The new college try

With co-operation, Atlantic Canadian universities could help drive economic growth

By the early 1990s, graduates and faculty of the Massachusetts Institute of Technology (MIT), the great Boston-area research university, had founded 4,000 companies that employed more than one million people around the globe. Total annual sales of MIT-related companies were $232 billion, putting the GDP of the MIT Nation roughly on par with that of South Africa.

I steal these notes from a BankBoston study called "MIT: The Impact of Innovation." While the report is in some ways dated, its lesson for our region isn't lost on Frank McKenna, whose resumé includes stints as Premier of New Brunswick and Canadian Ambassador to the United States. It was McKenna who referred me to the MIT success story, by way of suggesting that we should copy it in Atlantic Canada.

"Silicon Valley would never have happened without the commercialization of products coming out of Stanford and Berkeley," says McKenna. "The commercialization of research and collaboration between the academic community, the private sector, and government is absolutely critical. For some reason, Atlantic Canada, and Canada in general, has a reluctance about close collaboration between these sectors that the Americans do not share. Although we enjoy some modest successes in Atlantic Canada from our university community, I believe that much, much more can be done."

Amen to that.

At least the Atlantic Canadian universities can say, on their track record on the commercialization of research, that they are now giving it the old college try (or maybe, in this case, that should be the new college try). In February the Association of Atlantic Universities (AAU) issued a report called "The Economic Impact of University in the Atlantic Provinces." In a general way, the report told us what we should already know: the "economic output" of Atlantic universities is huge (about $4.4 billion a year), and university graduates earn a premium in the economy, about $450,000 more over a lifetime, a figure that rises to $750,000 for those who possess graduate degrees.

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When it comes to the commercialization of research, which should be a driving economic force and ruling passion inside the "academy," the region's 17 universities are just starting to put a bureaucracy in place. Fourteen institutions are working together in a program called Springboard to advance commercialization.

Still, the purpose of this column isn't to tell you that we're failing to commercialize research in Atlantica but instead to insist that we can get the job done. Dartmouth-based Ocean Nutrition Canada Ltd. has capitalized on intellectual property developed by university researchers, and Acadian Seaplants Ltd. has managed to turn the production of products from seaweed into a highly successful, export-based knowledge industry.

To find out how it can all work, I called Andy Osburn, the president and CEO of Diaphonics Inc. Six years ago, Osburn's company was launched by five founding partners. Together, these founders had the expertise and the chutzpah to imagine becoming what they now are: a leading global provider of IT-security solutions based on biometric voice verification.

Translation: The company develops and markets voice-verification software to such clients as U.S. financial institutions, prison systems, and law-enforcement agencies—any organization that needs to verify the identity of the guy at the other end of the phone line. This is expected to be a burgeoning industry over the next decade or so, particularly in the security-obsessed U.S., and Diaphonics is well-positioned to take advantage of this growth. It is now a 25-person company with headquarters in Halifax and a U.S. sales office in Boston. According to international consultants Frost & Sullivan, Diaphonics also is one of the world's top five companies in its field.

How did it all work? Osburn says that the company developed its technology in partnership with researchers at the University of New Brunswick's department of electrical and computer engineering—and he says that UNB has put the right people and system in place to commercialize research. "You need engineers or researchers who are well-suited to working with private industry," he says, "and you need academic institutions that are open to the development of intellectual property for commercialization." Osburn adds that university leaders have to understand how to fairly share rewards; usually, it is the private sector that takes the financial risks.

So there you have it: Research can be commercialized, with spectacular results, in the region. The challenge, as Frank McKenna states, is to get more people riding this progress train toward a smarter, richer future.

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