COLLABORATIVE APPROACH TOWARDS GROWTH

An overview of the Canadian chemical industry – 'Hum Honge Kamyab' is a famous Hindi song that highlights the importance of succeeding together. Implementation of this mantra has brought success to the Canadian chemical industry. Read on to know more...

When we think of Canada, one of the few things that comes to our mind are scenic landscapes, beautiful beaches and the Niagara Falls. Upon visiting Canada, I realized that the country has much more to offer. The unique approach of the Canadian Government along with the industry towards growth of the chemical industry while maintaining ecological balance caught my attention. One example of this is BioAmber's plant at Sarnia. It is one of the largest bio-succinic acid manufacturing facilities in the world, with an annual capacity of 30,000 metric ton when the final ramp up is complete. It uses glucose derived from Ontario's agriculture as feedstock. The production process is based on the fermentation technology that makes use of proprietary yeast. Similarly, EcoSynthetix manufactures binders from bio-based materials that are used in the paper coatings industry. In this process, the company has replaced petroleum-based Styrene Butadiene.

Also, Club Coffee, a contract manufacturer of packaged coffee, has recently launched a unique packaging for coffee. With the help of Bioproducts Discovery and Development Centre (BDDC), University of Guelph, the company has made a breakthrough in the world's first 100 per cent compostable single-serve pod for coffee, tea and other hot beverages.

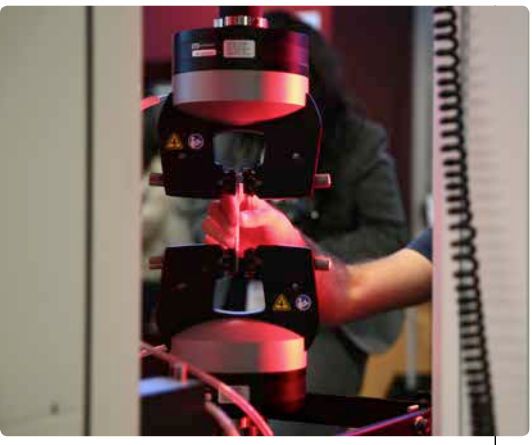


The chemical and petrochemical industry located on the banks of the St Clair river.

Source: Ministry of Economic Development and Infrastructure (MEDI), Ontario



Swati Deshpande
Associate Editor
Vogel Business Media India
swati.deshpande@vogel.de



Source: MEDI, Ontario

A lab that is equipped with advanced machinery provides fast and accurate results.

This pod is made of bio-based materials, including the coffee bean chaff that is acquired from the roasting process.

Industry–academia partnership

In addition to playing a significant role in developing the coffee pod, the BDDC has also developed various bio-products in-house including flower pots, storage bins, car parts, etc.

Interestingly, such industry–academia relation is not limited to the research field. The industry also plays an important role in designing the curriculum for educational programs. For instance, Lambton College has developed a spectrum of industry focused courses with the help of various chemical and petrochemical companies. During the program, the students go through on-job training that offers hands-on experience. This educational process ensures that students are industry ready at the end of their course.

A similar collaborative approach can be seen in industrial relations. Apart from having its own facility, The speciality chemicals company, Lanxess also owns and operates the Bio-Industrial Park Sarnia that offers brownfield and greenfield sites ranging from 2–89 acres for the construction of new plants. Most importantly, the park provides the ability to co-locate within an existing plant site and also utilize the existing infrastructure, including the industrial wastewater treatment

Highlight

- BDDC has developed various bio-products in-house including flower pots, storage bins, car parts, etc.

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Source: MEDI, Ontario

Foreign journalists during the chemical industry visit in Ontario, Canada.

facility, adjacent dock and rail services. The park is also supplied with an industrial steam and 'behind-the-fence' electricity by the neighboring TransAlta Cogeneration facility that provides synergies and lowers capex for its tenants. Likewise, TransAlta's Bluewater Energy Park also offers similar infrastructure facilities and sites for plants.

Highlight

- Ontario has an abundant supply of feedstock, water and land. This coupled with business initiatives by the government makes the province an attractive investment destination for Indian companies.

Lets go underground!

While we speak of chemical and petrochemical plants, the mention of oil and gas is a must. The biggest advantage for these plants in the Sarnia region is its close proximity to the Utica and Marcellus basins in the United States. That's not the only advantage. Union Gas's underground natural gas storage facility located at Dawn, near Sarnia, stores and transmits the natural gas as per the customers' requirements. The gas is transmitted through existing underground pipelines. This facility consists of 23 inter-connected storage pools that provide a working storage capacity of approximately 157 billion cubic feet.

Research & development

Another area of emphasis for the industries in Ontario is research and development. While taking a walk around the Western-Sarnia-Lambton Research Park campus, a joint initiative of the County of Lambton, the City of Sarnia, and Western University, I realized the importance of its infrastructure. The campus enables companies to rent labs and acts as a link between concepts and commercialization. Also, as multiple companies and colleges undertake research projects here, it helps them to create a platform to exchange ideas, which boosts the process of research and development.

The Western-Sarnia-Lambton Research Park is home to the Bowman Centre for Technology Commercialization, Canada's largest clean-tech incubator, focused on large scale industrial biotechnology.

Noteworthy alliances

Amongst other atributes, inter-dependence within the Canadian industry is something that we can learn from. GreenField Specialty Alcohols manufactures corn-based bulk industrial alcohol, packaged alcohol and fuel ethanol. The company sells co-products that are derived out of the alcohol production process, including dried distillers grains with solubles, wet distillers grains, corn oil and CO_2. The CO_2 is sold to an adjacent greenhouse that produces tomatoes. In other words, the company's process starts with agricultural produce and ends at the same juncture.

Additionally, the industry has a couple of alliances that help the community achieve excellence in all aspects. The Sarnia-Lambton Economic Partnership is one such association, which was formed to provide strategic leadership and support to community-based economic development in Sarnia and the Lambton County. The association follows the public-private partnership and offers numerous services such as site identification, facilitating develop-ment approvals, resolving technical and logistical issues, providing market information, etc. Further-more, it helps the industry in identifying appropriate govern-ment programs and assists them in taking advantage of the same.

Such alliances can also be seen in the health and safety segments. Injury Prevention through Partnership is formed with the aim to create an injury-free workplace in the County. It also offers services such as records management system and safety management assessment.

Conclusion

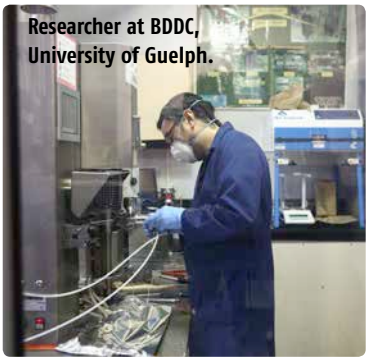
Along with the necessary partnerships and associations, Ontario has an abundant supply of feedstock, water and land. This coupled with business initiatives by the government makes the province an attractive investment destination for Indian companies.

GreenField Specialty Alcohols plant in Ontario.

Source: Vogel Business Media India



Source: MEDI, Ontario



Researcher at BDDC, University of Guelph.