

SARNIA-LAMBTON
ONTARIO • CANADA

SARNIA-LAMBTON
Economic Partnership
Powering a Sustainable World®

HYBRID CHEMISTRY CLUSTER

Sarnia-Lambton Hybrid Chemistry Cluster

HYBRID CHEMISTRY CLUSTER INDUSTRIAL PARKS

- 1 Bio-Industrial Park Sarnia
- 2 Bluewater Energy Park
- 3 St. Clair Industrial Park
- 4 Chippewas of Sarnia Industrial Park
- 5 Sarnia Research & Business Park

WESTERN SARNIA-LAMBTON RESEARCH PARK

- i Sarnia-Lambton Economic Partnership
- ii Bioindustrial Innovation Canada
- iii Bluewater Technology Access Centre
- iv Woodland Biofuels
- v Origin Materials
- vi Forward Water Technologies

LAMBTON COLLEGE

- i Centre of Excellence in Energy & Bio-Industrial Technologies
- ii Bio-Industrial Process Research Centre
- iii Centre for Industrial Material Development
- iv Industrial Research Chair for Colleges
- v Lambton Energy Research Centre
- vi Lambton Water Centre

PROPOSED INDUSTRIAL SITES

- Benefuel
- AChT (Advanced Chemical Technologies)
- Origin Materials
- Imtex Membrane Corp
- Forge Hydrocarbons

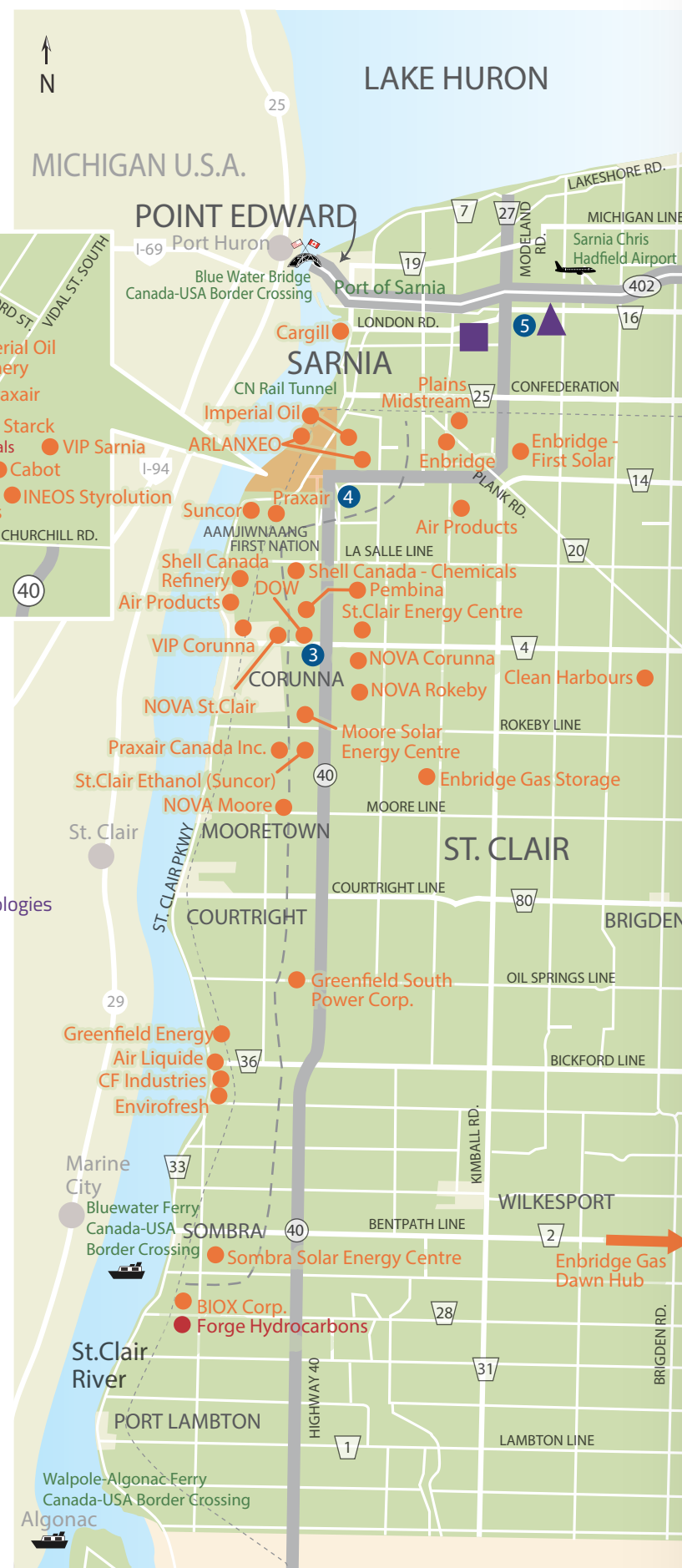
- Provincial Highway
- County Road
- Railway CSX
- - - Railway CN



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OVERVIEW

The birthplace of Canada's petrochemical industry, dating back to the 1850s, the area represents the country's second largest collection of companies in the petrochemical and refining sector. Paired with Ontario's most abundant supply of agricultural feedstocks, Sarnia-Lambton has become Canada's premier location for the development of and investment in clean, green, and sustainable chemistry technologies.

The Sarnia-Lambton Hybrid Chemistry Cluster is made up of more than thirty-five interrelated chemical facilities with processes ranging across the hybrid chemistry value chain, integrating the traditional hydrocarbon-based economy with the industrial bio-economy for the production of high-value products. Through an investment focus connecting emerging economic development opportunities for products made from renewable resources—bio-fuels, bio-materials, and renewable chemicals—with existing industry and infrastructure, the area is recognized around the world as a centre

for bio-industrial manufacturing and research and development.

The region's excellent location, access to raw materials and transportation routes to the markets of the world, and supply of experienced labour ensure that Sarnia-Lambton is well positioned to be a leader in the growth and development of bio-based technologies at every stage, from bench scale to pilot plant to full-scale commercialization.

Fostered by key local and regional partnerships including industry, colleges, research parks, and government, the transformation and diversification of the local economy to support clean and green chemistry opportunities, has resulted in the Sarnia-Lambton Hybrid Chemistry Cluster—a cluster that allows bio-based industry to increase productivity and operational efficiency, stimulate and enable innovation, and facilitate commercialization and new business formation.

WHY CHOOSE SARNIA-LAMBTON?

- A culture of collaborative innovation based on recognition of the area's natural fit for merging hydrocarbon-based and industrial bio-based economies.
- Established process infrastructure ideally suited to emerging bio-based industries, can save new projects twenty percent on capital costs. This is supported by an industrial base of more than 80 local firms with expertise from plant concept, construction, full operation, and maintenance.
- Outstanding access to markets via road, rail, and deep sea port transportation infrastructure.
- Proximity to oil, natural gas, and bio-based feedstocks. These include substantial quantities of soybeans, wheat, corn, agricultural residues, sugar beets, and related biomass.
- Strong government support including a competitive corporate tax environment, incentives, and grants.
- Skilled workforce specializing in skills required for the hybrid chemistry industry.
- Education, innovation, and research & development emphasize the commercialization hub process.





LOCATION

Located on the Canada/USA border in the heart of the Great Lakes Basin and in Ontario's most abundant agricultural area, Sarnia-Lambton is a cost-effective choice for businesses looking for efficient access to important markets in Canada, the United States (US) and Mexico.

AIRPORT	KM	TIME (hrs driving)
Sarnia (YZR)	n/a	n/a
London (YXU)	70	0.75
Flint (FNT)	120	1
Detroit (DTW)	130	1.25
Toronto (YYZ)	225	2.25

CITY	KM	TIME (hrs driving)
Detroit, MI	105	1
Toronto, ON	240	2.5
Buffalo, NY	290	2.75
Cleveland, OH	375	3.75
Cincinnati, OH	525	5
Chicago, IL	550	5.25
Pittsburgh, PA	560	5.25
Indianapolis, IN	565	5.5
Ottawa, ON	675	6.25
Milwaukee, WI	710	6.75
Montreal, QC	765	7.5
New York, NY	920	9
Washington, DC	935	9
Nashville, TN	960	9
St. Louis, MO	980	8.75
Boston, MA	1015	9.5

Through the United States-Mexico-Canada Agreement (USMCA), companies in Sarnia-Lambton have direct highway access to a market of nearly 400 million people.

SARNIA-LAMBTON HYBRID CHEMISTRY COMPLEX

UNIQUELY POSITIONED FOR LEADERSHIP IN SUSTAINABILITY



UNIQUE ACCESS TO FOSSIL BASED AND RENEWABLE MATERIALS

SUCCESS PROFILES



Suncor operates the largest ethanol facility in Canada, producing over 400 million litres of fuel-grade ethanol per year. The plant uses 20% of the corn grown in Ontario.



Woodland Biofuels operates an integrated end-to-end biomass-to-cellulosic ethanol demonstration plant at the Western Sarnia-Lambton Research Park, utilizing waste biomass as feedstocks.



Origin Materials is currently constructing a commercial-demo facility at the Bio-Industrial Park Sarnia to produce bio-PET. The company currently operates a pilot plant at the Western Sarnia-Lambton Research Park for the production of terephthalic acid and FDCA.



LCY Biosciences Inc., a division of LCY Chemical Corp., owns and operates the 30,000 metric ton per year bio-succinic acid plant formerly operated by BioAmber, producing bio-succinic acid, nutraceuticals and other biochemicals.

COMPANIES IN THE SARNIA-LAMBTON HYBRID CHEMISTRY CLUSTER

Italicized = Announced Facility

FOSSIL BASED

- Air Liquide
- Air Products
- ARLANXEO
- CF Industries
- DOW
- Enbridge Gas Inc.
- Imperial Oil
- INEOS Styrolution
- NOVA Chemicals
- Pembina
- Plains Midstream
- Praxair
- Shell
- Suncor
- TransAlta Energy

BIO/RENEWABLE BASED

- BIOX
- Cargill
- Cellulosic Sugar Producers Cooperative
- Enbridge
- Forward Water Technologies
- KmX Membrane Technologies
- LCY Biosciences
- Ontario Innovation Sugarbeet Processors Cooperative
- Origin Materials
- Suncor Ethanol
- Woodland Biofuels
- *Advanced Chemical Technologies (AChT)*
- *Benefuel*
- *Comet Bio*
- *Forge Hydrocarbons*
- *Imtex Membranes Corp.*

FEEDSTOCK AVAILABILITY


Facilities located in the Sarnia-Lambton Hybrid Chemistry Cluster take advantage of its unique location and infrastructure, which allow for the access of fossil based and renewable materials from various high-volume sources.

Sarnia-Lambton's progressive and proactive agricultural producers are a strategic partner in the Hybrid Chemistry Cluster. With over 500,000 acres of cultivated land, Lambton County is a leading Ontario producer of soybeans, winter wheat, corn, and sugar beets, as well as related agricultural by-products and wastes. The region is a one-day drive to 1.6 billion bushels of corn and 621 million bushels of soybeans, with Southwestern Ontario representing 3.8 million acres of farmland.

AGRICULTURE IS THE 2ND LARGEST INDUSTRY in Sarnia-Lambton following chemical manufacturing.

CORN, SOYBEANS, AND WHEAT

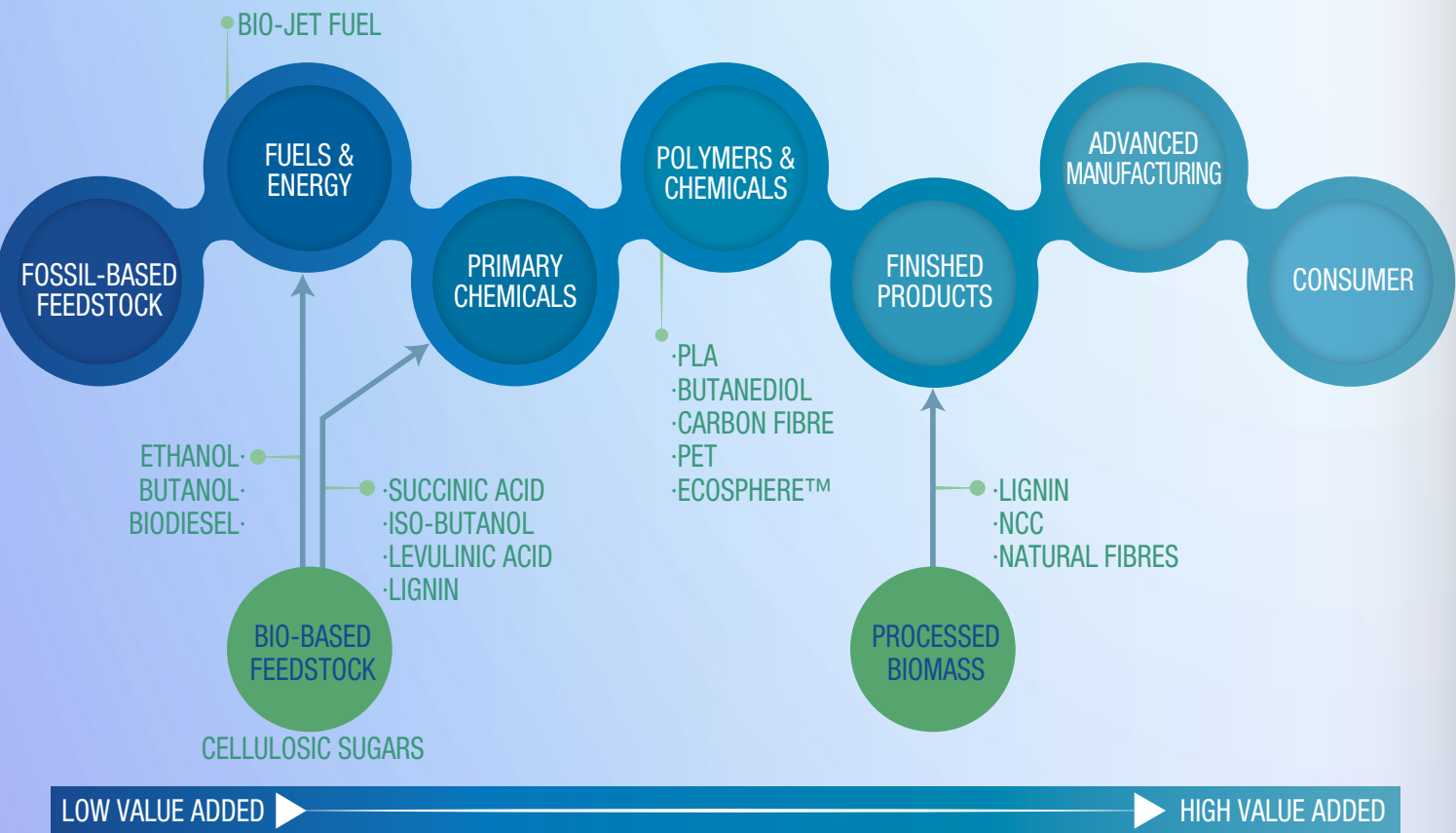
Representing the majority of agricultural production in Sarnia-Lambton, corn, soybeans, and wheat, are available in large quantities for the potential production of biochemicals, biofuels, and biomaterials.

 **CORN** – 21.5 MILLION BUSHELLS are produced in Sarnia-Lambton each year, with Southwestern Ontario capable of supplying 265 million bushels.

 **SOYBEANS** – Sarnia-Lambton produces over 15 MILLION BUSHELLS each year, while 121 million bushels are produced in Southwestern Ontario.

 **WHEAT** – 6 MILLION BUSHELLS are produced in Sarnia-Lambton each year, along with 72 million bushels produced in Southwestern Ontario.

HYBRID CHEMISTRY VALUE CHAIN



RESIDUAL BIOMASS

Corn stover and wheat straw represent the largest quantities of agricultural residues available as a process input. Sarnia-Lambton and surrounding Counties can provide more than 835,000 tonnes of total harvestable residues, while more than 2,100,000 tonnes are available throughout Southwestern Ontario, making the region an ideal location for large-scale bio-processing facilities utilizing biomass feedstocks.

The **CELLULOSIC SUGAR PRODUCERS CO-OPERATIVE (CSPC)** is an Ontario based farmer's co-operative that strives to develop new markets for crop residue materials that support new business opportunities such as extracting cellulosic sugars from crop residues. With this, farmers can explore new markets without having to compete for land. The CSPC is a key partner in the Sarnia-Lambton Hybrid Chemistry Cluster, especially as a partner in Comet Bio's planned commercial cellulosic dextrose facility.

PROCESSED SUGARS AND STARCHES

Processed sugars and starches are available in the Sarnia-Lambton region. Sarnia-Lambton is one of the only regions in Ontario where sugar beets are grown. Currently, 10,000 acres of sugars are produced in the area, with the potential for more than 30,000 new acres.

The **ONTARIO INNOVATIVE SUGARBEET PROCESSORS CO-OPERATIVE (OISPC)** was formed to investigate the potential supply of sugars derived from sugarbeets to companies manufacturing bio-based polymers and bio-based chemical production.

High purity sugar and starches are available in the Sarnia-Lambton area from Ingredion Canada Corporation, who owns and operates a wet mill in nearby London.

OTHER RENEWABLE OR WASTE FEEDSTOCK

Forestry biomass, municipal solid waste, and waste oils can also be available as raw materials for facilities in the Sarnia-Lambton Hybrid Chemistry Cluster.

Facilities have also sourced waste products through interconnections with existing petrochemical facilities. Examples of this have included processes to utilize waste carbon dioxide and methane as feedstocks for green technology processes.

FOSSIL BASED FEEDSTOCK

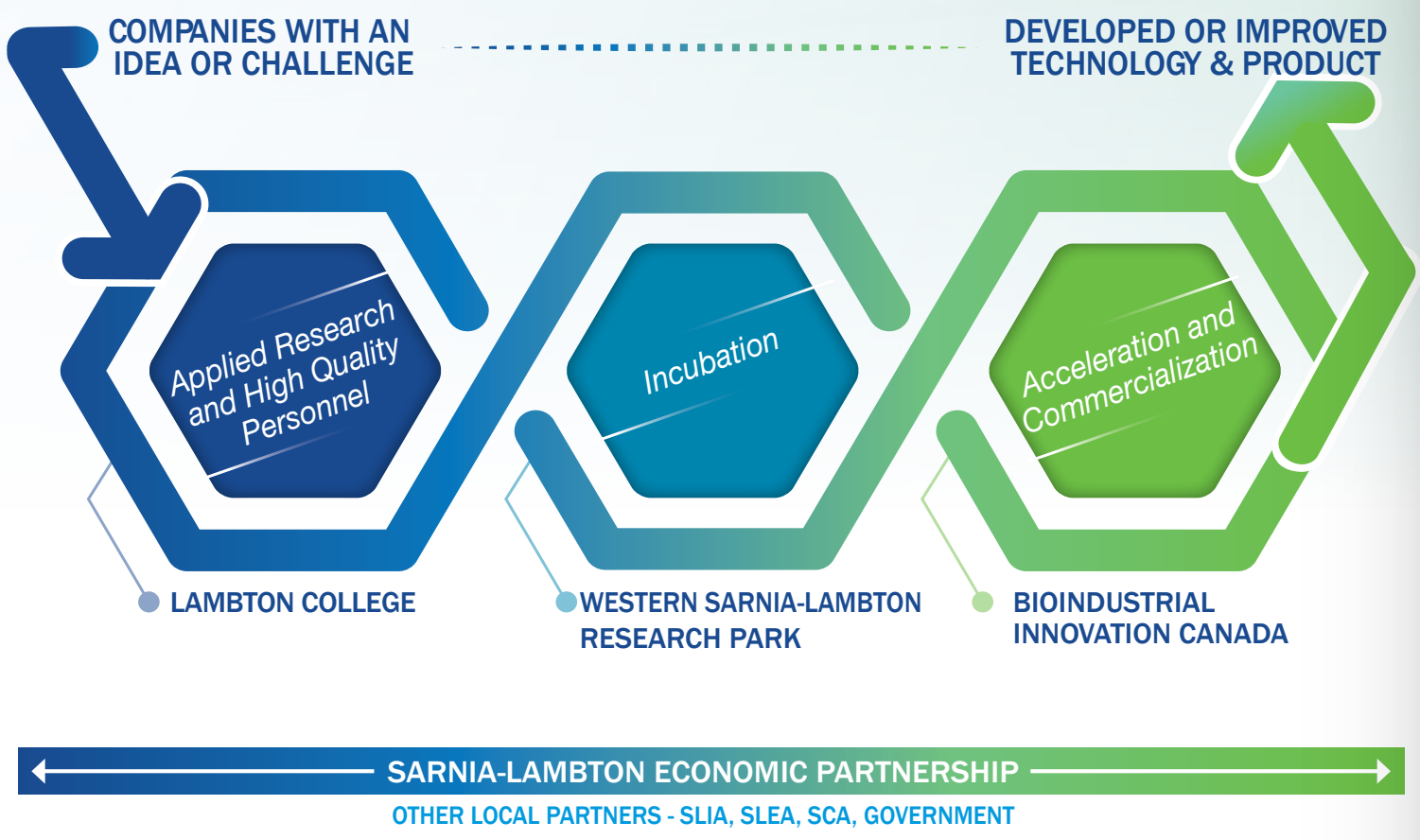
Mainly used to support the petrochemical and refining complex associated with the Hybrid Chemistry Cluster, an abundant supply of fossil based feedstock such as natural gas, crude oil, and bitumen is accessed from resources in Western Canada, while the Marcellus and Utica Shale plays provide an abundant source of natural gas and natural gas liquids. These feedstocks are accessible through an extensive network of pipeline and logistics infrastructure.



COMMERCIALIZATION HUB

The Sarnia-Lambton Hybrid Chemistry Cluster is supported through a commercialization hub process that encourages the development of an idea from research, to incubation, to acceleration and commercialization. This allows technologies and products to be developed from concept to production all while supported by local organizations and infrastructure, accelerating growth and increasing profitability.

Companies are currently operating industrial bio-based facilities at every stage, from bench scale to pilot plant to full-scale commercialization.



EDUCATION, INNOVATION, RESEARCH & DEVELOPMENT



Western Sarnia-Lambton Research Park

The 80-acre Western Sarnia-Lambton Research Park, comprised of five interconnected buildings totaling 288,000 sq.ft., is a joint initiative of the County of Lambton, the City of Sarnia, and Western University. The Research Park's Commercialization Centre is Canada's largest clean-tech incubator, serving as a key contributor to the movement of an idea or a discovery from the lab bench to the marketplace. Focused on the biotech, energy, chemical, and industrial processing sectors, tenants range from large multi-national companies, to non-profit organizations, to small start-up companies, and commercialization projects.

The Commercialization Centre provides client companies with access to over 50,000 sq.ft. of office, laboratories and pilot plant infrastructure for research, commercialization, and entrepreneurship.

Lab clients include the BioAnalytical Lab, Lambton Manufacturing Innovation Centre (LMIC), Centre for Industrial Material Development and the Lambton Water Centre (LWC).

Successful pilot projects have included: Origin Materials, Woodland Biofuels Inc, KMX, Forward Water Technologies, and many more.

The Research Park has won the following awards:

- 2016 – Outstanding Research Park Award – by the Association of University Research Parks
- 2015 – 5th Top Research Park in North America – by UBI Global
- 2014 – 7th Top Research Park in North America – by UBI Global



Bioindustrial Innovation Canada

Since its inception in 2008, Bioindustrial Innovation Canada (BIC) has developed a successful foundation by working nationally and internationally with multiple and diverse stakeholders in both industry and government. These collaborations help the development and commercialization of bio-based and sustainable chemistry-based products – including the development of Canada's first hybrid chemistry cluster in the heart of Canada's largest petrochemical cluster and the Southwestern Ontario agricultural community.

Through these efforts, BIC is accelerating the growth of the Sarnia-Lambton Hybrid Chemistry Cluster, a natural community to link the existing petroleum industry with the future bioeconomy and show how the two sectors can evolve and grow. BIC continues to build out sustainable value chains as well as creating highly qualified jobs and economic value in Canada.





Lambton College of Applied Arts and Technology

Since 1967 Lambton College has worked cooperatively with the companies in the Sarnia-Lambton Hybrid Chemistry Cluster to create a region of innovators, working together to strengthen our local economy, and meet industry demand for skilled employees. Built on a foundation of distinctive programs, applied research, evolving teaching methodologies, and experiential learning opportunities, Lambton College ensures the Sarnia-Lambton region will meet the skills and training required for the future of the growing sustainable bio-based chemistry industry.

Research and Innovation

Lambton College's Research & Innovation department is a global leader for collaborative applied research, development, innovation, education, entrepreneurship and commercialization.

Participating in project collaborations with regional, provincial and national small and medium-sized enterprises across the bio-based chemistry industry.

Applied research at Lambton College has built a strong network of research partners and has grown to offer high quality labs, facilities and an exceptional research team that suit a multitude of research projects. Through collaboration, the applied research department works with partners to connect them with the appropriate resources, expertise and funding opportunities.

TOP 3 RANKED COLLEGE IN CANADA FOR APPLIED RESEARCH FOR 3 CONSECUTIVE YEARS

– Research Infosource Inc's annual list of Canada's Top 50 Research Colleges (2017, 2018, 2019)

Programs

Many of the technology and trades programs offered are three years in duration, with a co-op component which provides students with a combination of theory and application skills in current and emerging technologies.

Relevant programs offered by Lambton College include:

- Advanced Power Engineering Technology
- Advanced Project Management & Strategic Leadership
- Chemical Lab Technician
- Chemical Laboratory Analysis
- Chemical Production & Power Engineering Technology (CPET)
- Construction Project Management
- Electrical Power Distribution & Control Technician
- Environmental Management Practices
- Environmental Technician - Water & Wastewater Systems Operations
- Instrumentation & Control Engineering Technician & Apprenticeship
- Power Engineering Technician / Techniques / Technology (PETC)

Centre of Excellence in Energy and Bio-Industrial Technologies

The Centre focuses on two major streams: Education and Training, and Applied Research.

Students have the opportunity to collaborate with industry in state of the art practice laboratories that support learning and research in next-generation technologies.

FOLLOWING A \$14.2 MILLION UPGRADE of the 34,000 sq ft. facility, which included the addition of 7,000 sq ft. of training space, Lambton College's Centre of Excellence in Energy and Bio-Industrial Technologies opened in 2018.

TRANSPORTATION AND MARKET ACCESS

Sarnia-Lambton is uniquely located on major road, rail, water, air and pipeline corridors to ensure a smooth flow of inputs and end-products between the members of the value chain and your company's facility.

ROAD

Sarnia-Lambton is located within a one day drive to 65% of the US market, and major Ontario and Quebec markets.

Sarnia-Lambton is served by a superb network of highways that connects the region to the Great Lakes industrial corridor, the southern United States, and Mexico.

Highway 402 provides access to the Ontario 400-series highway system providing transportation throughout the province towards Quebec to the east and Manitoba, Saskatchewan, Alberta, and British Columbia to the west. Highway 402 connects directly to Highway 401, the busiest highway in Canada.

The twin-span Blue Water Bridge border crossing is a key link between Canada and the United States. Strategically placed on the major trade and transportation corridors linking Ontario Highway 402 to U.S. Interstates, I-69 and I-94. The bridge is Canada's second-busiest crossing for commercial traffic, with over 1.5 million trucks and \$42.2 billion in road trade annually.

Dedicated car and truck lanes are available for cross border transportation via the Free and Secure Trade (FAST) and NEXUS programs allowing for pre-approved low risk importers, carriers, and drivers, to be cleared into either country with greater speed and certainty, and at a reduced cost of compliance.

Research Centres



Lambton Water Centre



Lambton Manufacturing Innovation Centre



Bioindustrial Process Research Centre



Lambton Energy Research Centre



Information Technology and Communication Research Centre



Centre for Industrial Material Development



RAIL

The regional rail infrastructure is impressive with Canadian National (CN) and CSX Transportation operating mainlines Class I railroad service.

CN maintains five rail yards in the region including the Sarnia Rail Yard which is the largest flat switching yard in the Great Lakes District. CSX Transportation provides service to many facilities while offering shunting services via spur lines conveniently located throughout the industrial complex.

The St. Clair Tunnel operated by CN connects Sarnia-Lambton to Michigan allowing for the easy movement of goods to the US Midwest, US Gulf Coast, or eastern US ports. The tunnel carries more freight than any other US-Canada border rail crossing.

Rail cars can be transported from Sarnia to the Port of Montreal (east) or Port of Vancouver (west) for transloading to ocean freighter.

Companies such as VIP Rail, Procor Limited, ARI Fleet Services of Canada Inc, and OWS Rail Car provide railcar switching, transloading, storage, and cleaning services.



WATER

Located on the banks of the St. Clair River, one of the busiest inland waterways in the world, the hybrid chemical industry has direct access to several 700+ foot liquid loading docks for incoming or outgoing bulk shipments. Through the St. Lawrence Seaway System, ships can navigate from Sarnia-Lambton to the Atlantic Ocean, March through December.

Sarnia Harbour provides seasonal berthage, ship repair and maintenance, and a location for the movement of over-sized process modules in and out of the Sarnia-Lambton Hybrid Chemistry Cluster.



AIR

Sarnia is well serviced by several regional and international airports, capable of delivering goods and people to any location in the world.

INTERNATIONAL AIRPORTS

Detroit Metropolitan Wayne County Airport

Toronto Pearson International Airport

London International Airport

Flint Bishop International Airport

REGIONAL AIRPORTS

Sarnia Chris Hadfield Airport

Owned by the City of Sarnia and located on Highway 402. It offers air cargo and daily passenger service connections to Toronto Pearson International Airport. It is a designated port of entry with custom services provided.

PIPELINE

Given the concentration of chemical facilities in the region, Sarnia-Lambton is serviced by an extensive network of pipelines supplying substantial volumes of gas and liquid utilities and hydrocarbon raw materials including natural gas, crude oil, ethylene and natural gas liquids.

In an area of just over 1,000 square kilometers there is over 1,500 kilometres of buried pipeline servicing the Sarnia-Lambton Hybrid Chemistry Cluster.

INDUSTRIAL INFRASTRUCTURE AND UTILITIES

Sarnia-Lambton has the infrastructure, utilities, and industrial base to support all forms of industrial activity, including the capital-intensive manufacturing of newly developing clean, green, and sustainable bio-based technologies.

ENERGY

Any sized electricity demand can be accommodated by several sources of locally generated power, that are used by area industries and transported through Ontario's electrical transmission system to other parts of the province and the U.S.

NATURAL GAS - Five facilities – 2485 MW combined capacity

SOLAR - Three facilities – 120 MW combined capacity

WIND - Four facilities – 265 MW combined capacity

Savings of 35-40% of electricity cost can be realized on several Sarnia-Lambton brownfield site locations.

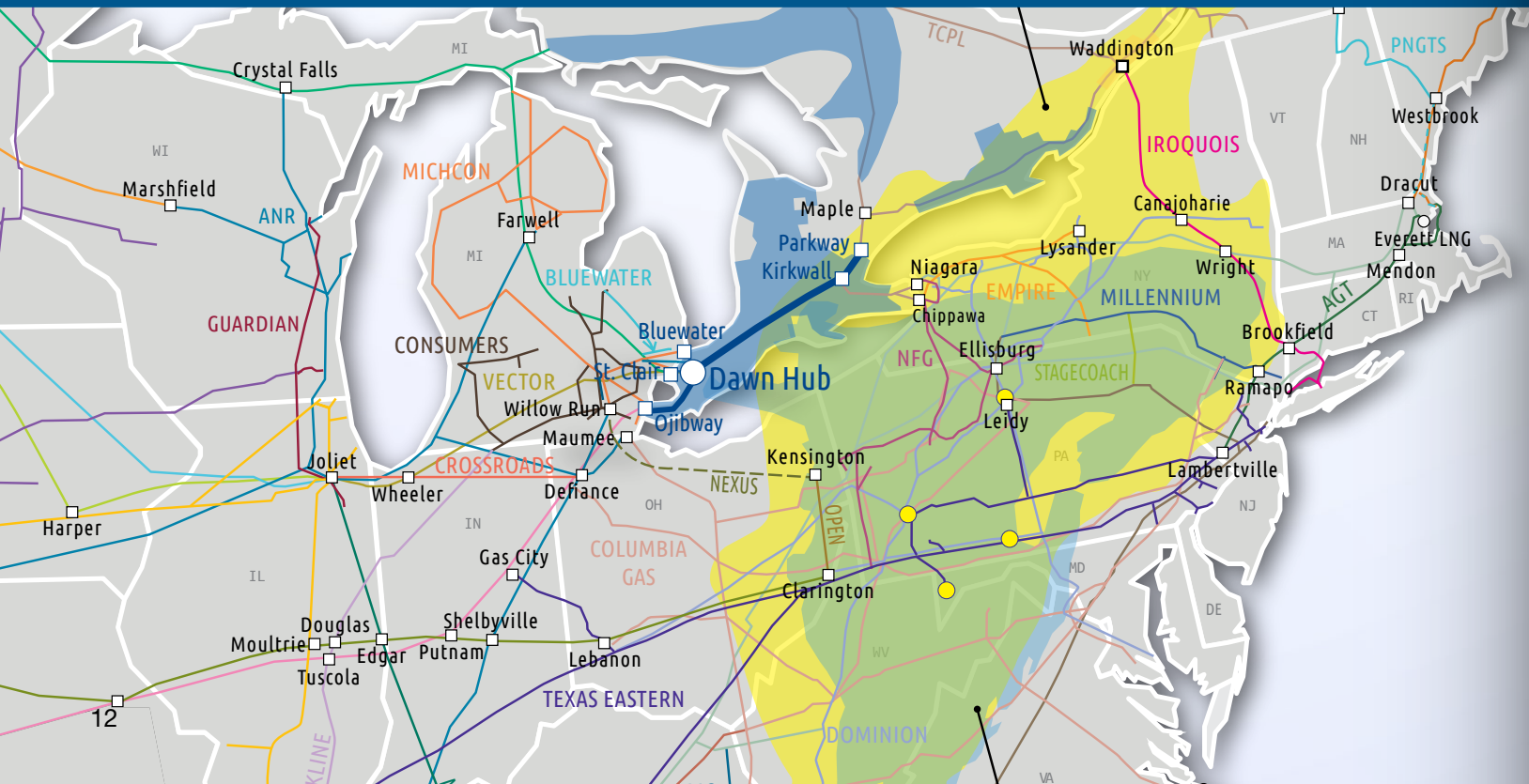
Significant savings can exist for users of electricity at the Bluewater Energy Park and Bio-Industrial Park Sarnia, through access to “behind-the-fence” pricing. This special pricing arrangement can be accomplished by connecting directly to the neighbouring 506 MW TransAlta Cogeneration Plant, and avoiding costs associated with Ontario Power Grid system charges known as the “global adjustment”.

NATURAL GAS

Enbridge Gas Inc. owns and operates the natural gas storage, transmission and distribution systems in Sarnia-Lambton. Their Dawn Hub is one of North America's largest liquid natural gas trading hubs. Strategically located in southwestern Ontario, providing direct access to North America's major supply basins, including abundant and affordable natural gas supplies in the Utica and Marcellus producing regions.

Companies operating in the Sarnia-Lambton Hybrid Chemistry Cluster can access some of the lowest cost natural gas feedstocks in North America due to the proximity and interconnections to the Enbridge Gas Inc. infrastructure network.

**Dawn storage has a working capacity of 274 Bcf. **



WATER, PROCESS WATER, WASTEWATER

The St. Clair River provides an abundant supply of cooling and process water for industrial users in the Sarnia-Lambton Hybrid Chemistry Cluster. Several brownfield and greenfield industrial opportunities exist on land that is serviced by existing cooling and process water infrastructure and capacity. For many of these industrial lands a Permit to Take Water (PTTW) is already in place.

Many residences and businesses in Sarnia-Lambton are provided with potable water via the Lambton Area Water Supply System (LAWSS) which has a maximum rated capacity of 182,000 m3/day.

Many current chemical facilities operate their own wastewater treatment facilities. To accommodate new development, there are opportunities for process wastewater to be treated at the ARLANXEO biological wastewater treatment plant. The facility is a Ministry of the Environment, Conservation and Parks approved industrial wastewater facility, with a capacity of 24,000 m3/day.

INFRASTRUCTURE PARTNERSHIP OPPORTUNITIES

Opportunities exist for new investments to partner with existing industrial facilities to exploit under-utilized infrastructure and share costs for developments on select brownfield sites. Infrastructure that may be available for use includes:

- Buildings (office, change facilities, maintenance, and shop space)
- Logistics (marine terminals, rail spurs, and truck and rail loading)
- Pipelines (natural gas, compressed air, nitrogen, hydrogen, and crude oil)
- Services (Medical, security, and snow removal)
- Utilities (electrical and steam distribution, process/cooling water, wastewater, and firewater systems)
- Other (flare system access)



WORKFORCE

With a population of 126,600, the Sarnia-Lambton area has a highly skilled workforce that specializes in the operation, building and maintenance of industrial bio-based facilities and process units. Over 21,700 people are employed in manufacturing and service industries and businesses in Lambton County. The total labour force within a 100 km radius of Sarnia-Lambton is almost 550,000.

Labour rates are competitive with the US Midwest and US Gulf Coast and other regions of a similar industrial clusters.

Together, companies within the Sarnia-Lambton Hybrid Chemistry cluster have formed the Industrial Educational Cooperative to provide industrial training support through relevant construction, operation, maintenance and safety programs. Furthermore, due to the high quality of work, education, and safety, facilities in the area experience low employee turnover and absenteeism rates.

Sarnia-Lambton offers a dependable and abundant supply of skilled labour. The region's skill pool is exceptionally strong in the areas of science, engineering, process operations, instrumentation, metal fabrication and managerial ability. This strength is emphasized by 62 percent of the labour force having obtained a postsecondary certificate, diploma, or degree.

LABOUR FORCE STATISTICS

64,500 - Labour Force
60,300 - Employment
58.1 - Participation Rate (%)
6.52 - Unemployment Rate (%)

EMPLOYMENT BY INDUSTRY

6,700 – Manufacturing
5,600 – Construction
3,100 – Professional, Scientific, & Technical
3,600 – Mining, Oil, Gas, & Agriculture
2,800 – Transportation & Warehousing

Utilization of existing and shared infrastructure can result in a capital cost savings of up to twenty percent.

INDUSTRIAL SUPPORT SERVICES



SARNIA-LAMBTON INDUSTRIAL ALLIANCE

Sarnia-Lambton has the industrial support services infrastructure to support the Hybrid Chemistry industry from site selection to operation. This is accommodated by the 1,200 industrial related companies in the sectors of manufacturing, construction, utilities and communications, industrial services and warehousing and transportation, and is highlighted by **Sarnia-Lambton Industrial Alliance (SLIA)**.

SLIA is a coalition of over 35 Sarnia-Lambton companies that specialize in all aspects of metal fabrication, engineering, environmental, and support services geared to manufacturing industries.

SLIA companies have the skills and manpower to take a concept from front end development through process design, engineering, environmental permitting, manufacturing of machinery and equipment modules, construction, installation, and plant commissioning.

Following plant commissioning, Sarnia-Lambton companies can also proficiently follow through with plant operation, environmental monitoring and compliance, maintenance, debottlenecking, and upgrading.



SARNIA-LAMBTON ENVIRONMENTAL ASSOCIATION

Formed in 1952, the **Sarnia-Lambton Environmental Association (SLEA)** and its 20 member companies are committed to earning recognition by its members, regulatory agencies and the community for excellence in promoting and fostering a healthy environment consistent with sustainable development. This commitment includes the monitoring of environmental conditions to assess the impact of its members on the local environment – specifically; air, water and soil. Guided by scientific data and practical experience, member companies encourage each other to reduce the environmental footprints of their plant sites, and to share information with government agencies and the Sarnia-Lambton community.

Additionally, SLEA administers the **Chemical Valley Emergency Co-ordinating Organization (CVECO)** for mutual aid and its community information and education arm, the **Community Awareness and Emergency Response Committee (CAER)**. CVECO and CAER are key examples of local industries commitment to the Responsible Care ® program administered by the Chemical Industry Association of Canada. Many initiatives in Responsible Care ® are modeled on activities which originated in Sarnia-Lambton.



SITE OPPORTUNITIES

Bluewater Energy Park

Fully serviced 268-acre site located on the bank of the St. Clair River in Sarnia. The park has 170-acres of brownfield land available for the development of new manufacturing and is able to provide electrical power from TransAlta's 506 MW Sarnia Regional Cogeneration Plant exempt from fees to upload to the public grid known as "behind-the-fence" energy pricing.



- 110,000 sq.ft. of office and laboratory space at the Bluewater River Centre.
- 760-foot liquid transfer river docking facility.
- 2 controlled access vehicular entrances.
- CSX rail line crosses site with 4 rail spur lines into site.
- Service water, fire water and city water lines throughout the site
- Steam available at 470,185, 45 psig.
- Natural gas, hydrogen, nitrogen and compressed air available at fence line
- 15kV electrical distribution throughout site.
- Behind-the-fence energy pricing with potential savings of 35-40% on energy costs.

Bio-Industrial Park Sarnia

Fully serviced 408-acre site with 42-acres of brownfield development opportunity. Operated by ARLANXEO Canada Inc. and located along the St. Clair River, the site offers new developments new development opportunities with potential savings of up to twenty percent on capital costs through shared infrastructure opportunities.

- Support services, including medical services, security services, and employee locker facilities can be supplied by the Park.
- Access to petrochemical pipeline chemicals and industrial gases
- Serviced by CN and CSX rail
- Steam and electrical power available from neighbouring TransAlta Sarnia Regional Cogeneration Plant with availability of "behind-the-fence" energy pricing.
- Other utilities including compressed instrument air, nitrogen, natural gas and hydrogen are readily available via pipeline.
- 720-foot marine terminal for ocean and lake freighter service
- Parcels ideal for pilot, demonstration, or full-scale manufacturing facilities.



Other Business and Industrial Parks

Sarnia-Lambton has several options throughout the community including municipally and privately-owned industrial parks. Fully serviced industrial land - with water, sanitary sewers, electrical and natural gas services - is available at competitive rates; with excellent access to major highways, rail lines, and marine shipping channels, as well as dependable industrial infrastructure.



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