15km of fibre backbone, and by the end of 2016 began connecting commercial customers – a rapidly implemented 1-year success story. Bluewater Networks also offers open network access for local ISP companies, and is in discussion with a national incumbent that has expressed interest in accessing Bluewater's fibre. Bluewater Regional Networks also facilitates ORION Network access – notably a 10-Gigabit service to Lambton College.

Bluewater Regional Networks collaborates with local cooperatives and private companies (Teksavvy Solutions, Execulink Telecom, Brooke Telecom and Hay Communications) to achieve the ultimate goal of providing fully redundant carrier-grade high speed fibre internet throughout Sarnia-Lambton.

THRIVING ECONOMY



3. THRIVING ECONOMY

Industries and businesses in Sarnia-Lambton benefit from unique resources, favourable geographic location, the welcoming community and strong support from local governments. Sarnia-Lambton will continue to leverage those strengths. The current and emerging industries and businesses need to adapt new technologies in this rapidly changing economic environment. Exhibit 4 describes industries and businesses in an intelligent community.

Exhibit 4 - Strategic Plans Associated with Actions of a Thriving Economy

ACTION	BRIEF DESCRIPTION	STRATEGIC PLAN	SHOWCASE INITIATIVE
Collaborate	Collaboration among industries and businesses on common challenges	Develop a collaborative information system to address skills gap (K)	Sarnia-Lambton Industrial Alliance
Promote	Introduce new products/services through research and development	Create a task force to increase awareness of R&D support available in Sarnia-Lambton to industries and businesses (I)	Innovation Bridge
Diversify	Establish new economic sectors	Evaluate new economic sectors which would significantly benefit from the strengths of Sarnia-Lambton (K,I,S)	Bioindustrial Innovation Canada/Western Sarnia-Lambton Research Park

**Note: B,K,I,D,S,A are six pillars of an intelligent community described in Exhibit 1*



3.1 COLLABORATE

In Intelligent Sarnia-Lambton, industries and businesses collaborate on advocacy and common challenges. One of the challenges being faced by industries and businesses are skills gaps, which is the difference between skills employers need and skills the workforce offers. A collaborative information system could be developed to address the skills gap issue. This system would track the job openings and employment data in Sarnia-Lambton, the current workforce and talents being produced by local trade schools and academic institutions. The data analysis, trend projections and other decision-making support offered by such an information system will help Sarnia-Lambton in reducing skills gaps, especially in trade and ICT professionals.

Sarnia-Lambton has been a model of collaboration among industries and businesses. Sarnia-Lambton Environmental Association (SLEA) and chemical emergency response protocols developed by local industries and municipalities are the success stories of industries and businesses working together. The participants of stakeholder input workshops recognized the exceptional talent pool, including those with R&D skills, developed by local industries for decades. Leveraging those talented professionals is beneficial and important in Sarnia-Lambton, and industries and businesses are expected to continue the productive collaboration on common issues.

Showcase Initiative 4 – Sarnia-Lambton Industrial Alliance

The Sarnia Lambton Industrial Alliance is a coalition of over 30 Sarnia-Lambton companies that specialize in all aspects of metal fabrication, engineering, environmental, and support services geared to manufacturing industries.

Established in 2010 through the efforts of the Sarnia-Lambton Economic Partnership and a forward-thinking group of Sarnia-Lambton companies, the Industrial Alliance came together to combat a downturn in the area’s major petrochemical sector and the resulting decline in spinoff projects for Sarnia-Lambton service companies. Since then, member companies have come together to present themselves and their unique alliance to markets outside of the Sarnia-Lambton area. The result has been a significant increase in external contracts for Sarnia-Lambton companies and reliable expert assistance from companies that perform to the highest standards.



3.2 INNOVATE

In today's knowledge-based economy, innovation is the key for success and long-term survival. Many industries and businesses, especially small and mid-sized enterprises, have limited resources to convert new technologies and business ideas to commercial ventures. Governments and institutions around the world are closing this gap by establishing innovation ecosystems and providing commercialization support. Sarnia-Lambton is proud to be ahead of the curve by having a well-established innovation ecosystem with several institutions as strategic players, including Western Sarnia-Lambton Research Park, Lambton College, Bioindustrial Innovation Canada, Sarnia-Lambton Business Development Corporation and Sarnia-Lambton Economic Partnership. The strategic plan proposes the creation of a task force to increase the awareness of R&D and commercialization support offered in Sarnia-Lambton.

As discussed by participants at the stakeholder input workshops, local industries and businesses should understand that innovation is a must in this competitive economic environment and they should be aware that a wide range of supports are available in Sarnia-Lambton. Although the innovation ecosystem is well-established in Sarnia-Lambton, improvements could be made in full-capacity utilization, in collaboration among the institutions and in expanding to new areas such as artificial intelligence. Innovation Bridge is an example of dedicated institutions and industries collectively providing innovation and commercialization support to new business ventures.

Showcase Initiative 5 – Innovation Bridge

Innovation Bridge was founded in 2017 by a group of dedicated organizations from the private and public sectors who wanted to raise the profile of the Sarnia-Lambton region as a community for innovation-led industries. Their vision is to build an innovative alliance which provides support to private and public enterprises to develop, evaluate and commercialize innovative technologies. Innovation Bridge is an industry-led innovation centre that supports, fosters and celebrates a community of innovative companies. It provides support to companies at all stages of growth and development - from start-ups to rapidly-growing small and mid-sized enterprises (SMEs). Areas of focus for Innovation Bridge include information technology and communication, advanced manufacturing, automation and clean, green and sustainable technologies.

The vision of Innovation Bridge is in alignment with the Sarnia-Lambton innovation strategy which supports targeted efforts in investment attraction, business retention and expansion, cluster development and entrepreneurship. The founding partners of this Sarnia-Lambton commercialization alliance are Sarnia-Lambton Economic Partnership, Lambton College, Western Sarnia-Lambton Research Park, Bioindustrial Innovation Canada, Bluewater Energy Park, Bio-industrial Park and Bluewater Regional Network.

3.3 DIVERSIFY

For decades, the petrochemical and agricultural sectors have been some of the most well-known industries in Sarnia-Lambton. Prominent industries have been diversifying into several areas, including automotive, engineering, instrumentation, bio-based fuels and chemicals, metal and plastics fabrication, machining and environmental services. Industries and businesses must continue to diversify and adapt to remain relevant in the new economy. The proposed strategic plan is to evaluate and identify new economic sectors which would significantly benefit from the strengths of Sarnia-Lambton based on the current industry and business landscape in the region.

One of the success stories in Sarnia-Lambton is leveraging the petrochemical and agricultural strengths of the region to establish a biohybrid chemical cluster, which is the largest in Canada. This success could be repeated with a focus on new economic sectors that would have considerable advantages by locating in Sarnia-Lambton. The existing industries and businesses in Sarnia-Lambton should be encouraged and supported to diversify their products and services. The facilitative roles of Lambton College, Western Sarnia-Lambton Research Park, Bioindustrial Innovation Canada and Sarnia-Lambton Economic Partnership in diversifying the economy were acknowledged by participants of the stakeholder workshops.

Showcase Initiative 6 – Western Sarnia-Lambton Research Park/Bioindustrial Innovation Canada

The Western Sarnia-Lambton Research Park serves as a strong link between concept and commerce, and a key contributor to the movement of an idea or a discovery from the lab bench to the marketplace. The Research Park's Commercialization Centre is Canada's largest clean-tech incubator that focuses on large-scale industrial technology, including fuels, products and processes. Since its establishment in 2003, Western Sarnia-Lambton Research Park has been instrumental in diversifying the economy of the region.

Bioindustrial Innovation Canada (BIC) located at Western Sarnia-Lambton Research Park is a nationally focused not-for-profit business accelerator with the vision to create jobs and economic values sustainably for Canada. A focus for BIC has been supporting the Sarnia-Lambton region in becoming a world-scale Hybrid Chemistry Cluster. Working within the traditional petrochemical cluster, Sarnia-Lambton is well positioned to become a leader in industrial bioproducts manufacturing. BIC is enabling Ontario and Canada to become globally recognized for converting renewable resources such as agricultural and forestry by-products and residues, into value-added bioenergy, biofuel, biochemical and biomaterials. These are used in a wide range of commercial applications along the chemistry value to advanced manufacturing including automotive and aerospace.

A large, stylized number '4' graphic in a dark purple color, positioned on the right side of the page. It is composed of several geometric shapes: a diagonal bar, a horizontal bar, and a vertical bar, all in a dark purple shade. The background is a lighter purple gradient.

PROSPERING COMMUNITY

4. PROSPERING COMMUNITY

The residents of Sarnia-Lambton are able to obtain the best quality of life from social, economic and environmental perspectives through living in an intelligent community. The wellbeing of the community is the primary focus of all actions. In Intelligent Sarnia-Lambton, the community will have an opportunity to set its own goals and achieve them through collectively established means. Consultation and collaboration in all communities within Sarnia-Lambton, whether they be urban or rural, first nations, francophone, first generation Canadian, decedents of the first European settlers or new immigrants, is encouraged and promoted.

Exhibit 5 - Strategic Plans Associated with Actions of Prospering Community

ACTION	BRIEF DESCRIPTION	STRATEGIC PLAN	SHOWCASE INITIATIVE
Engage	Participate actively in community governance and advocacy	Develop a digital community engagement strategy (I,D,S,A)	Lambton Community Health Study
Sustain	Create community-led initiatives in social, environmental and cultural issues	Invite proposals addressing social, environmental and cultural issues from existing and new community groups (S,A)	Link2Feed
Balance	Establish Sarnia-Lambton as a prospering and work-life balanced community	Evaluate work-life balance projects proposed by community groups (S,A)	Artwalk

**Note: B,K,I,D,S,A are six pillars of an intelligent community described in Exhibit 1*



4.1 ENGAGE

An intelligent community is one which is informed, consulted and empowered. Using technologies and IoT, residents are able to engage in community affairs, governance and advocacy. The strategic plan proposes the creation of a digital community engagement strategy. The digital platforms chosen should allow the flow of information to and from the community, and be aligned with the open data policies and initiatives of local municipalities.

A highly engaged community such as Sarnia-Lambton understands the issues and challenges of municipalities, institutions, industries and businesses, and the community itself. Open engagement, similar to an open innovation system, will lead to great ideas and collective problem solving. Stakeholder input workshop participants stressed the importance of greater community involvement in the age of IoT. Sarnia-Lambton has a long and proud history of community engagement. The Lambton Health Study is a showcase initiative of how the community was informed and consulted on an important subject.

Showcase Initiative 7 – Lambton Community Health Study

In early 2007, a meeting of community leaders and stakeholders took place and it was agreed that a study of the health effects associated with exposure to environmental emissions is a public health priority. The health study Board of Directors was formed in 2008. The Board has representation from a diverse group of local stakeholders including municipalities, first nations, business, labour, industry, occupational health, victims of occupational illness, and public health. The County of Lambton has committed in-kind support for the health study group.

The Health Study Board has developed a multi-year plan which includes three distinct phases. Phase I involved the establishment of a community-based governance structure and the identification of a Board of Directors to oversee the project. Phase II included comprehensive literature review, community engagement, development of research questions and the call for proposals for Phase III. Phase III was the undertaking of identified studies, communication of the results to Lambton residents and stakeholder groups, identification of next steps and remedial initiatives. The Sarnia-Lambton community was effectively engaged for this study, and the community demonstrated its willingness and capability in addressing important community issues.



4.2 SUSTAIN

Intelligent communities take sustainability seriously. Economic development should be in synergy with the social, environmental and cultural aspects of the community. The underlying belief in Intelligent Sarnia-Lambton is that the community understands best when it comes to sustainable issues. Community-led social, environmental and cultural initiatives will be cultivated and supported by governments, institutions, industries and businesses. The strategic plan invites proposals addressing social, environmental and cultural issues from community groups to compete for funding. Local municipalities can also endorse the selected proposals for additional funding from provincial and federal governments.

Like other communities around the world, Sarnia-Lambton has a number of social, environmental and cultural challenges. The issues raised by stakeholder input workshop participants included youth retention, opioid abuse, drug addiction, mental health, poverty, rural development, natural environment, aging infrastructure, community image, stagnant population and access to arts and culture. In Intelligent Sarnia-Lambton, the community will be empowered to help resolve these sustainability issues. A showcase initiative worth mentioning is how Sarnia-Lambton supported Link2Feed in tackling a social issue in an innovative manner.

Showcase Initiative 8 - Link2Feed

Sarnia-Lambton provided commercialization support to Link2Feed, an exceptional showcase initiative of social innovation. The president of Link2Feed, Emily Branton, praised Sarnia-Lambton as a breeding ground for social innovation and as a generous and socially aware community.

Link2Feed provides cloud software services for the Emergency Food sector: food bank pantries, social service outreach, CSFPs (Commodity Supplemental Food Programs), school feeding programs, and education on the realities of hunger and food insecurity. The software is designed for ease of use by agency workers that might not be comfortable with technology. Link2Feed is paperless and mobile-friendly, saves countless hours on reporting and enables its clients to understand who they serve, and how their services are making a sustainable difference in their community. Organizations can collect operational and client data, demonstrate value to their donors, and accelerate funding processes.

In 2015, Link2Feed launched Version 3 of their software, developed with CubeIT, a software services agency at Lambton College and Western Sarnia Lambton Research Park. Today, Link2Feed serves about 2,300 active client organizations, has processed and tracked 38 million food transactions and touched over 1 million lives.

4.3 BALANCE

The residents of Intelligent Sarnia-Lambton live in a work-life balanced community. As a waterfront region bordering on the US with culturally rich sub-communities, Sarnia-Lambton has the potential to offer exceptional life-balancing activities and events to residents with different interests. Entertainment and recreation activities are an important part of the quality life Sarnia-Lambton residents lead. Industries and businesses also have a vested interest in participating in these life-balancing initiatives for their employees and families. The proposed strategic plan evaluates work-life balance projects proposed by community groups.

The image of Sarnia-Lambton as a work-life balanced community is valuable in attracting businesses and residents to the area. Many stakeholder input workshop participants are very optimistic on what Sarnia-Lambton can offer because of its positive physical and community attributes. If the community is given opportunities to create work-life balancing activities, Intelligent Sarnia-Lambton can expect exceptional outcomes. Artwalk is the community-led showcase initiative for work-life balance in Sarnia-Lambton. Similarly, the creation and maintenance of blue flag beaches encourage people to relax and enjoy outdoor activities. Grand Bend, which is best known for its beautiful beach, has a year-round population of about 2000 people and attracts approximately 60,000 people in the summer months.

Showcase Initiative 9 – Artwalk

Artwalk is one of the most anticipated summer events in Sarnia-Lambton. This annual weekend event has become a major attraction in the region with approximately 25,000 visitors every year. During the event, the streets of Sarnia downtown are filled with artists, crafts people, food vendors, live performances, and children's activities. Artists use some vacant downtown properties as temporary galleries and installation spaces to display their work and interact directly with the public.

Additionally, Artwalk promotes creativity, ecological awareness and sustainable solutions. The collaboration among arts and culture groups, musicians, environmentalists, individual artists and sponsoring industries and businesses is the hallmark of Artwalk demonstrating that the Sarnia-Lambton community knows how to celebrate and enrich the quality of life.



BUILDING CAPACITY FOR CONTINUOUS IMPROVEMENT

5. BUILDING CAPACITY FOR CONTINUOUS IMPROVEMENT

This strategic plan is an essential first step in methodically incorporating the principles of intelligent communities into the planning process of Sarnia-Lambton. A number of intelligent initiatives and positive attributes are already in place in Sarnia-Lambton. This plan will result in better coordinated, planned and executed strategies to realize the full potential of being an intelligent community. Moreover, it will build capacity in Sarnia-Lambton by enhancing the cycle of continuous improvement for the region.

Exhibit 6 - Continuous Improvement Cycle



The Intelligent Sarnia-Lambton initiative has been led by the task force members from Bluewater Power and Bluewater Regional Networks, the County of Lambton, the City of Sarnia, Sarnia-Lambton Economic Partnership, Lambton College, Western Sarnia-Lambton Research Park and Brooke Telecom. This capacity could be significantly enhanced by creating an ICF institute in Sarnia-Lambton providing more resources for the continuous improvement of the strategic plan and its implementation. Sarnia-Lambton would, therefore, become an ICF node on the global network, strengthening its leading role, receiving well-informed guidance from the global think tank and learning and sharing information with other intelligent communities in Canada and around the world.

A1. INTELLIGENT SARNIA-LAMBTON TEAM



Chris Gould
*Bluewater Power and
Bluewater Regional
Networks*



Chantelle Core
*Sarnia-Lambton
Economic Partnership*



Paul West
*Bluewater Regional
Networks*



Katherine Albion
*Western Sarnia-
Lambton Research Park*



Andrea Hands
Lambton College



Mark Dillon
City of Sarnia



Geoff Greening
Brooke Telecom



Robert Wilks
County of Lambton



Mehdi Sheikhzadeh
Lambton College



Matthew Slotwinski
*Sarnia-Lambton
Economic Partnership*



Ron Van Horne
County of Lambton

A2. SUMMARY REPORT OF STAKEHOLDER INPUT WORKSHOPS

(Attached)



County of Lambton
789 Broadway Street, Box 3000
Wyoming, Ontario N0N-1T0
519-845-0801
www.lambtononline.ca

City of Sarnia
255 North Christina Street, Box 3018
Sarnia, Ontario N7T-7N2
519-332-0330
www.sarnia.ca

Sarnia-Lambton Economic Partnership
Western Sarnia-Lambton Research Park
Building 1050, Suite 100
1086 Modeland Road
Sarnia, Ontario N7S-6L2
519-332-1820
www.sarnialambton.on.ca