Pre-Budget Consultation Brief in Preparation for the 2019–2020 Federal Budget

By R. Mathieu Vigneault, Managing Director

Réseau Trans-tech

mvigneault@reseautranstech.qc.ca

Recommendations:

- 1. That the government implement the Regional Innovation Acceleration Fund (RIAF) – Fonds d'accélération de l'innovation de proximité (FAIP);
- 2. That the government invest \$135 million in this fund over 5 years; and
- 3. That the government assign the delivery of this fund to regional development agencies such as Canada Economic Development for Quebec Regions (CED).

Introduction

The Canadian private sector comprises more than 1.1 million businesses, 99.9% of which are small or medium-sized enterprises (SMEs). Of that number, 75% have no more than four employees. Although dynamic, these small organizations have very little research and development (R&D) capacity, something that has become essential in the modern knowledge-based economy.

With a deep-rooted presence across the country, Canada's network of colleges is home to approximately one hundred applied research centres; their mission is to meet the needs of SMEs and other organizations, in particular by helping them to adopt new technologies or innovative management practices, and to conduct research that will facilitate the marketing and commercialization of their innovations.

However, the capacity of applied research centres to support Canadian entrepreneurs in their progress toward innovation is threatened by the fact that colleges and Cégeps are financially responsible for much of the cost of their research activities. At present, this situation is currently the last obstacle preventing Canada from having a world-class research capability.

Current situation

In order to fully understand the specifics of the college applied research business model, one must first grasp college applied research is entirely focused on and dedicated to the needs of the communities (SMEs, organizations, municipalities, etc.) it serves. Several types of interventions at various levels are necessary before and after research projects, e.g., to get a complete fix on the issues facing a SME. If necessary, substantial costs not covered by traditional financing methods are assumed by a centre to support an organization in the specific needs identification phase and in the development of a proposal that will culminate or not in a research project financed by a granting fund. The follow-up to a research project will follow a similar pattern, particularly when it comes to a firm's employees incorporating what has been learned into their activities or transmitting certain skills to the firm's clients.

This strategic role of providing support to Canadian innovators is echoed in more than 3,000 communities across the country. In Quebec, for example, it is assumed by the College Centres for Technology Transfer (CCTT), which are members of the Trans-tech network. Like similar centres in other provinces, CCTTs provide economies of scale by offering SMEs the capabilities of various teams of experts and researchers whose scientific knowledge and know-how is supported by a considerable amount (valued at more than \$100 million) of state-of-the-art equipment and infrastructure.

The value of CCTTs is reflected in their ability for to act on a massive scale: more than 4,500 clients and approximately \$90 million in annual project revenue. CCTTs conduct approximately 9,000 projects each year for enterprises and organizations, including 6,000 technical assistance projects, 2,000 applied research projects and more than 1,000 training and information activities.

According to the consulting firm KPMG,¹ CCTTs contribute to the development of businesses, notably by improving their profitability. This leads to the creation of more than 3,000 direct jobs and a value-added for the Quebec economy on the order of \$800 million. Taking into account the total jobs in these enterprises as well as the indirect employment generated by their activities, the activities of CCTTs are responsible for the creation and preservation of 10,000 jobs in Quebec.

The interest of SMEs in the types of activities offered by college applied research centres is reflected by the increase in the number of projects (a growth rate of nearly 18% over the last five years) and by the number of SMEs that have made repeated use of their research and development services over the years.

That being said, colleges must incur considerable costs each year in order to maintain worldclass facilities that will allow them to rapidly and adequately meet the needs of Canadian SMEs. The operation and maintenance of buildings and laboratories; the management and administration of projects; the recruitment, hiring and training of staff; and ongoing compliance with government and industrial standards and regulations – all of these are examples of the types of costs colleges must assume and for which there are no public programs or funds specifically adapted to the realities of college applied research.

Quebec's CCTTs must generally pay administrative costs or costs associated with the premises they occupy (either rented from Cégeps or in separate buildings), as well as costs billed to them for a college's services associated with their research activities. For example:

- (a) **Innofibre:** This CCTT affiliated with the Cégep de Trois-Rivières pays \$100,000 in annual rent for the premises in which it conducts its applied research activities, regardless of how much business it does; and
- (b) Merinov: This CCTT-TAC² affiliated with the Cégep de la Gaspésie et des Îles has an annual budget of \$5.86 million, but it must cover a number of different costs, including janitorial services, rent, laboratory maintenance, telecommunications, etc. Merinov's training, administration and management expenditures total \$2.7 million, or 47% of its expenditures associated with applied research activities.

Among other negative effects of this situation, many Quebec CCTTs have no choice but to slow the development of their research, technology transfer and support activities and provide reduced access to some of their equipment in order to reduce their maintenance, updating, licence renewal and other costs. This restriction considerably limits the number of SMEs and organizations that can receive support services.

Meanwhile, Canadian universities can rely on the Research Support Fund (RSF), which is specifically intended to meet their needs, to reduce their burden of expenditures associated with basic research.

¹ KPMG, La contribution économique des cégeps et des centres collégiaux de transfert de technologie, November 2014, p. 27-28, <u>www.fedecegeps.qc.ca/wp-content/uploads/2014/11/KPMG-SECOR_La-contribution-</u> <u>%C3% A9conomique-des-c%C3% A9geps-et-des-CCTT.pdf</u> [available in French only].

 $^{^{2}}$ TAC = Canadian Technology Access Centre.

Of course, the Natural Sciences and Engineering Research Council of Canada's (NSERC) College and Community Innovation (CCI) Program³ allows colleges and Cégeps to use as much as 20% of a grant to cover certain costs associated with a project for which the grant was awarded. The one flaw in this solution, however, is that it recognizes only the expenditures associated with an ongoing project and not the expenditures required to maintain the research capabilities of the institutions in the network. This has an impact on colleges' ability to maintain a real applied research capability in the medium to long term and consequently on the businesses and organizations that rely on their services.

We believe that there is no better time to invest, since SMEs more than ever before must upgrade and modernize their operations in order to position themselves upstream of market demands and carve out a niche for themselves in a competitive global economy.

That is why we recommend that the Canadian government establish the **Regional Innovation** Acceleration Fund (RIAF) – Fonds d'accélération pour l'innovation de proximité (FAIP).

Proposed solution

In practical terms, we recommend an investment of \$135 million over 5 years to start up the Regional Innovation Acceleration Fund (RIAF).

The RIAF would be a Canada-wide initiative to provide local funding. Its purpose and effect would be to increase Canada's overall innovation, entrepreneurship and collaboration capacities. Specifically, the RIAF would provide stable, predictable annual funding to all eligible colleges across Canada in order to make it possible for them to maintain and/or ensure the development of their applied research capabilities. In simple and transparent terms, the RIAF would help colleges to preserve their existing expertise, train research teams, develop their skills and expertise, and reach out to Canadian entrepreneurs and innovators. It would also provide financial support for colleges with mature research facilities and consequently rising applied research costs.

This Canada-wide initiative would enhance the competitiveness of the economy, by:

- generating inclusive innovation access opportunities for all entrepreneurs, in particular those operated by visible minorities;
- accelerating the creation of stable, well-paying jobs in all communities and for all Canadians;
- definitely increasing experiential learning opportunities for students, in particular Indigenous and immigrant students, in order to foster innovative talents throughout the country; and
- providing annual frontline data on innovation to policymakers in Ottawa.

The RIAF should provide funding for the following five types of expenditures:

³ The Canadian college community publicly applauded the unprecedented investments in college applied research made by the government in Budget 2018. These funds, earmarked for the College and Community Innovation (CCI) Program managed by NSERC and the Canada Foundation for Innovation's (CFI) College-Industry Innovation Fund (CIIF), will support specific applied research projects throughout Canada.

- research facilities;
- research resources;
- management and administration of an institution's research activities;
- regulatory requirements and accreditation standards; and
- intellectual property and knowledge mobilization.

Participation in the RIAF by colleges and Cégeps would be voluntary. The RIAF would be open to all NSERC, SSHRC (Social Sciences and Humanities Research Council) and CIHR (Canadian Institutes of Health research)-eligible colleges.

The amount of financial assistance would be calculated on the basis of the average of the amounts received over the last two years from competitive NSERC, SSHRC and CIHR programs exclusive to colleges. Hence, colleges receiving an average of more than \$375,000 over two years would receive a grant of 40% of that average amount from RIAF the following year. For example, a college with a two-year average of \$800,000 would receive \$320,000.

Conversely, colleges receiving an annual average of less than \$375,000 from these granting agencies would receive \$150,000 per year in funding to support applied research development in their region and allow them to establish a critical mass of research.