Building partnerships between business and universities

Robert Laganière isn't a professional driver. But since September, this computer science professor's job description has included taking a car out for a spin.

"I'm having fun making lane changes," Laganière says with a chuckle from his office at the University of Ottawa.

Laganière is working on a project that could one day prevent car accidents. It could also become an important source of revenue for a local high-tech firm, CogniVue Corporation.

With video that Laganière's collects on his road trips, his team at U. of O.'s VIVA lab is working to improve a CogniVue algorithm. It allows a camera to detect the car's position and sound a warning when it moves into a neighbouring lane.

And that, hopefully, will lead to products that automakers are looking for.

"Driver awareness technology is our primary target market," says Tina Jeffrey, Product Marketing Engineer at the Gatineau, Quebec's CogniVue.

This is the first time that Laganière has joined forces with CogniVue, a company that develops Image Cognition Processors and software for use in devices that require real-time image and video analytics.

Their partnership is benefiting from a grant from the Natural Sciences and Engineering Research Council of Canada (NSERC).

Laganière is one of almost 240 academics who have so far benefitted from the NSERC program known as the Engage Grant. It's the flagship grant of the council's new Strategy for Partnerships and Innovation, a program focused on helping businesses collaborate with academics on R&D projects.

The $25,000 maximum grant is given to researchers to cover direct project costs associated with partnering with a company to solve a specific research and development problem. This short-term grant (no more than six-months) targets businesses with little or no experience teaming up with academics to address a company-specific problem. The company must be already engaged in R&D to qualify, but doesn't pay for any of the researchers' expenses.

Many small and medium-sized businesses are not aware of the Engage Grant or other NSERC opportunities that "can significantly extend their research resources," says Janet Walden, NSERC's Vice President of Research Partnerships.

"The goal is to realize more value for business from the federal government's investment in our university and college R&D capabilities by building stronger linkages between these sectors. These linkages benefit both the business and the post-secondary sectors—it's a win-win," Walden says.

Luc Martel, Director of New Technology Development at CogniVue, says the program is beneficial for both businesses and universities.

“This program allows CogniVue to develop intellectual property in partnership with some of the brightest minds in the field,” Martel said. “At the same time, it allows universities to see their work move past the research stage and into product development.”

NSERC hopes Engage Grants will spur longer-term collaboration, once the six-month duration of the grant is over. Laganière, for one, plans to continue his work with CogniVue, a client of BDC Financing, once his grant expires.

“It has been a good opportunity to get to know each other under the auspices of a first research project.”

Although any intellectual property developed during the grant period belongs to the business partner, Laganière’s agreement with CogniVue includes a provision for royalties should his research become commercialized.

Lane detection technology already exists in some on-board cameras but Laganière is working to make them more reliable, especially in challenging weather conditions like a Canadian winter.

To do that, he’s going to have to break out his driving gloves and take the car back on the road for further experiments in the months ahead.

“We can’t wait for the snow!”