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Green green grass of home

By Cathy Dobson www.theobserver.ca The Sarnia Observer

There's no better place in Canada than Sarnia to "get on the bandwagon" and develop green industrial products, says the director of the nation's first bioindustrial innovation centre.

"If we can get the first two or three companies going in this community, then people are going to start saying, 'There's something going on in Sarnia. We better have a look,'" Murray McLaughlin said.

He became director just one month ago and is spending most of his time outside the community, attending bioindustrial conferences and knocking on corporate doors, drumming up interest in a concept that most people are just beginning to understand.

McLaughlin is one of the country's foremost experts in biotechnology, having been involved in the field since the late 1980s when the movement was in its infancy.

"It's very difficult to pick up a paper today without reading about green technology," he said. The rush for greener manufacturing is all the more critical because petrochemicals are not renewable and supply will eventually dry up.

"We don't know when that will be -I think it will take a long time before we run out of oil," McLaughlin said. "But it will happen and we're just learning the science behind these new sources."

Researchers around the world are looking at sustainable feedstock such as switch grass, soybeans, algae and corn to create greener products than those made from petrochemicals.

Sarnia's new Bioindustrial Innovation Centre is designed to provide the facilities and expertise to move the manufacturing of green products out of the lab into commercial enterprise.

Don't just think of biofuels, although that is one focus, McLaughlin said. "Just about anything that is plastic or foam could also be manufactured from plant materials."

He believes Ontario is ideally located for the development of greener technologies that can be used in the auto industry.

Everything from the foam used in car seats to the polyester covering those seats could be made from plants, McLaughlin said.

"The key is getting the economics right."

He predicts that the evolution to green technology will include many hybrid products made from both petrochemicals and plants. That could entice Sarnia's large petrochemical plants to take an interest in green research and development, McLaughlin said.

The centre he's heading up was announced nearly two years ago when it received $20 million in provincial and federal funding.

Renovations and new construction have taken place over the past 18 months and the centre finally became operational this month.

The government money has been used in part to rebuild the lab space once occupied by Dow at the Modeland Road University of Western Ontario Research Park.

The new bioindustrial centre also occupies space once leased to Colt Engineering that's been converted for its use. Meanwhile, Colt has moved to a new, three-storey building that faces Modeland Road and was also built with a portion of the $20 million.

Final testing of the centre's new ventilation system is complete and six state-of-the-art labs are available to lease to companies in the final stages of R & D.

Behind the lab area, is 8,700- square-feet of bay space for those same companies to move into the pilot plant stage.

Offices, warehousing, a walk-in freezer and fridge, chemical storage and loading docks are also available to the centre's tenants. Two scientists are on staff to help iron out problems as the pilot projects start up.

"Once the technology is proven and the pilot is operating, then it's on to a full-scale facility somewhere else," McLaughlin said. "That could either be in Sarnia or somewhere else in Ontario.

"We want to keep our fair share here."

The centre's nurturing environment for new green technologies is a first in Canada but McLaughlin is aware of a handful of similar facilities in the U.S. that are seeing some success.

One company has already announced it will move its pilot plant into the Sarnia Bioindustrial Innovation Centre this fall.

Toronto-based Woodland Biofuels Inc. said in April it will build a $10-million cellulosic facility that produces ethanol from renewable wastes.

McLaughlin said Woodland received a $4 million incentive if it agreed to locate at the centre and is busy raising the rest of the capital.

"We've had 50 to 100 potential clients come to see us in the past two years and hopefully 10 or 20 are serious," he said. "Now that the labs and pilot space are available we'll follow up with them and bring some in as soon as possible."

Ideally, the centre will be fully occupied within a year with a waiting list of people wanting to prove their technology, McLaughlin said.

"From the mayor on down, we are the first Canadian community that's talking about the importance of green," he said.

"The opportunity is here."