

Score One for Clusters on 'The Island'



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IN SEPTEMBER, the New York Islanders and Florida Panthers played the first-ever NHL game on Prince Edward Island, an exhibition contest that the Islanders won 4-2. Some might say any plausible comparison between PEI and the big urban areas of the NHL ends with that match.

Not so fast. PEI is rapidly becoming a major player in another area that is elevating our game to big-league status: our bioscience technology cluster. To help develop the cluster, the PEI BioAlliance was established in 2005 by community leaders to make biosciences a new pillar of the PEI economy.

The Harvard Business School defines clusters as “geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in a particular field that are present in a nation or region.” There’s nothing in the definition about big cities per se, or even hockey teams.

Sure, Prince Edward Island seems far from the high-tech hubs of Boston and San Diego. But with a population a smidgen larger than Guelph, Ontario – which is part of the technology cluster that includes the acclaimed Research in Motion of blackberry fame – PEI is making great strides on its own scale.

Today, the PEI Bioscience Cluster employs 800 full and part-time people in 25 private companies and a dozen academic and research

organizations. Revenues now exceed \$63 million. Research and development has grown by more than 600% at the University of Prince Edward Island in five years and the number of bioscience companies has increased by 50% in just three years. We’re attracting bright minds in science and in business.

PEI has the capacity, the people, and the support to develop and export globally relevant science-based products. Our small size is an asset. It allows us to flexibly adapt to the challenges we face, and permits our society to respond as a single community to changes taking place regionally, nationally and around the world.

So what do you need for a successful cluster?

On the Island, our efforts are being driven by four key components. First, we have a shared economic vision. For PEI, the ‘status quo’ is not an option. Our leaders in government, research, and the private sector have recognized that new ‘legs’ must be built under the PEI economic platform. Second, we have strong leadership. The BioAlliance has brought together leaders from industry, government, and academic, research and financial communities to work together to ensure action, accountability, and results. Third, we have focus – the development and commercialization of bioactive compounds from marine and terrestrial sources, for human and animal health and nutrition. Finally, we have broad-based collaboration. Our road to success in the knowledge-based economy has demanded collaborative industry-research partnerships, and strong communication links among partners. All of the BioAlliance’s partners allocate their resources for maximum impact.

Our approach is working. In recent years, 25 business-research partnerships, supported by the Atlantic Canada Opportunities Agency’s Atlantic Innovation fund, have put over \$100 million worth of private and public sector investment into bioscience-based product development initiatives, with some

impressive results.

For example, BioVectra and its partners have developed PEGylation technology that can extend the half-life of protein drugs and improve their biological effectiveness. Novartis Animal Health, from their PEI base for global R&D and manufacturing of fish vaccines, registered the world’s first DNA vaccine to protect salmon raised in aquaculture systems. Boston-based Genzyme has made an important investment in PEI through an acquisition in the human health diagnostics manufacturing field.

Meanwhile, Neurodyn is producing products for early detection and treatment of neurological diseases. Nautilus Biosciences Canada is developing production methods and new drug leads derived from marine organisms. Other examples abound.

We’re just getting started. In April of 2008, the PEI government released an economic strategy that is designed, in part, to boost annual bioscience sales to \$300 million, increase full-time equivalent employment in the biosciences to 2,000, and ensure the province is recognized for its excellence in the development of bioactive-based health and nutrition products.

More work remains. PEI must, and will, continue to aggressively add key infrastructure and human resources to the cluster. Otherwise, we will not succeed in establishing a credible, competitive position in the Canadian and global, bioscience landscape. The economic opportunity will be lost, and we will be once again relegated to a technology ‘purchaser’ rather than a technology ‘provider.’ That scenario is unacceptable.

Historically, the PEI economy has relied heavily on agriculture, the fishery, tourism, and the service sector. But thanks to initiatives like our bioscience cluster, new opportunities grace our shores, and are helping modernize our communities. World class research and development, and sophisticated business transactions are becoming a permanent fixture on the economic landscape, becoming – as we say locally – an integral part of the ‘Island Way.’