



InPartnership - Volume 3, Issue 2 - May 2012

The Natural Sciences and Engineering Research Council of Canada's (NSERC) *InPartnership* bi-monthly e-bulletin showcases the many ways Canadian business can connect and collaborate with researchers, and prosper as a result.

Latest News

Automotive Partnership Canada: Collaboration Across the Supply Chain

As it celebrates three years since its launch, NSERC's [Automotive Partnership Canada](#) has funded 19 projects worth over \$95 million, bringing over two dozen firms from across the industry, and even outside of it with non-traditional partners like IBM Canada, together to work on projects that produce results across the automotive value chain.

The latest six projects bring both large and small partners from across the sector together to address priorities identified by the industry.

"Having all the major research and industry players working together is a huge value to us and to Canada," says Stephen Campbell, Principal Scientist at [Automotive Fuel Cell Cooperation](#), whose project looks to develop lower cost fuel cells.

The new university-industry partnership will receive almost \$34 million to research lighter material alternatives for cars, and enhanced electric battery efficiency.

The depth of partnership has been aided by NSERC's "conciierge" approach: having automotive industry experts able to advise clients on how to turn early ideas into viable research partnerships.



University of New Brunswick Celebrates Milestone in University-Industry Partnerships

The [University of New Brunswick](#) (UNB) has launched over 40 NSERC [Engage Grant](#) partnerships, representing a NSERC investment of over \$1 million at the university for this type of grant alone. Close to 100 guests celebrated this milestone at a special lunch-time discussion on fostering research-corporate partnerships.

UNB President Eddy Campbell (joined by Janet Walden, NSERC's Vice-President of Research Partnerships Programs), and Greg Kealey, Provost and Vice-President (Research) recognized the UNB professors and their company partners participating in the grants, and noted the strong culture of research partnerships that has been created at the university, as well as the positive impact these academic-industry partnerships have on regional economic and social development.

New Industrial Research Chairs at Colleges Ready to Advise Business

As announced by the Minister of State for Science and Technology on May 8, 14 colleges now have new NSERC Industrial Research Chairs ready to work with business on projects of interest to industry. Announced in [Budget 2011](#), the [Industrial Research Chairs for Colleges \(IRCC\) Grants](#) support the establishment of applied research leaders to focus on delivering applied research solutions to local companies. These grants also help increase knowledge and technology transfer between colleges and companies, with the objective of increasing productivity and competitiveness, particularly among small and medium-sized enterprises.

The list of colleges receiving new chairs is available in the [backgrounder](#).

Successful Partnerships

Interested in partnering? Wondering about the return on investment? Learn how companies across Canada are working with researchers to advance their products or processes by participating in an NSERC partnership.

20-Year Research Partnership Still Going Strong

[Gord Kurtenbach](#) has been part of a 20-year research partnership with the University of Toronto (U of T)'s [Dynamic Graphics Project](#) (dgp), which he started with Autodesk Canada Inc. colleague Bill Buxton, and dgp researcher [Eugene Fiume](#). Not only has the collaboration been lengthy, it's been prolific. Researchers from the company and



U of T have co-authored hundreds of research papers and jointly developed numerous technologies that are now part of Autodesk's award-winning suite of 3D interactive graphics products. This year, the collaboration was one of the recipients of an NSERC [Synergy Award for Innovation](#), which celebrates success in academic-industry collaboration.

"Working with university faculty broadens our research investigations," says Dr. Kurtenbach, who is Director of Research at Autodesk, Inc. "They sometimes have different approaches to research problems that we wouldn't explore internally within the company because the topic is bit too far from our core business."

"In a company, there's a temptation to treat academic researchers like an extension of product development—that is, the academic researchers help build something," continues Dr. Kurtenbach. "Some of our best results have not been from industry proposing challenges to academics, but rather academics coming to companies with great research that they want to see have impact on the marketplace."

Many employees of Autodesk have become graduate students and, in some cases, professors at the U of T. At the same time, former students and professors have become employees of Autodesk. The company has employed over 100 U of T graduates.

"I really like to see academics having the freedom to be doing the stuff that companies won't do. After all, who else is going to do that?" says Dr. Kurtenbach.

Building a Better Snack

Researchers at [George Brown College](#), with funding from an NSERC [Innovation Enhancement Grant](#), are helping nutritionist MaryAnn Scandiffio, President of [Square Snacks Inc.](#), combine recipes with a concept to build a business. Scandiffio recruited George Brown College to scale-up recipes on an industrial scale, streamline production procedures and manufacturing processes, for her nutritional energy bars. "We had been basically doing R&D in the kitchen with a mixer and a rolling pin," she says.

Square Snacks are functional energy bars designed both to meet the nutritional needs of different life phases such as seniors (with easy-to-digest ingredients), or pregnant and nursing mothers; or to offer a [nutritious mid-day energy boost](#).

At only seven weeks, Square Snacks is already a thriving business with eight part-time employees, and close to \$10,000 in product sales. The project has helped train six college students and Scandiffio is now looking to grow her sales team.

"George Brown can help small businesses take an idea to invoice very quickly," says Dawn Davidson, George Brown College's Senior Project Manager, Research and Innovation. "Speed to market is a huge part of it. That's one of the things that allow a small business to survive and grow."



Fighting Flood Water

Imagine using water to hold back a flood. An NSERC [Engage Grant](#) is helping one company improve on flood tubes—a cost-effective and user-friendly tool for flood prevention. These water-filled tubes can be deployed more quickly than traditional methods and are reusable, reducing their environmental impact.

James Blatz, professor of civil engineering at the [University of Manitoba](#), and Don Adams, Director of Industrial Coated Fabrics at [ABC Canada Technology Group Ltd.](#) are making this technology better. In only four weeks, they secured an Engage Grant to examine the challenges of using the tubes—including puncture, seeping and tipping.

"You need it to be stable," Adams says. "You need it to work, and that's some of the confirmation that's coming back through this Engage Grant. One thing is to have an idea, it's quite another to confirm that it's a good idea."

This technology will help make deployment of flood prevention easier and faster. One [ABC WaterBloc](#) flood tube can replace an equivalent of 2,200 sandbags, and takes only 45 minutes to set up and fill.

Blatz and Adams are pleased with the results of the grant, having developed tubes that are more stable and effective than their predecessors. Adams is also excited about potential future collaborations. "It's interesting how you open the door, and then you realize, hey, there's six other doors here that we could be investigating."

Dr. Blatz encourages researchers to knock on those doors. "It's a question of stimulating researchers in academic institutions to get out there, find where those potential partners are and get busy being productive and building the economy."