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# COLLEGE AND INSTITUTE APPLIED RESEARCH - ACCELERATING BUSINESS AND COMMUNITY INNOVATION ENVIRONMENTAL SCAN 2013-14



APRIL 2015



Colleges and Institutes Canada  
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**Colleges and Institutes Canada** is the national and international voice of Canada's publicly supported colleges, institutes and polytechnics. We work with industry and social sectors to train 1.5 million learners of all ages and backgrounds at campuses serving over 3,000 urban, rural and remote communities in Canada. The Association operates in 29 countries via 13 offices around the world.

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March - April 2015*

We would like to thank Julia for the creative design of this report cover.

**COLLEGE AND INSTITUTE APPLIED RESEARCH - ACCELERATING BUSINESS  
AND COMMUNITY INNOVATION / ENVIRONMENTAL SCAN 2013-14**

<b>EXECUTIVE SUMMARY</b>	<b>i</b>
<b>INTRODUCTION</b>	<b>1</b>
<b>1. COLLEGE CAPACITY</b>	<b>2</b>
1.1 Institutional Budget for Applied Research	2
1.2 Applied Research Structures	2
1.2.1 Intellectual Property	3
1.3 Building Applied Research Capacity	4
1.4 Promotion and Knowledge Transfer	4
1.5 Eligibility with Federal Granting Councils	5
1.6 Research Opportunities for College and Institute Faculty and Staff	6
1.6.1 Release Time	7
1.7 Student-Centred Applied Research	8
1.8 Student Entrepreneurship	8
1.8.1 The Integration of Entrepreneurship in Curriculum	10
1.8.2 Incubators	11
1.9 Research Specializations and Expertise	12
1.10 Research Centres and Laboratories	13
1.11 Research Networks	14
1.11.1 Provincial and Territorial College-Level Research Networks	14
1.11.2 Regional and Sector-Specific Networks	15
1.12 Performance Measurement of Applied Research	16
1.13 The Legacy Impact of Applied Research on Curriculum	17
1.13.1 Impact for Students	17
1.13.2 Impact on Curriculum	18
1.14 Benefits of Applied Research	19
1.14.1 Products	19
1.14.2 Processes	20
1.14.3 Services	21
1.14.4 The Impact of CCTTs in Quebec	21
<b>2. EXTERNAL FUNDING SOURCES</b>	<b>22</b>
2.1 Tri-Council College and Community Innovation Program	24
2.1.1 Impact of the CCI Program	25
2.2 Social Sciences and Humanities Research Council	26
2.3 Canada Foundation for Innovation	27
2.3.1 Impact of the Canada Foundation for Innovation	28
2.4 Regional Economic Development Agencies	28
2.4.1 Impact of Regional Economic Development Organizations	29
2.5 National Research Council of Canada – Industrial Research Assistance Program	29
2.5.1 Benefits of the Industrial Research Assistance Program	31
2.6 Indirect Costs Program	31
<b>3. PARTNERSHIPS</b>	<b>32</b>
3.1 Business and Industry Partnerships	32
3.2 Partnerships for Social Innovation Research	33
3.3 Partnerships with Other Post-Secondary Institutions	34
3.3.1 Collaborating with Other Colleges and Institutes	34
3.3.2 Collaborating with Universities	34
3.4 International Research Partnerships	35
<b>CONCLUSION</b>	<b>36</b>
<b>REFERENCES</b>	<b>37</b>

## **APPENDICES . . . . . 38**

1. Colleges and Institutes Canada 2013-2014 Applied Research Environmental Scan – List of Participating Institutions
2. Areas of Research Specialization by Category and Province or Territory
3. Research Centres and Specialized Laboratories by Category and Province/Territory
4. Research Networks Identified by Respondent Colleges
5. Partnerships with Universities by Province/Territory

## **LIST OF TABLES**

Table 1: Profile of R&D Personnel . . . . .	2
Table 2: Breakdown of Research Specializations (total 1,083). . . . .	12
Table 3: Breakdown of Centres and Research Laboratories (total 670) . . . . .	13
Table 4: External Funding Sources for Colleges and Institutes in Applied Research . . . . .	22
Table 5: Federal Funding for Applied Research in Colleges and Institutes. . . . .	23
Table 6: Tri-Council CCI Grants Program (2013-14) . . . . .	25
Table 7: Financial Support from the IRAP-NRCC for Colleges and Institutes in the 2013-14 Fiscal Year . . . . .	30
Table 8: Breakdown of Partnerships by Sector and Business Size . . . . .	32
Table 9: Breakdown for Research in Social Innovation . . . . .	33
Table 10: International Research Partnerships . . . . .	35

## **LIST OF FIGURES**

Figure 1: How Colleges and Institutes Facilitate the Participation of Teaching Staff in Applied Honours Projects . . . . .	6
Figure 2: How Colleges and Institutes Encourage Release Time Measures . . . . .	7
Figure 3: Products . . . . .	19
Figure 4: Processes . . . . .	20
Figure 5: Services . . . . .	21
Figure 6: Distribution of Business and Industry Partners by Size of Enterprises . . . . .	32
Figure 7: Breakdown of Research in Social Innovation by Organization Type . . . . .	33

# Executive Summary

Colleges and institutes contribute to the research and innovation cycle in Canada through applied research. More specifically, they directly contribute to applied research through enhanced research infrastructure, involvement of faculty and students, and the creation of partnerships with the business, industry and social innovation sectors. Colleges and institutes receive the majority of their funding from the Government of Canada.

For the 2013-14 fiscal period, \$85,124,512 were granted, up 19% from the previous year. At \$78,275,654, funding from the private sector rose 9% from 2012-13 levels, making it the second greatest source of external funding for applied research.



## Business and Industry Partnerships

- 5,633 companies partnered with colleges and institutes in 2013-14 (a 3% increase from 2012-13) mostly in business and industrial research.
- 95% of external funding was for business and industrial research.
- 77% of partnerships were with small- and medium-sized enterprises (SMEs) followed by 14% with large enterprises and 9% with micro-enterprises.



## Partnerships for Social Innovation Research

- Colleges and institutes reported 693 social innovation partners.
- Funding devoted to social innovation research accounts for 5% of external funding, a one-point increase over last year.
- Most social innovation partners are community-based organizations and public service agencies.

## Entrepreneurship

- Colleges and institutes provide targeted services to support students to pursue an entrepreneurial idea, including coaching, mentoring and linkages to business and industry partners.
- With increased focus on entrepreneurship, many colleges and institutes have launched business incubators to support start-up businesses.

## Student Involvement

- Colleges and institutes reported that 32,093 students participated in applied research, up by 9% from 2012-13.
- Colleges and institutes involved students in applied research through in-class projects, summer jobs, internships and the integration of research approaches into curricula.
- 87% of colleges and institutes supported student entrepreneurship and 7,639 students received support to pursue an entrepreneurial idea—a 52% increase over last year.



## Institutional Expertise

- 2,491 faculty and staff (e.g. industrial experts and technicians) engaged in applied research in 2013-14, up by 8% from 2012-13.
- 107 institutions had a dedicated applied research division.
- 670 specialized research centres and labs were identified, up by 37% from 2012-13.
- 1,083 areas of research specialization were reported in natural resources, energy, environment, health, information and communications technologies, manufacturing and social innovation.



## Intellectual Property

- 80% of colleges and institutes had a policy on intellectual property.
- Policies differed from one institution to the next, though in principle, the intellectual property remains with the industry partner.

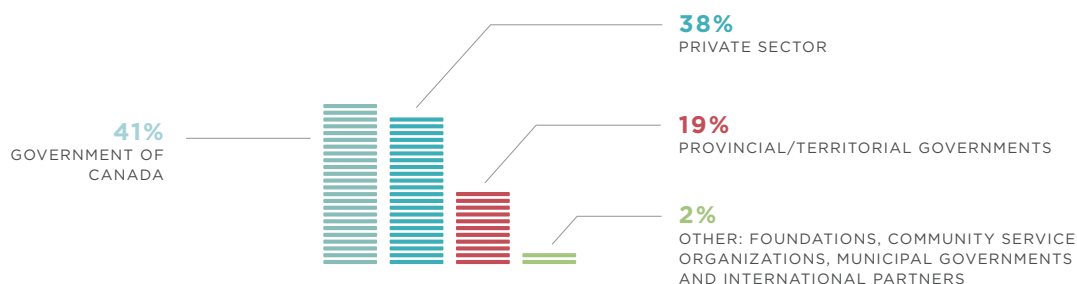
## Institutional Investment

- Colleges and institutes continued to allocate internal resources to support applied research with \$52 million reported for 2013-14, up by 6% from last year.

## External Funding 2013-2014

Colleges and institutes received \$207 million in external funding from the following sources, up 12% from 2012-13:

Government of Canada	\$85,124,512
Private Sector	\$78,275,654
Provincial/Territorial Governments	\$40,025,691
Foundations	\$2,100,513
Community Service Organizations	\$791,962
International Partners	\$865,869
Municipal Governments	\$181,555



- Funding from the Government of Canada was up 19% over the previous year.
- Funding from the private sector and provincial and territorial governments rose by 9% and 10%, respectively.
- The amount received from foundations is three times higher than that of the year before.
- Funding from community-based organizations was nearly double that of 2012-13.
- Funding from international partners and municipal governments dropped in comparison to the 2012-13 funding period.

The College and Community Innovation Program, which runs across the three granting councils, receives the largest part of the funding from the Government of Canada (55%), at \$46,427,328. Other sources of federal funding include:

- The Canada Foundation for Innovation's College-Industry Innovation Fund (\$12,920,602).
- The National Research Council Canada - Industrial Research Assistance Program (\$2,434,109).
- Regional economic development agencies, including Western Economic Diversification Canada, FedDev

Ontario, Canada Economic Development for Quebec Regions, Atlantic Canada Opportunities Agency and the Canadian Northern Economic Development Agency, for a total of \$17,376,144. Contributions from economic development agencies dropped by 21% in 2013-14.

#### FUNDING FROM REGIONAL ECONOMIC DEVELOPMENT AGENCIES

Western Economic Diversification Canada	\$8,036,555
Federal Economic Development Agency for Southern Ontario	\$3,243,065
Canada Economic Development for the Regions of Quebec	\$3,171,753
Atlantic Canada Opportunities Agency	\$1,220,537
Canadian Northern Economic Development Agency	\$361,234

#### University Partnerships

- 85% of respondents reported partnerships with universities.
- Institutions reported partnerships with 73 Canadian and 16 foreign universities, which represents a 44% increase from the previous year.
- Among the foreign universities, respondents identified partners in Israel, France, Uruguay, the United States, Brazil, the Netherlands, Ireland, Sweden and Australia.

#### International Research Partnerships

- Many colleges and institutes have created a variety of international partnerships.
- Member institutions from the Yukon, Alberta, Manitoba, Ontario, Quebec and Newfoundland have reported 48 international research partners in 22 countries, including Japan, the United States, France, South Korea, Germany, Belgium, the Netherlands, China, Argentina, Australia, Qatar, the United Kingdom, Brazil, the United Arab Emirates, Poland, Sweden, Greece, Ukraine, Suriname, India, Mexico and Switzerland.

Federal investment has greatly increased colleges' and institutes' capacity to conduct applied research and meet the needs of SMEs.

Current federal allocations for college applied research represent 2.8% of the \$2.96 billion of annual federal funding for research conducted by the higher education sector.

This is up by 0.4% from last year. Colleges and Institutes Canada's goal is to attract 5% of these investments.

This will enable colleges and institutes to further strengthen their applied research capacity and stimulate innovation among SMEs and community partners.

## SUMMARY OF INVESTMENTS

Investissement	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Federal Government	\$28,000,000	\$33,700,000	\$72,000,000	\$71,400,000	\$85,100,000
Private Sector	\$45,000,000	\$50,300,000	\$59,400,000	\$72,000,000	\$78,300,000
Colleges and Institutes	\$35,000,000	\$38,000,000	\$38,000,000	\$49,200,000	\$52,100,000
Provincial/Territorial Governments	\$29,000,000	\$29,700,000	\$44,000,000	\$36,345,000	\$40,000,000
Fondations	\$840,000	\$1,373,000	\$730,000	\$587,000	\$2,100,000
International Partners	-	\$295,000	\$1,533,000	\$3,500,000	\$865,000
Community Service Organizations	\$168,000	\$319,000	\$831,100	\$407,000	\$792,000
Municipal Governments	-	-	\$533,000	\$313,000	\$182,000
<b>Total investment*</b>	<b>\$138,008,000</b>	<b>\$153,687,000</b>	<b>\$217,027,100</b>	<b>\$233,752,000</b>	<b>\$259,439,000</b>

Partnerships with companies	3,795	4,444	4,586	5,444	5,633
Social innovation research partners	-	289	338	821	693
Research centres	196	305	387	489	670
Faculty engaged in research	1,196	1,606	1,774	2,298	2,491
Students engaged in research	8,329	13,585	24,108	29,356	32,093
Areas of specialization	304	447	524	654	1,083
Institutions eligible for NSERC funding	64	84	92	96	102
Institutions eligible for SSHRC funding	-	38	55	59	64
Institutions eligible for CIHR funding	-	-	1	3	3
Research Networks	137	137	171	232	306
Partnerships with Universities	-	-	-	62	89

\*Since numbers have been rounded up, sums may not correspond to totals.



# Introduction

Through strong industry and community partnerships, colleges and institutes grow the talent pool employers need and support business and community innovation through applied research. The contribution of Canadian colleges and institutes to this cycle of innovation and research is crucial to our knowledge-based economy. Given their mandate to support local social and economic development, these institutions are an ideal source of innovation assistance for small and medium enterprises (SMEs) and community partners.

In December 2014, the Government of Canada launched an updated strategy: *Seizing Canada's Moment: Moving Forward in Science, Technology and Innovation 2014* which builds upon the foundation in the 2007 framework to ensure that Canada remains well-positioned in the global arena for research excellence, talent, and wealth. The renewed strategy will leverage the expertise and resources of postsecondary institutions, industry, and government to translate brilliant theories and ideas into applications that will improve the day-to-day lives of Canadians and generate economic growth and jobs across the country.<sup>1</sup>

The environmental scans Colleges and Institutes Canada has carried out since 2005-06 confirm consistent growth in college and institute capacity to conduct quality applied research, in partnership with industry and community

partners. Colleges and institutes are on the front lines of helping businesses develop new products, improve existing products and processes, and bring them to market.



This report captures the level of college and institute applied research activity for 2013-14. The responses of 119 (see Annex 1) institutions to the *Survey of 2013-14 College and Institute Applied Research Activity* confirm that colleges and institutes continue to mobilize institutional resources, faculty, and students, and expand partnerships with industry and community partners and government.

<sup>1</sup> [https://www.ic.gc.ca/eic/site/icgc.nsf/fra/h\\_07490.html](https://www.ic.gc.ca/eic/site/icgc.nsf/fra/h_07490.html)

# 1. College and Institute Capacity

Survey results confirm there is growing institutional commitment to applied research, evidenced through institutional financial commitments, the establishment of research structures, opportunities for faculty and students, areas of research expertise, research facilities,

involvement in research networks, the use of performance measurement tools, and their impact on curricula and program delivery.



## 1.1 Institutional Budgets for Applied Research

Applied research is an essential part of educational programming at colleges and institutes and, many dedicate part of their core budget to funding applied research projects. For 2013-14, 112 colleges and institutes

(94% of respondents) reported a total of \$52,120,022 in institutional budgets for applied research development offices and innovative projects, up by 6% from 2012-13.

## 1.2 Applied Research Structures

Seventy-nine per cent of institutions are subject to provincial law that recognizes applied research, while 85% confirm that applied research is part of their college's mission statement. In all, 90% of respondents have a research and development (R&D) department dedicated

to applied research. In 2013-14, applied research and development offices reported over 1,613 full- and part-time staff, up by 21% from last year. Survey results show an increase in the number of scientific/technical staff.

TABLE 1  
PROFILE OF R&D PERSONNEL

	Number of Full-Time Staff	Number of Part-Time Staff
Management/Administration	372	54
Technical and Scientific	791	49
<b>Total</b>	<b>1,163</b>	<b>103</b>

## 1.2.1 Intellectual Property

Colleges and institutes that carry out applied research must consider the institutional policies regulating ethics, governance, integrity and conflicts of interest.

Among respondents, 80% uphold a policy regulating intellectual property within their institution.

Our Survey of Applied Research Activity confirms that intellectual property rights are clearly defined in various institutional policies. The enforcement of these rights extends to “collaborative projects with corporate partners ... the instructional objectives of the college, and the rights—academic, remunerative, and otherwise—of faculty researchers.”<sup>2</sup> In principle, the intellectual property remains with the industry partner.

Policies on intellectual property differ from one institution to the next. In some circumstances, after consulting business partners, colleges retain the rights to use intellectual property as part of research projects. In research involving a third party, different agreements can be negotiated that take each party’s contribution into consideration. In other cases, the agreement allows the college or institute to incorporate new knowledge or technologies into their learning methods. Students having participated in a project have the right to list this accomplishment on their résumé.

Generally, when applied research involves a third party, there is an array of options regarding intellectual property. Colleges and institutes can:

- Retain all intellectual property rights throughout the project.
- Transfer intellectual property rights to the partner.
- Retain intellectual property rights only for projects led by professors.
- Retain intellectual property rights only for projects led by students.

Colleges and Institutes Canada’s online Intellectual Property Toolkit helps colleges identify and manage intellectual property issues that may come up in applied research projects with industry or community partners. With support from the Natural Sciences and Engineering Research Council (NSERC), the Toolkit was designed based on data provided by colleges and institutes who receive grant funding through the Tri-Council College and Community Innovation (CCI) Program. For more information, please visit: <http://www.collegesinstitutes.ca/the-issues/applied-research/ip-toolkit/welcome-to-the-college-and-institute-intellectual-property-toolkit-project/>



<sup>2</sup> Fisher, Roger. (2010). Cadre conceptuel pour la recherche dans les collèges canadiens (vol.24, numéro 1), p.29.

### 1.3 Building Applied Research Capacity

Colleges and institutes take an institutional approach to applied research, and as such require the mobilization of various human, material and technological resources to offer client-centred services to commercial, industrial and community partners.

To this end, colleges and institutes continue to increase their research capacity by offering training activities to their faculty, non-teaching staff and students. In all, 85% of respondents offer training activities.

These activities include workshops, presentations, lectures, symposia, mentoring, one-on-one guidance to fill out grant requests, and funding to take part in conferences and

symposia. Training sessions intended to increase research capacity were offered, and touched more specifically on ethics, intellectual property and the preparation of grant requests. Some of the topics addressed included:

- Project management
- Development of a work plan and research project
- Analysis of qualitative and quantitative data
- Health and safety
- Technical report writing, team building
- Dissemination of research results
- Methodology
- Networking

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### 1.4 Promotion and Knowledge Transfer

Knowledge transfer is a process by which information gained through research is transferred from the researcher to his or her audience. In 2013-14, 87% of respondents indicated they conducted promotional activities and marketing, and 84% mentioned knowledge transfer activities.

Knowledge can be transferred in many different ways, including seminars, conferences, symposia, presentations and publications. This provides opportunities for the creation of new partnerships with key stakeholders, particularly business and industry, but also community organizations, colleges, institutes and universities. Presentations can address a very wide audience: college- and university-level students, recent graduates, professionals, the private sector and international partners. Almost all respondents participated in Colleges and Institutes Canada's annual symposium on applied research. This event offers participants a platform to network, discuss challenges and share best practices with the goal of increasing the number of applied research activities within their institutions.

Some colleges and institutes have developed in-house methods for disseminating research results. More and more institutions hold special theme days on applied research where students display their projects or submit their work to science competitions. A growing number of colleges and institutes transfer knowledge and showcase various projects and initiatives carried out within their institutions, whether through their own publications, or through, the publication of articles in scientific journals or specialized magazines.

Faculty have a key role in promoting applied research. Active participation by teaching staff fosters the integration of research into programs of study and improves the learning experience.

In 2013-14, many institutions indicated that they use social media, such as Twitter and specialized blogs, to promote applied research. Some use digital technology to offer webinars to partners from the private sector and newsletters to share developments in applied research. An ever-growing number of institutions participate in research consortiums where they have direct contact with partners from various industries.

To stimulate general interest in applied research, some institutions are organizing symposia, producing press releases, developing promotional materials and regularly updating their websites. Radio, television, print and other media also play a key role in promoting and marketing applied research.

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### 1.5 Eligibility with Federal Granting Councils

The Natural Sciences and Engineering Research Council of Canada (NSERC) is one of the main funding sources for applied research activities in Canadian colleges and institutes. As a result of major financial commitment in the last years through a dedicated envelope for college and institute applied research, the number of institutions eligible for NSERC funding has increased from only 13 in 2005-06 to 102 in 2013-14.

Sixty-four colleges and institutes are eligible for grants from the Social Sciences and Humanities Research Council (SSHRC), as compared to 59 last year. Three colleges are eligible for grants from the Canadian Institutes of Health Research (CIHR).

## 1.6 Research Opportunities For College and Institute Faculty and Staff

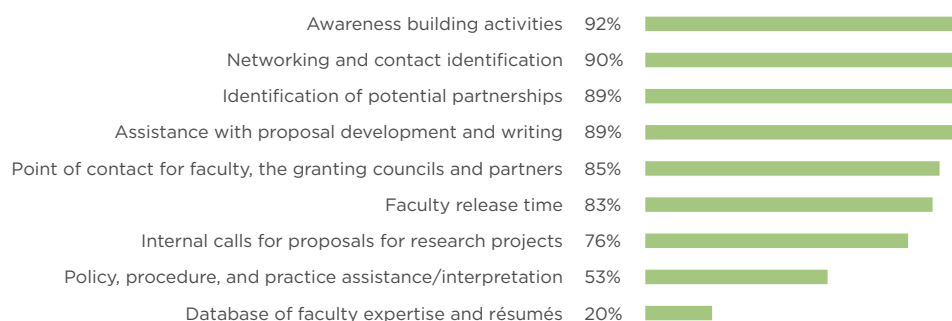
In 2013-14, 2,491 faculty and non-teaching staff members took part in applied research activities. This is a rise of 8% from last year. The majority of employees (65%) work part time and have an impressive range of credentials: 17% hold a college-level degree, 29% have a bachelor's; 32% hold a master's, and 23% have completed a doctorate degree.

The participation of professors and non-teaching staff is key to the success of applied research projects. The vast majority of institutions responded that their applied research office provided support for developing research projects, drafting grant requests, organizing promotional activities, seeking out contacts and setting up networks.

An increased number of colleges and institutes are allocating resources to offer faculty release time, which enables teachers and professionals to conduct collaborative research and participate in projects as co-researchers, partners or associate scientists. Institutional participation in research consortiums is also on the rise. In some cases, teaching staff can participate through internal proposal calls, writing workshops or consulting.

FIGURE 1

### HOW COLLEGES AND INSTITUTES FACILITATE THE PARTICIPATION OF TEACHING STAFF IN APPLIED RESEARCH PROJECTS



### 1.6.1 Faculty Release Time

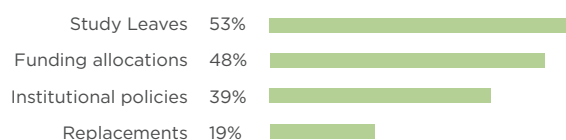
Applied research is a valuable source of ongoing professional development for teachers and a pathway to developing innovative teaching materials. Faculty release time allows a professor to devote more time to research activities, contributing to the success of applied research at the institution. In 2013-14, 83% of institutions offered their faculty release time for research.

Figure 2 lists some ways in which colleges and institutes encourage the use of release time. Among respondents offering release time, 48% reported using funding support. In addition, 53% offered study leaves while 39% had institutional policies in place. In some cases, colleges and institutes replace their professor-researchers with part-time teachers (19%).

Funding support (48%) allows researchers to take time off from their teaching responsibilities. Some institutions have professional development funds available for professor-researchers, who can use these monies to cover their replacement costs. In other cases, an external grant, such as from the Tri-Council College and Community Innovation (CCI) Program, allows release time as an eligible expense.<sup>4</sup>

Some colleges and institutes report that faculty members may obtain study leaves. In some cases, institutions reorganize professor-researchers' schedules to relieve them of their teaching duties.

**FIGURE 2**  
**HOW COLLEGES AND INSTITUTES ENCOURAGE RELEASE TIME MEASURES**



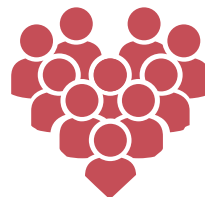
<sup>4</sup> NSERC's CCI Program is the only funding program that recognizes faculty release time as an eligible expense and provides up to \$7,000 per faculty release (to hire a replacement teacher) to allow a faculty to participate in CCI projects.

## 1.7 Students at the Centre of Applied Research

In 2013-14, 32,093 students participated in applied research activities, up by 9%. A majority of the students who participated in applied research activities (91%) were not paid to do so, and only 2,778 students (9%) were paid as part of a part-time job, summer job or internship.

As Roger Fisher reported in his report entitled *A Conceptual Framework for Research at Canadian Colleges*,<sup>5</sup> student participation increases hands-on learning while allowing them to acquire both interpersonal experience and training. The students who participated in research activities are better prepared to contribute to the economic and social development of their communities.<sup>6</sup> Internships in an industry setting, summer or part-time jobs, or work

as research assistants offer students valuable experience and put them directly into contact with potential employers.



Many institutions favour student participation through competitions, which highlight student projects. Many colleges and institutes also offer students applied research experience through class projects. Results also show that many institutions are requiring the completion of an applied research project at the end of their programs.

## 1.8 Student Entrepreneurship

Entrepreneurship is key in stimulating innovation, productivity, job creation and economic growth. In general, countries with a high level of entrepreneurial activity have better economic performance. In 2013-14, 90% of institutions supported student entrepreneurship and 7,639 students received funding support to start a business, up by 52% from the previous year. Increasingly, institutions are incorporating courses on entrepreneurship into their curricula to prepare new graduates for this path.

Many colleges and institutes create opportunities for students to discover entrepreneurship through interactions with entrepreneurs willing to share their business experience.

In a country as economically diverse as Canada, where unemployment rates vary by region, young entrepreneurs are a major driving force in the creation of local jobs.

<sup>5</sup>A Conceptual Framework for Research at Canadian Colleges; Cadre conceptuel pour la recherche dans les collèges canadiens.

<sup>6</sup>Ibid, p.28.



## Examples of Entrepreneurship Centres and Incubators at Colleges and Institutes

### ALBERTA

**Medicine Hat College's** Entrepreneur Development Centre provides students seed money to develop and implement business ideas, and receive business coaching and mentorship.

**The Northern Alberta Institute of Technology's**

Duncan McNeill Centre for Innovation (DMCI) provides business incubation and development services to help entrepreneurial start-ups become high-growth companies.

### ONTARIO

**Centennial College's** Centre of Entrepreneurship helps teach, coach and inspire aspiring entrepreneurs. The Centre provides the tools and experience needed to turn ideas into reality with hands-on training taught by seasoned business experts, and supports a student business incubator competition.

The Centre d'orientation et d'entrepreneuriat at **Collège Boréal** supports the integration of new immigrants and assists them to develop business start-up plans.

**George Brown College's** Institute of Entrepreneurship and Community Innovation (IECI) helps young entrepreneurs start small businesses through the Creating Entrepreneurial Opportunities Program and provides consulting services to local not-for-profit organizations and small- to-medium-sized businesses through IGNITE consulting services.

**Georgian College's** Centre for Social Entrepreneurship promotes innovative and transformative social change processes. Students and graduates learn how to develop new social enterprises and use their newly developed skills within community organizations. Additionally, the Centre teaches skills that will help to increase opportunities for self-employment and to create new businesses within the region.

### QUEBEC

**Dawson College's** Centre for Innovation and Entrepreneurship Education serves as a portal and central hub for entrepreneurship education, promotion, advancement, support and resources. The Centre drives entrepreneurial initiatives, economic growth and productivity in the artistic and cultural sectors in Montreal with emphasis on economic, social and environmental responsibility, and sustainability.

**Cégep Garneau** offers an entrepreneurship stream for students registered in business administration and who want to start their own business. The *Garneau Travail* business training centre is also available to students from all departments who wish to explore entrepreneurship, and develop administrative and managerial skills through hands-on experience.

**Cégep de Jonquière** operates Tango, a business training centre for students in their business management program. Students can learn the realities of local businesses, build a network of contacts and put their business skills to work. This school-based business resource offers sound training in entrepreneurship.

### 1.8.1 The Integration of Entrepreneurship in Curriculum

The integration of entrepreneurship in curriculum at colleges and institutes contribute to the development of innovation across Canada. In 2013-14, more than 558 courses or programs that integrate entrepreneurship into curricula were offered in colleges and institutes. Students acquired the skills to write business plans, start a business and manage projects.

In Quebec, **Cégep de Sherbrooke** offers a program in agricultural business management and technologies with a wide range of courses to develop students' entrepreneurship skills. For example, courses such as *Planning Business Development* and *Micro-Businesses and the Business Plan* are incorporated into the curriculum. Accounting and management students can also take a class on starting a business and the overall economic context.

The Youth Secretariat of the Government of Quebec has also developed a pedagogical guide, entitled *Entrepreneurial Spirit in College – Getting down to business*, which aims to support college faculty in building entrepreneurial skills across programs. The guide is offered in both official languages at <https://www.jeunes.gouv.qc.ca/documentation/outils/brochures-guides/entreprendre-collegiale.asp>

In the Atlantic region, **Nova Scotia Community College** teaches the underpinnings of entrepreneurship through its business administration, cosmetics, graphic design and music programs to prepare students to develop innovative projects.

In Alberta's **Olds College**, all students who intend to graduate with a certificate, a diploma or applied degree will complete Spirit of Entrepreneurship – a gamified entrepreneurship iPad app – as a graduation requirement. The app starts out simply: students buy and sell lemonade stand inventory to the citizens of The Blands. Mini-games

and awards encourage students to move through 12 modules of comprehensive content. As they progress through the content, more activities are unlocked in the game. As students become more skilled, they are able to run their stands more effectively and, hopefully, more profitably. Students are required to assess their business environment, make financial decisions, and apply marketing strategies within the game itself. They are also able to review slide notes and interact with each other, in real-time, right from the app.



In Manitoba, **University College of the North** offers two interesting classes, *Entrepreneurial Development* and *New Ventures Analysis*. These courses focus on shaping students' abilities to think about creating their own business, to evaluate situations from a strategic perspective, and to reach strategic decisions. Accomplishing these objectives entails introducing students to how an enterprise must deal with all complexities and constraints of the environment in which it operates, why none of these can be assumed away or ignored, and how situation factors impact strategic decisions.

## 1.8.2 Incubators

Creating a business is an invaluable source of wealth that directly contributes to the economic growth of an industry, region and country. However, from initial idea to business development, it is an arduous process that often fails. A true sign of the momentum entrepreneurship is gaining, many colleges and institutes now offer assistance in the form of business incubators. The basic premise is to support the entrepreneurs, rather than the businesses. If their business plans do not pan out, entrepreneurs can participate in other incubator projects.

In Alberta, **SAIT** Polytechnic's Idea Incubator is inventing new ways to design collaborative instruction for students that reflects workplace teamwork. The IDEA Room (Instructional Development and Enhancement) is a revolutionary new concept to promote brainstorming, organization and the capture of ideas. It combines new educational technology and novel teaching methods with brain power and collaboration to generate new initiatives and inspire action and innovative thinking.

In Ontario, the incubator at **Durham College** is a collaborative effort with the University of Ontario Institute of Technology and the Durham Strategic Energy Alliance/Spark Centre to support entrepreneurial activities. It was envisioned as a suite of resources for inventors and entrepreneurs, helping them bring their ideas from concept to successful commercialization while engaging students and faculty in research. Value-added services for clients, students and faculty will be provided in the future such as workshops that help inventors and entrepreneurs more rapidly define their ideas and value proposition. As well, an expanded relationship with the Business Advisory Centre Durham was developed.

**Conestoga College's** Accelerator Centre (AC) provides an essential combination of in-house mentorship, educational programming, facilities, networking, and access to funding and facility services, with a goal of building successful companies. The AC helps entrepreneurs move from start-up to scale-up, accelerate their time to market, and help them attract customers, investment and revenue.

**Cégep Garneau** will soon open a business incubator to support start-ups by providing mentoring and technical services to young entrepreneurs. Businesses can use the Espace Entreprendre space for up to 12 months.

The Marconi Campus at **Nova Scotia Community College** offers a range of programs and a friendly learning atmosphere. The campus business centre serves as an incubator for small businesses and provides opportunities for students to work part-time in their field of study, and build their portfolio. It also provides the resources to help them develop their own small business ideas.

**Holland College** partnered with the Government of Prince Edward Island to offer a business incubator program for students interested in starting their own business. The LaunchPad space at Holland College provides a professional setting for start-up companies and includes office furniture and access to communications technologies.

The **Humber College** ITAL HumberLaunch incubator provides Humber students and alumni with the environment and resources to cultivate innovative ideas into successful business ventures. This is achieved by offering Humber entrepreneurs funding, mentorship, coaching, resources, business development, one-on-one assistance and meeting facilities.

## 1.9 Research Specializations and Expertise

Colleges and institutes identified a growing number of fields of specialization in research. With the 2013-14 results, 1,083 areas of research have been identified, compared to 654 for the year before—an increase of 66%.







Table 2 displays in six categories the fields of specialization from the ten provinces and three territories:




- Natural Resources and Energy
- Environmental Science and Technologies
- Health Medical and Life Sciences
- Information & Communication Technologies
- Manufacturing and Building Technology
- Social Innovation

The top three categories are highlighted in different colours. The fields of research are mainly aligned with the socioeconomic needs met by the colleges and institutes. The list of all areas of specialization is provided in Annex 2.

Institutions in Ontario stand apart in five of the six categories, especially in manufacturing and building technologies, and health, medical and life sciences. Alberta had high areas of concentration in social innovation, natural resources and energy and the environment. Social innovation, health and the environment are the main areas of activity in British Columbia. Quebec stands out with its high number of specializations in manufacturing and building technologies, environment and natural resources.

**TABLE 2**  
**BREAKDOWN OF RESEARCH SPECIALIZATIONS - TOTAL 1,083**

	 Natural Resources and Energy		 Environmental Science and Technologies		 Health Medical and Life Sciences		 Information & Communication Technologies		 Manufacturing and Building Technology		 Social Innovation	
	#	%	#	%	#	%	#	%	#	%	#	%
Newfoundland and Labrador	7	3%	7	4%	2	1%	3	2%	5	3%	2	1%
Prince Edward Island	4	2%	2	1%	3	2%	1	1%	3	2%	4	2%
Nova Scotia	9	4%	12	7%	2	1%	3	2%	9	5%	0	0%
New Brunswick	10	4%	2	1%	4	2%	4	3%	7	4%	6	3%
Quebec	28	13%	26	15%	6	4%	19	14%	26	15%	47	22%
Ontario	60	27%	39	23%	62	38%	61	45%	72	41%	46	21%
Manitoba	12	5%	7	4%	4	2%	4	3%	2	1%	14	7%
Saskatchewan	6	3%	3	2%	5	3%	1	1%	1	1%	3	1%
Alberta	48	22%	32	18%	28	17%	18	13%	24	14%	34	16%
British Columbia	29	13%	32	18%	43	26%	18	13%	22	13%	54	25%
North West Territories	3	1%	6	3%	2	1%	1	1%	1	1%	0	0%
Nunavut	2	1%	1	1%	1	1%	1	1%		0%	1	0%
Yukon	5	2%	4	2%	1	1%	1	1%	3	2%	3	1%
<b>Total</b>	<b>223</b>	<b>100%</b>	<b>173</b>	<b>100%</b>	<b>163</b>	<b>100%</b>	<b>135</b>	<b>100%</b>	<b>175</b>	<b>100%</b>	<b>214</b>	<b>100%</b>







	Highest Concentration of Research Expertise
	Second Highest
	Third Highest




## 1.10 Research Centres and Laboratories

With the results of the 2013-14 Applied Research Survey, 670 research centres and laboratories have been identified, this is 181 more than the previous year. Table 3 illustrates the breakdown of these centres by province and territory. A more detailed list of research centres and laboratories is provided in Annex 3.



**TABLE 3**  
**BREAKDOWN OF CENTRES AND RESEARCH LABORATORIES - TOTAL 670**

	 Natural Resources and Energy		 Environmental Science and Technologies		 Health Medical and Life Sciences		 Information & Communication Technologies		 Manufacturing and Building Technology		 Social Innovation	
	#	%	#	%	#	%	#	%	#	%	#	%
Newfoundland and Labrador	4	3%	1	1%	2	2%	1	1%	2	1%		
Prince Edward Island	1	1%	1	1%	3	3%			3	2%	1	1%
Nova Scotia	4	3%	3	4%	1	1%	3	3%	4	3%		
New Brunswick	2	2%	0		2	2%	4	4%	4	3%	1	1%
Quebec	19	15%	13	16%	9	8%	13	13%	29	19%	31	31%
Ontario	44	34%	31	38%	62	56%	54	56%	78	51%	24	24%
Manitoba	7	5%	1	1%	3	3%	2	2%	6	4%	2	2%
Saskatchewan	2	2%	1	1%	2	2%	1	1%			2	2%
Alberta	30	23%	15	18%	10	9%	10	10%	14	8%	13	13%
British Columbia	6	5%	14	17%	16	14%	7	7%	12	8%	24	24%
North West Territories	3	2%	0		0		0					
Nunavut	4	3%	0				1	1%				
Yukon	2	2%	2	2%	1	1%	1	1%	1	1%	1	1%
<b>Total</b>	<b>128</b>	<b>100%</b>	<b>82</b>	<b>100%</b>	<b>111</b>	<b>100%</b>	<b>97</b>	<b>100%</b>	<b>153</b>	<b>99%</b>	<b>99</b>	<b>100%</b>

	Highest Concentration of Centres and Laboratories
	Second Highest
	Third Highest

Institutions in Ontario reported the highest number of research centres and laboratories across the six areas of research, except social innovation. Similar to last year, Quebec has the largest number of research centres in social innovation. Alberta stands out in the natural resources, environmental and health fields, while in British Columbia

there is a high proportion of centres for social innovation and life sciences. Newfoundland and Labrador, Nova Scotia and the Yukon have seen a slight increase in the number of centres in natural resources and energy, and in the health, medical and life sciences.

## 1.11 Research Networks

The 2013-14 survey identified 306 research networks at the local, regional, provincial and national levels. A list of the research networks is available in Annex 4.



### 1.11.1 Provincial and Territorial College and Institute Research Networks

The provincial and regional research networks strive to increase institutions' capacity through knowledge sharing and developing common practices. The current provincial and regional networks are described below.

The **British Columbia Applied Research and Innovation Network (BCARIN)**, with representatives from colleges in British Columbia and from Yukon College, meets to share information about applied research and innovation activities and to support the development of institutional policies and practices. <http://www.bcarin.ca/>

The **Heartland Applied Research Partners (HARP)**, formerly the Great Plains Applied Research Network (GPARN), comprises directors of applied research from Red River College and Saskatchewan Polytechnic, and senior officers of academic and research services from University College of the North and Assiniboine Community College. HARP delivers applied research capacity that brings value to students, industry and community partners and the regional economy.

The **Colleges Ontario Network for Industry Innovation (CONII)** comprises 24 colleges and institutes supported by the Ministry of Economic Development and Innovation. CONII connects SMEs to the applied research and commercialization expertise of colleges and institutes to help SMEs develop their products and become more competitive. All 24 colleges and institutes have representation on the Colleges Ontario Heads of Applied Research Committee that assists with the promotion and expansion of applied research. Effective February 1st, 2013, CONII was integrated into the **Ontario Centres of Excellence (OCE)**. OCEs, with support from the provincial and federal governments, drive the development of Ontario's economy by helping create new jobs, products, services, technologies and businesses. In partnership with industry and universities, OCEs invest in commercializing the innovations coming out of the province's colleges, universities and research hospitals. <http://www.oce-ontario.org/>

Representing the 48 cégeps of Quebec, the **Association pour la recherche au collégial (ARC)** works to develop research in college-level academic institutions by taking a position on relevant and related issues, hosting activities and lectures, setting up support measures for research, and awarding prizes. <http://vega.cvm.qc.ca/arc>

The **Réseau Trans-tech** groups Quebec's 49<sup>7</sup> college centres for the transfer of technology (CCTTs). Falling under cégeps' authority, CCTTs are recognized by Quebec's ministère de l'Éducation, du Loisir et du Sports (MELS). The CCTTs' mandate is to conduct applied research activities and provide technical support and information in a particular field to help develop and accomplish technologically and socially innovative projects and implement and disseminate innovation. <http://reseautranstech.qc.ca/>

The **Applied Research Network of the Atlantic Provinces Community College Consortium** is formed of research directors from the College of the North Atlantic, Nova Scotia Community College, Holland College, New Brunswick Community College and the Collège communautaire du Nouveau Brunswick. Its primary mandate is to help applied research progress through collaboration, cooperation and the sharing of best practices. <http://www.apccc.ca/research/reference.html>

The **Social Economy Research Network of Northern Canada** is part of a national research program funded by the SSHRC. This network is led by Aurora College, Nunavut Arctic College and Yukon College and their respective research institutes. The network links researchers working in the North with students, community organizations and universities for research on the following themes: the social economy in northern Canada; resource regimes and social economy in the north; the impact of public policy on social economic development in the north; and indigenous communities and the social economy. <http://yukonresearch.yukoncollege.yk.ca/sern/aboutsernnoca/>

<sup>7</sup>There are currently 49 CCTTs in Quebec. However, at the time of this study, only 46 CCTTs were recognized by the MELS.

### 1.11.2 Regional and Sector-Specific Networks

Involvement in regional and sector-specific research networks enables colleges and institutes to remain abreast of industry innovations and connected to leading edge practices and research. The following are some examples of sector research networks.

The **Regional Innovation Network of Southern Alberta (RINSA)** is a collaborative partnership between Lethbridge College, Economic Development Lethbridge, and the University of Lethbridge, with support from Community Futures Lethbridge Region, SouthGrow Regional Initiative and the National Research Council – Industrial Research Assistance Program. RINSA serves an area from south of Calgary to the Canada/USA border, and from the Town of Taber to the Alberta/BC border, however, its effect is felt far beyond these informal borders. The purpose of RINSA is to offer entrepreneurs and SMEs:

- Innovation support, technology transfer and commercialization programs;
- Marketing, business development, training and export development services;
- Networking and match-making services;
- Business incubation opportunities;
- Access to funding at various stages (vouchers, angel investment, venture capital) and;
- Access to funding through Community Futures' lending services for start-up and/or expansion.

<http://www.rinsa.ca/>

The **Canadian Rural Research Network (CRRN)** facilitates sharing of research outputs and research-related information among various rural stakeholders, from academia, the public sector and the private sector, including practitioners, professional consultants, formal and informal community groups and organizations, local government and government officials. The CRRN is a vehicle for partners on the demand and supply side of rural research to keep up-to-date with rural research news, to make connections with other stakeholders or interested parties, and to develop partnerships for research and dissemination purposes. The Selkirk College in British Columbia is a member of the CRRN along with public colleges in Alberta, which are also members of the Alberta Rural Development Network.

<http://rural-research-network.blogspot.ca/>

#### The Interactive Manufacturing Innovation Networks

**(iMiN)** is an online network for manufacturers throughout Ontario, developed in partnership with local manufacturers, government, associations and academic institutions. iMiN helps manufacturers become more innovative by building awareness and innovation throughout Ontario and beyond. iMiN aims to improve collaboration and knowledge sharing between companies and industry professionals facilitate the sharing of best practices, standard protocols and new innovations. Centennial, Conestoga, Durham, St. Clair, St. Lawrence and Seneca Colleges are members of iMiN. <http://www.iminonline.ca/>

#### The Territoire innovant en économie sociale et solidaire

**(TIESS-OLT)** has been established in Quebec by the Chantier de l'économie sociale, the Centre de recherche sur les innovations sociales (CRISES), the Karl Polanyi Institute at Concordia University, and the Université du Québec à Montréal, Service aux collectivités. Cégep régional de Lanaudière is involved in TIESS-OLT through their social innovation research activities. TIESS-OLT gathers organizations and researchers in the social economy field, and centralizes and broadcasts information on innovation that meets regional development needs. <http://www.chantier.qc.ca/?module=document&uid=2056>.

The **Geomatics Association of Nova Scotia (GANS)** is a non-profit association created to help further promote the development of the geomatics industry in Nova Scotia, while making it competitive both domestically and internationally, and increasing its material contribution to the provinces economy. GANS fosters geomatics within all sectors of the Nova Scotia economy through collaboration among a broad membership representing the public and private sector. The Centre of Geographic Sciences at Nova Scotia Community College works closely as a private partner with GANS. <http://www.gans.ca/>

## 1.12 Performance Measurement of Applied Research

Colleges and institutes use performance measurement metrics and tools to report on applied research activity. Colleges and institutes in Alberta, Ontario and Quebec have strong performance measurement and reporting systems owing to research-intensive provincial associations.

In 2013-14, 61% of respondents had performance indicators in place. Colleges and institutes identified the following performance indicators that most effectively demonstrate the impact of research activities on business or community partners:

- Number of new products, technologies, services or processes
- Number of prototypes
- Number of improved products, technologies, services or processes
- Number of new licenses
- Number of patents
- Number of jobs created or maintained for the company or community partner

Colleges and institutes identified the following indicators to report on the impact of applied research on institutions, faculty, staff and students. The institutions establish indicators that summarize their contributions:

- Number of students who participate in these projects
- Number of professors and professionals participating in the applied honours projects
- Number of business and community partners
- Funding for research activities and the total of in-kind contributions invested by SMEs in research and development projects

- Impact of applied research on (1) businesses, (2) community, (3) faculty (4) and students
- Number of partnerships
- Number of businesses having received R&D services from the college
- Number of projects under member agreement in the NRCC's IRAP network
- Number of specialized workshops offered
- Number of articles published in scientific journals
- Return on investment of provincial grants

In Quebec, the Ministère de l'Enseignement supérieur, de la Recherche et de la Science (MESSR) produced the *Rapport d'évaluation de la performance du dispositif des centres collégiaux de transfert de technologie (CCTT)* (evaluation report for the performance of college centres for technology transfer), which assessed CCTT research activities.



### 1.13 The Legacy Impact of Applied Research on Curricula

Introducing applied research to curricula has forged new ways of learning in colleges and institutes. Students can now work directly on innovative and applied research projects in collaboration with partners from the private sector. Fulfilling applied research mandates also allows faculty to stay abreast of the latest trends. As a result, research has been

integrated directly into many new courses. Survey findings show that colleges and institutes offer many courses with applied research projects and therefore the long-term effects of applied research can be felt by employers, in students' learning process, the educational approach and the programs.

#### 1.13.1 Impact for Students

Applied research provides students with an authentic learning experience, enriches their academic background and allows them to be even further engaged in their studies. It links faculty members with outside partners by aligning the curriculum with the industry's future needs. As a result, students develop rigour and professional skills that are desirable in the job market. Applied research activities facilitate skill acquisition in innovation. Various applied research activities in the classroom round out existing coursework and help students acquire or deepen the concepts and values of innovation, scientific research, social development, community involvement and sustainable development.

**The NSERC-funded Industrial Research Chair for Colleges at the Cégep de Sept-Îles focuses on railway operations and maintenance. More specifically, it is focused on operating long and heavy rail convoys in northern areas. A total of 33 students participated in the research projects and 25 students attended a lecture on industrial maintenance, with a section on railway maintenance. Several projects would never have seen the light of day without the Chair, and therefore student participation would not have occurred.**

### 1.13.2 Impact on Curriculum

Applied research also has an impact on teaching methods. Students participate in interactive learning sessions and have opportunities to solve the types of problems they could encounter in the workforce. This added-value in students' training strengthens coursework. Employers prefer learning approaches, where students develop employment-ready skills. New technologies are incorporated into the curriculum and specific projects can be used as examples throughout the semester.

The integration of applied research and curricula also keeps program content current and provides access to industry-relevant technologies and equipment. The inter-relationships between industry and teaching staff allow teachers to stay informed in their respective fields.

Colleges and institutes reported that the integration of applied research in curriculum fosters new partnerships with industry and business, and strengthens existing partnerships. It is an opportunity for students to develop a passion that can lead them to create businesses or develop and improve products, processes or services.

**The Office of Research and Innovation at George Brown College has launched a new digital badging program to acknowledge students' participation and accomplishments in applied research. A digital badge of excellence in research and innovation indicates a tangible experience in a real and professional setting as part of applied research at the college. Students who receive these badges have acquired hands-on skills that may not be reflected on their transcripts. These skills include problem-solving, teamwork and finding innovative solutions to industry issues.**

## 1.14 Outcomes of Applied Research

The fine-tuning of new products and capitalizing on innovative ideas is key to improving productivity in Canada. Respondents were asked to report on the number of products, processes and services that were created or

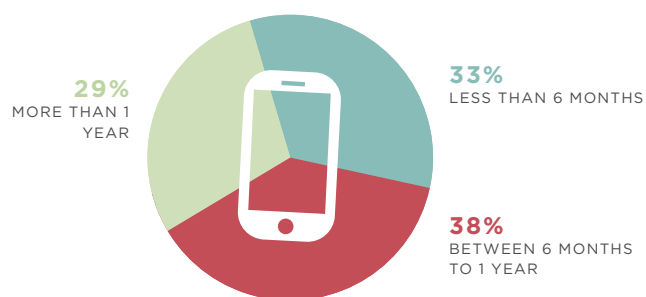
improved through their applied research activities, and the timeframe over which these activities were carried out.

### 1.14.1 Products

Respondents identified 467 products, most of which were designed or improved over a short period (6 months to 1 year), including:

- Mobile applications
- A manipulator robot
- A solar mill
- A network of wireless sensors for an energy efficiency measurement system
- An online tutorial for reading, analysis and writing of documents
- An optical eye for pharmacies
- A network of captors at water level
- Agricultural products (seeds)

FIGURE 3: PRODUCTS



In May 2011, Red River College became a partner in an international consortium with Mitsubishi Heavy Industries, New Flyer Industries, Manitoba Hydro and the Province of Manitoba to develop an all-electric, zero emission transit bus and rapid charger. The project grew with additional support from Sustainable Development Technology Canada, City of Winnipeg, Manitoba's Vehicle Technology Centre and NSERC CCI ARD-2 grant.

In 2014, the consortium achieved their goal of developing and testing a prototype all-electric transit bus and rapid charger that works in Winnipeg's harsh winter conditions. This was followed by full production and field demonstration, bringing four more buses into full service with Winnipeg Transit.

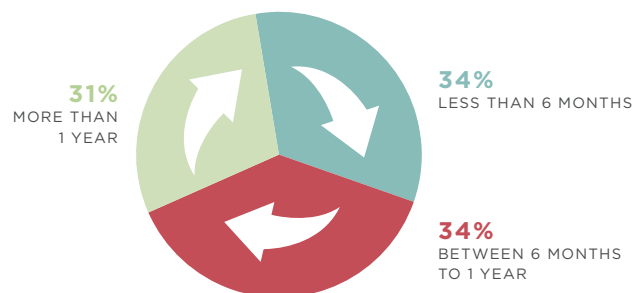
### 1.14.2 Processes

Colleges and institutes also improve or design processes through applied research. A process refers to a continuous series of actions or steps taken in order to achieve a particular end.

For 2013-14, respondents identified 243 processes, such as:

- Automation of tool injection moulding process
- Automated the production line for a local manufacturer
- Aquaculture monitoring protocols
- Correction methods for telescope beams
- New welding process
- IT infrastructure to improve shipping processes
- Liquid extraction process
- Vegetable cultivation techniques
- Prescription verification system for pharmacies
- GPS technology solution to track materials on job sites.

FIGURE 4: PROCESSES



Once again, a relatively stable breakdown can be seen across time, as shown in Figure 4.

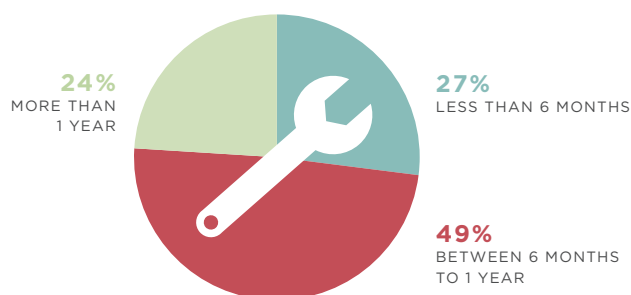
Zandel Média, Inc. works in digital entertainment. Created in 2011, the Zandel called on the Cégep de Matane's Centre de développement et de recherche en imagerie numérique (CDRIN) for assistance in their innovation process. A CCI Program Level 1 Applied Research and Development grant received in 2012 led to a proof of concept to combine the interactivity of the video game with the richness of movie images in yet unattained ways. Jean-Michel Simard,

professor of Multimedia Integration Techniques, and Maxime-Raphaël Cyr, professor of 3D Cartoon Images and Image Synthesis participated in research work and development for this proof of concept. Four years later, on November 26, 2014, Zandel officially launched MISSING, its first interactive suspense application. The day following its launch, MISSING proudly figured among the top paid applications on iTunes Canada.

### 1.14.3 Services

Applied research also produces services, which are non-material goods, the production and consumption of which are simultaneous. This could include wholesale and retail sales, restaurants and hotels, transportation, storage, communications, finance, insurance and community, social or personal services. Colleges and institutes identified 65 services developed over the course of 2013-14. Examples include the establishment of local open online courses (LOOC), and the use of digital tablets for teaching purposes.

FIGURE 5: SERVICES



### 1.14.4 The Impact of CCTTs in Quebec

Réseau Transtech was not able to provide specifics with respect to the number of products, processes, and services developed by the 46 CCTTs. They did, however, provide an indication of the impact CCTTs are having in on local businesses and communities in Quebec from a 2014 report entitled *La contribution économique des cégeps et des centres collégiaux de transfert de technologie*.

The CCTTs have worked with an ever-growing number of businesses and organizations. Many SMEs in the embryonic stage are lacking financial and human resources, thus slowing their innovation. The collaborative approach of the CCTT networks fills this need and strengthens the cycle

of innovation. In parallel, income from these activities is assessed at 50.4 million dollars for 2012-13.<sup>8</sup> CCTTs have carried out 8,678 mandates in more than 3,800 organizations, 65% of which are SMEs and 15% are large companies. They also led 1,450 applied research projects, 5,400 technical support projects and 1,700 training and information projects.

<sup>8</sup> KPMG (2014). *La contribution économique des cégeps et des centres collégiaux de transfert de technologie*, p. 16.

## 2. External Funding Sources

The Survey of Applied Research Activity has confirmed that, over the last five years, colleges and institutes have been receiving increased funding for applied research, particularly from the private sector and the federal government.

In 2013-14 colleges and institutes reported \$207,365,756 in external funding, up by 12% from 2012-13. Table 4 shows that the federal government remains the largest source of funding for college and institutes for a total of \$85,124,512, up 19% from the previous year. Contributions from the private sector are also significant at \$78,275,654, a 9% increase from the previous year.

Investments from provincial and territorial governments are assessed at a total of \$40,025,691, up 10%. Contributions from foundations quadrupled in 2013-14, while those from community-based organizations doubled.

Colleges and institutes also reported a decrease in contributions from municipalities and international partners.



TABLE 4

EXTERNAL FUNDING SOURCES FOR COLLEGES AND INSTITUTES IN APPLIED RESEARCH

Funding Sources	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Federal Government	\$27,886,643	\$33,661,068	\$71,978,719	\$71,424,198	\$85,124,512
Private Sector	\$44,622,335	\$50,376,575	\$59,445,302	\$71,948,284	\$78,275,654
Provincial/Territorial Governments	\$28,821,309	\$29,760,550	\$44,034,464	\$36,344,644	\$40,025,691
Foundations	\$838,411	\$1,372,555	\$730,347	\$587,468	\$2,100,513
Community Service Organizations	\$167,575	\$318,554	\$831,083	\$406,960	\$791,962
Municipal Governments	-	-	\$532,762	\$313,131	\$181,555
International Partners	-	\$295,260	\$1,532,583	\$3,510,400	\$865,869
<b>Total</b>	<b>\$102,336,273</b>	<b>\$115,784,562</b>	<b>\$179,085,260</b>	<b>\$184,535,085</b>	<b>\$207,365,756</b>

In 2013-14, 95% of external funding was for business and industrial research and 5% for social innovation. Colleges and institutes saw a considerable rise (20%) in research on social innovation funded by the private sector and foundations for a total of \$3,744,402. Municipalities invested in industrial research more than in social innovation. In contrast, over

the same period, foundations favoured research in social innovation (52%) over commercial and industrial research (48%). The proportion of investment from the Government of Canada in industrial research dropped slightly this year (91%), compared to last year (97%).

Table 5 shows the sources of federal funding for 2013-14. The Tri-Council College and Community Innovation program, administered by NSERC, is again the main funding source this year, for a total of \$46,427,328, up 30% from 2012-13.

The second funding source is the Canada Foundation for Innovation, which makes up 15% of all federal sources (doubling from last year). Funding from Western Economic

Diversification also rose (85%) and represents 9% of federal sources. In 2013-14, the CCTTs received \$3,171,753 from the Canada Economic Development for Quebec Regions — a 32% rise from the previous year. However, colleges and institutes reported a major drop (-29%) in the funding received through the Indirect Costs Program, which added up to \$798,785.

**TABLE 5**  
**FEDERAL FUNDING FOR APPLIED RESEARCH IN COLLEGES AND INSTITUTES**

Tri-Council College and Community Innovation Program	\$46,427,328
Canada Foundation for Innovation	\$12,920,602
Western Economic Diversification	\$8,036,555
Federal Economic Development Agency for Southern Ontario (FedDev Ontario)	\$3,243,065
Canada Economic Development for Quebec Regions	\$3,171,753
National Research Council - Industrial Research Assistance Program (IRAP)	\$2,434,109
Federal Economic Development Initiative for Northern Ontario	\$1,343,000
Atlantic Canada Opportunities Agency	\$1,220,537
Natural Sciences and Engineering Research Council (non-CCI)	\$1,125,708
Department of National Defence	\$820,283
Federal Government Indirect Costs Program	\$798,785
Employment and Social Development	\$725,936
Canadian Institutes of Health Research	\$184,939
Agriculture Agri Food Canada	\$478,372
Aboriginal Affairs and Northern Development	\$456,991
Social Sciences and Humanities Research Council	\$390,239
Canadian Northern Economic Development Agency (CanNor)	\$361,234
Citizenship and Immigration Canada	\$336,079
Environment Canada	\$184,610
Other	\$130,769
Canada Research Chairs	\$100,000
Natural Resources Canada	\$99,832
International Development Research Centre	\$60,000
Parks Canada	\$50,000
Transport Canada	\$18,113
Health Canada	\$5,672
<b>Total</b>	<b>\$85,124,512</b>

## 2.1. Tri-Council College and Community Innovation Program

The Tri-Council College and Community Innovation (CCI) Program was founded in 2008 and is managed by the Natural Sciences and Engineering Research Council of Canada (NSERC) in partnership with the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institutes of Health Research (CIHR).

The CCI Program aims to increase innovation at the community and/or regional level by enabling Canadian colleges to increase their capacity to work with local companies, particularly small- and medium-sized enterprises

(SMEs). It supports applied research and collaborations that facilitate commercialization, as well as technology transfer, adaptation and adoption of new technologies.

Since its inception, the Program has demonstrated benefits for all stakeholders: increased research capacity of colleges and institutes, value-added research partnerships that benefit companies and colleges, enhanced curricula and professional growth for faculty and employment opportunities for students.

**Innovation Enhancement (IE)** Grants enhance college applied research capacity and strengthen industry partnerships. IE grants are awarded for either a two-year or a five-year period. The two-year grants include funding of \$100,000 per year over two years. The five-year grants include funding of up to \$500,000 per year for the first three years, and up to \$400,000 for the remaining years.

**Applied Research and Development (ARD)**<sup>9</sup> Grants provide companies with access to college expertise and student support for specific research projects that help solve problems geared to business goals. The grants range from six months to three years in duration and have three levels of funding – under \$25,000; up to \$75,000; and over \$75,000.

**Applied Research Tools and Instruments (ARTI)** Grants support the purchase of research equipment and installations to enhance college applied research with industry partners. Grants range from \$7,000 to \$150,000.

**Technology Access Centre (TAC)** Grants provide companies with access to college expertise, technology and equipment. TAC grants provide five-year, renewable funding of up to \$350,000 per year.

**Industrial Research Chairs for Colleges (IRCC)** Grants support applied research leaders in economic sectors that spark greater innovation in communities, enhanced teaching and curricula, and more opportunities for college-industry and college-university partnerships. IRCC grants range from \$100,000 to \$200,000 annually.

**College-University Idea to Innovation (CU-I2I)** Grants develop and strengthen collaborations between colleges, universities and businesses to improve a company's technology or commercial products, processes or services. CU-I2I grants are valued up to \$250,000 per year, for up to three years.

For 2013-14, colleges and institutes received \$46,427,328 from the CCI Program, as shown in Table 6. As in the previous year, the highest proportion (39%) of the funds was for the five year Innovation Enhancement grants. The Applied Research Tools and Instruments grants, the Applied Research and Development grants and the Technology Access Centre grants account for 22%, 15% and 9%, respectively.

<sup>9</sup>Effective April 1, 2015:

(1) The ARD Level 1 Grant will be renamed Engage for Colleges Grants and will be grouped with the university Engage Grants.

(2) The ARD Levels 2 and 3 Grants will be combined into one Applied Research and Development Grants (with two levels of funding and matching).



TABLE 6

TRI-COUNCIL CCI FUNDING (2013-2014)

Tri-Council CCI Grants	Total
Innovation Enhancement grants (5-yr)	\$18,106,011
Applied Research Tools and Instruments (ARTI) grants	\$10,326,978
Applied Research and Develop (ARD) grants	\$6,995,411
Technology Access Centre (TAC) grants	\$4,325,454
Industrial Research Chairs for Colleges (IRCC)	\$3,500,500
College-University Idea to Innovation Program	\$2,356,166
Innovation Enhancement Grants	\$599,960
Technology Access Centres—letters of intent	\$96,630
Workshops on best practices	\$90,000
Grants for partnership workshops	\$17,561
Undergraduate research grants	\$12,656
<b>Total</b>	<b>\$46,427,327</b>

Increased investments in the CCI Program to support student applied research awards for college students in diploma and post-diploma programs would provide more students with industry-relevant research experience that contribute to business innovation.

For the 2014-15 fiscal year, requests for five-year innovation enhancement grants have increased by 64% (46 for the current year compared with 28 for last year). The 2014-15 CCI Program budget can only fund eight new grants. In 2014-15, 32 TAC grant applications were received. In the next two years, the budget can only fund three full TACs and three incremental TACs (in Quebec) annually.

Colleges and Institutes Canada recommends an increase to the budget of the CCI program by \$25 million annually:

- \$15 million to meet the increased demand for Innovation Enhancement and Applied Research and Development grants;
- \$7 million to fund 20 additional Technology Access Centres, and;
- \$3 million to establish a dedicated envelope within the CCI for 650 applied research awards for students in college diploma, degree and post-graduate programs.

### 2.1.1. Impact of the CCI program

Colleges and institutes confirmed the CCI Program builds capacity within their institutions, enhances research partnerships and contributes to economic and social development within the communities and regions they serve. Applied research enhances links to local businesses, bolsters research infrastructure, develops specialized research centres, and enhances curriculum by integrating research results into

academic programs. Students gain hands-on experience with industry to conduct research, troubleshoot problems, and develop products. On the other hand, companies benefit from access to the expertise and technologies available in colleges and institutes.

## 2.2. Social Sciences and Humanities Research Council

The mandate of the Social Sciences and Humanities Research Council (SSHRC) is to promote and support postsecondary research and research training in the social sciences and humanities through partnership funding opportunities under its Insight, Connection and Talent programs.

The scale and scope of college and institute applied research in social innovation is significant, and makes a difference for community and social service organizations across the country, whether improving the lives of disadvantaged Canadians, addressing environmental challenges, enhancing teaching and learning, or improving health and wellness in communities.

While colleges and institutes are encouraged to apply to SSHRC's funding opportunities, the proportion of projects awarded to colleges and institutes has remained small. In 2013-14, SSHRC funds received by colleges and institutes totaled \$390,239.

The launch of the pilot Community and College Social Innovation Fund in November 2014 within SSHRC's Partnership Development Grants will provide \$15 million over three years in support of social innovation research projects

at colleges and institutes. It will connect the talent, facilities, and capabilities of Canada's colleges and institutes with the research needs of local community organizations as well as facilitate the development of collaborative social innovation research that brings together researchers, students and partners to address research challenges pertaining to social innovation. Currently, 64 colleges and institutes are eligible to apply for SSHRC funding.

The value of the grant is up to \$200,000 plus an additional 20 per cent to offset overhead costs, administrative costs, reduction in course load for full-time college and institute faculty staff and some salary support for part-time college faculty staff. The duration of the grant is one to three years. The deadline date for the first competition was March 2, 2015. Results will be announced in June 2015. For more information regarding this program, please visit: [http://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/social\\_innovation-innovation\\_sociale-eng.aspx?pedisable=true](http://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/social_innovation-innovation_sociale-eng.aspx?pedisable=true)

### 2.3. Canada Foundation for Innovation – College-Industry Innovation Fund

The Canada Foundation for Innovation's College-Industry Innovation Fund (CIIF) aims to reinforce colleges' capacity to support innovation in Canadian businesses. This fund puts cutting-edge and industry-relevant research infrastructure at colleges' disposal, in order to favour partnerships with the private sector in a specific field strategic to the institution.

With the launch of the CIIF, colleges and institutes have access to two funding streams:

#### **STREAM 1:**

##### **Research infrastructure**

Aims to enhance existing applied research and technology development capacity.

#### **STREAM 2:**

##### **RESEARCH INFRASTRUCTURE ASSOCIATED WITH PROJECTS THAT QUALIFY FOR FIVE-YEAR CCI PROGRAM INNOVATION ENHANCEMENT GRANTS**

Builds on the research infrastructure associated with projects that qualify for Five-Year CCI Program Innovation Enhancement Grants. This joint initiative allows colleges to submit a combined funding request to cover research costs (grant from the CCI-RI) and research infrastructure (CFI's College-Industry Innovation Fund – Stream 2).

In 2013-14 colleges and institutes reported \$12,920,602 in CIIF funding, more than double the amount reported in 2012-13. The CFI has allocated up to \$50 million to the CIIF for five annual competitions.

### 2.3.1. Impact of the Canada Foundation for Innovation

The grants received through the CFI are used to pay for equipment, laboratories, databases, scientific collections, computers, communications and buildings necessary to carry out cutting-edge research.

## 2.4. Regional Economic Development Agencies

Regional economic development agencies support applied research through programs and initiatives that provide businesses with access to college and institute research capacity. For 2013-14, colleges and institutes reported funding from the Atlantic Canada Opportunities Agency (ACOA), the Canada Economic Development Agency for Quebec Regions, the Canadian Northern Economic Development Agency (CANOR), the Federal Development Economic Development Agency for Southern Ontario (FedDev Ontario), the Federal Economic Development Initiative for Northern Ontario (FedNor), and Western Economic Diversification Canada (WED). Combined, these Federal economic agencies represent the second largest Federal source of funding after the Tri-Council CCI Program, totaling \$17,376,144.

Canada Economic Development Agency for Quebec Regions provided \$3,171,753 to CCTTs, as reported by Réseau Trans-Tech. Canada Economic Development Agency for Quebec Regions supports innovation, technology adoption or transfer. The CCTTs received funding for several activities including technology transfer, performance enhancement and increased productivity of industry partners.

Yukon College reported a \$361,234 grant from CanNor in 2013-14 for research related to the knowledge economy and business planning innovation projects. This grant is funded by CanNor's Strategic Investments in Northern Economic Development (SINED) Program, which focuses on long-term economic growth, economic diversification and capacity-building in all three territories.

In Ontario, FedDev Ontario has enabled colleges and institutes to work with SMEs on research and innovation in areas that include product, process and technology development; and product testing, piloting and demonstration. In 2013-14, Ontario colleges reported they received \$3,243,065.

WED supported the expansion of the applied research and innovation portfolio of colleges and institutes in Western Canada through infrastructure investments. Five institutions received funding from WED in 2013-14: Camosun College, Lakeland College, Medicine Hat College, Olds College and Northern Alberta Institute of Technology, SAIT Polytechnic and Saskatchewan Polytechnic, for a total of \$8,036,555.

Contributions from regional development organizations reinforce institutions' capacity to meet local companies' needs in innovation. However, these contributions dropped by 21% in 2013-14.

### 2.4.1. Impact of Regional Economic Development Agencies

Contributions from regional economic development agencies support faculty's professional development while also connecting with various players in the private sector. Students also benefit from these activities, since they provide access to work opportunities, professional networks and practical experience on a specific project. Access to these funds strengthens colleges and institutes' credibility in applied research. Small, medium and large businesses

now have access to the resources colleges and institutes offer, which was not the case before the creation of these grants. Collaboration between these stakeholders leads to a reduction in time-to-market and improves businesses' ability to commercialize their products.

## 2.5. National Research Council of Canada – Industrial Research Assistance Program

The \$80 million three year pilot Digital Technology Adoption Pilot Program (DTAPP) delivered through the Industrial Research Assistance Program (IRAP) of the National Research Council of Canada provided support to SMEs to accelerate the adoption of digital technologies. The pilot provided opportunities for colleges and institutes to work with local companies to adopt new technologies, identify areas for productivity improvement and assess methods, technologies and operational changes on how to implement and integrate the new systems. Table 7 shows the National Research Council support to colleges and institutes for both IRAP and DTAPP.

In March 2014, NRC-IRAP launched a \$20 million commercialization voucher program for SMEs. The two year pilot Business Innovation Access Program (BIAP) will provide SMEs with the opportunity to partner with colleges and universities for their applied research needs, adopt new technologies, and bring innovative products and solutions to the marketplace more rapidly. This program will further enhance the value of college-SME applied research partnerships and the importance of linking SMEs with the applied research services of colleges and institutes.

**With the support of DTAPP, Selkirk College was able to leverage its greatest assets – digital technology and geospatial research – to meet the critical needs of SMEs for digital technology R&D. The college has moved from a place of limited capacity to one of established procedures,**

**processes and successes in helping SMEs with challenges such as database mechanization, rapid prototyping and geospatial mapping. DTAPP terminated March 31, 2014.**

TABLE 7

## FINANCIAL SUPPORT FROM THE IRAP-NRCC FOR COLLEGES AND INSTITUTES IN THE 2013-14 FISCAL YEAR

Region	College/Institute	Number of Projects	Funded Amounts
Pacific	British Columbia Institute of Technology	2	\$21,647
	Camosun College	1	\$154,995
	College of New Caledonia	2	\$138,062
	Okanagan College	1	\$5,678
	Selkirk College	1	\$245,107
	Yukon College	2	\$57,660
<b>Pacific Total</b>		<b>9</b>	<b>\$623,149</b>
West	Grande Prairie Regional College	1	\$44,040
	Red Deer College	2	\$124,951
	Red River College	1	\$68,345
<b>Total West</b>		<b>4</b>	<b>\$237,336</b>
Ontario	Cambrian College	2	\$15,000
	George Brown College	2	\$149,918
	Georgian College	1	\$130,000
	Mohawk College	1	\$30,840
	Niagara College	1	\$100,000
<b>Ontario Total</b>		<b>7</b>	<b>\$425,758</b>
Quebec	Cégep de Sherbrooke (CPIQ)	1	\$5,695
	Cégep de Lévis-Lauzon (CRVI)	1	\$49,524
	Réseau des centres de transfert de technologies des cégeps du Québec	6	\$658,659
<b>Total Quebec<sup>1</sup></b>		<b>8</b>	<b>\$713,878</b>
Atlantic	Collège communautaire du Nouveau-Brunswick (CCNB)	2	\$128,992
	College of the North Atlantic	1	\$70,000
	Holland College	2	\$85,000
	New Brunswick Community College	2	\$50,000
	Nova Scotia Community College	2	\$69,996
	Nunavut Arctic College	1	\$30,000
<b>Total Atlantic</b>		<b>10</b>	<b>\$433,988</b>
<b>Grand Total</b>		<b>38</b>	<b>\$2,434,109</b>
34 colleges received a grant from the IRAP <sup>2</sup>		34	

1. In Quebec, 12 unique colleges participate in the Trans-tech network or in an independent contribution agreement.

2. This includes colleges' financial contributions for the 2013-14 fiscal year via regular IRAP, CO and DTAPP funding data source: Sigma/Sonar

Prepared for the IRAP workgroup on September 24, 2014

### 2.5.1. Benefits of the Industrial Research Assistance Program

This program supports regional economic development by giving regions the tools they need to be more competitive both nationally and internationally. The IRAP fosters a culture focused on applied research in colleges and institutes. The positive results of this program can be measured primarily by better access to resources in a field of interest. More specifically, various partners from the private sector can

benefit from a network of qualified students ready to work on specific projects. All in all, the partnerships between colleges, institutes and private sector partners improve the product commercialization process.

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### 2.6. Indirect Costs Program

For 2013-14, colleges and institutes reported a major drop in funding (29%) from the Indirect Costs Program (ICP), totaling \$798,785. This is mainly because colleges and institutes have limited opportunities to access Tri-Council research grants and funding programs. The ICP, the annual budget of which is \$342 million, will be replaced by the new Research Assistance Fund after the 2014-15 fiscal year.

The CCI program remains ineligible to the ICP. Currently, the 20% for overhead and administrative costs for CCI grants must be applied to expenses related to a specific grant. This comes at the expense of reducing the grant funds available for the research project. Eligibility under ICP would free CCI

funds to be spent entirely on the direct costs of research, allowing colleges and institutes to focus on the objectives of CCI grant and solutions. In addition, this hinders institutions' ability to make long-term planning and investments for future applied research activities. Colleges and Institutes Canada recommends that the Tri-Council CCI Program be included under the ICP to ensure equity and uniformity across the research system for all research activities, be it basic or applied.

# 3. Partnerships

## 3.1. Business and Industry Partnerships

In 2013-14, colleges and institutes partnered with 5,585 companies for business and industrial research. Ninety-five per cent of external funding was for business and industrial research totaling \$199,013,153, up by 12% over last year. As shown in Figure 6, the majority of partnerships were with

SMEs defined as having 5 to 500 employees, followed by large companies with over 500 employees and micro-enterprises with 1 to 4 employees.



**FIGURE 6**  
**DISTRIBUTION OF BUSINESS AND INDUSTRY PARTNERS BY SIZE OF ENTERPRISES**

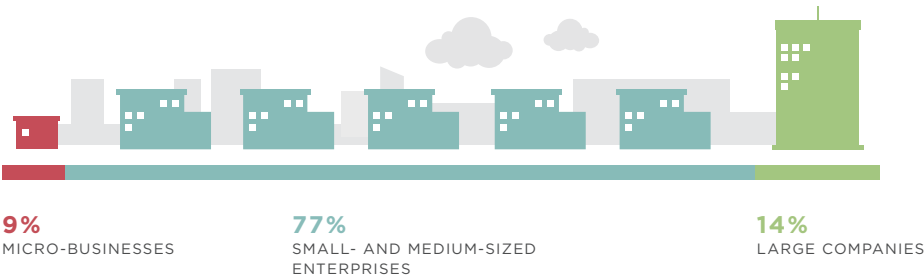


Table 8 shows a sector breakdown of college and institute partnerships with business and industry. The highest proportion of SME partners were in the environmental, natural resources and manufacturing sectors.

**TABLE 8**  
**BREAKDOWN OF PARTNERSHIPS BY SECTOR AND BUSINESS SIZE**

	Micro-businesses	Small- and Medium-sized Enterprises	Large Companies
Natural Resources and Energy	18%	19%	25%
Environmental Science and Technologies	25%	7%	6%
Health Medical and Life Sciences	6%	4%	4%
Information and Communication Technologies	11%	11%	15%
Manufacturing	16%	49%	46%
Building Technology	8%	6%	1%
Other	11%	3%	2%
Services	4%	2%	2%
Social Innovation	0%	0%	1%



### 3.2. Partnerships for Social Innovation Research

Funding for social innovation research represented 5% of college and institute research funding and totaled \$10,474,376 from all sources, up by 41% from 2012-13. Colleges and institutes identified 693 research partners in social innovation, with the greatest portion being community-based organizations or social services.

The survey results show that social service or community organizations, public service agencies or ministries, non-governmental organizations and businesses represent 40%, 30%, 24% and 6% of partnerships, respectively.

**FIGURE 7**  
**BREAKDOWN OF RESEARCH IN SOCIAL INNOVATION BY ORGANIZATION TYPE**



Table 9 shows the social innovation partnerships by category. The greatest number of social innovation partnerships were in education, followed by health, environmental awareness and planning, and services offered to disadvantaged populations.

**TABLE 9**  
**BREAKDOWN FOR RESEARCH IN SOCIAL INNOVATION**

	%
Other	19%
Education	18%
Health	14%
Environmental Awareness and Planning	13%
Social Services	12%
Disadvantaged Populations	11%
Management and Business	3%
Communications and Media	3%
Industrial Relations	2%
Legal System	2%
Educational Grants	2%
Public Safety	1%

### 3.3. Partnerships with Other Post-Secondary Institutions

All colleges and institutes confirmed partnerships with other post-secondary institutions in Canada and abroad.

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#### 3.3.1. Collaboration with Other Colleges and Institutes

Ninety colleges and institutes reported partnerships with other colleges and institutes across Canada and internationally. These post-secondary institutions work closely together and form strategic alliances in the form of institutional partnerships or consortiums.

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#### 3.3.2. Collaboration with Universities

Eighty-five per cent of respondents reported working with universities. Overall, institutions identified partnerships with 89 universities in Canada and overseas (see Annex 5 for a full list), up 43% from 2012-13. Among these, partnerships in Israel, Uruguay, the United States, Brazil, the Netherlands, Ireland, France, Sweden and Australia were identified by Canadian colleges and institutes.

Partnerships with universities are established through joint research agreements, memoranda of understanding, research groups, consortia, transfer agreements and collaboration between Research Ethics Boards. These partnerships mainly touch on information technologies, natural resources and the environment, health and manufacturing.



The CCI program also fosters college/institute and university partnerships through the College-University Idea to Innovation (CU-I2I) Grants. In 2013-14, the CCI program supported CU-I2I grants for a value of \$2,356,166.

### 3.4. International Research Partnerships

Colleges and institutes are increasingly creating international partnerships with the goal of sharing their capacities and expertise. Institutions from the Yukon, Alberta, Manitoba, Ontario, Quebec and Newfoundland reported 48 international partnerships. The value of the funding received in 2013-14 was \$865,869.



**TABLE 10**  
**INTERNATIONAL RESEARCH PARTNERSHIPS**

Sector	Number of Partners	Country	Approximate Funding Received in 2013-2014 (\$)
Natural resources and energy	10	Japan, the United States, France, South Korea, Germany, Belgium, the Netherlands	\$64,500
Environmental science and technologies	5	Qatar, Germany, China, Argentina, the United States	-
Health, medical and life sciences	4	Qatar, Australia, the United Kingdom, the United States	-
Information and communications technology	12	The United States, Brazil	\$209,000
Manufacturing	2	Japan	\$230,094
Building Technology	1	The United Arab Emirates, Poland	\$2,000
Disadvantaged populations	1	Brazil	\$25,000
Education	8	Sweden, Greece, the Ukraine, Suriname, India, Mexico	\$232,000
Management and business	2	The United States, Switzerland	\$47,584
Other	3	France, Brazil, the United Kingdom	\$55,691
<b>Total</b>	<b>48</b>	<b>22 Countries</b>	<b>\$865,869</b>

# Conclusion

The results of the Survey of 2013-14 College and Institute Applied Research Activity clearly demonstrate steady growth in applied research activities in colleges and institutes across Canada. By allocating human and financial resources and putting the necessary infrastructure in place, these institutions are building their capacity to undertake applied research.

Survey results show a high level of partnerships, networks, fields of specialization and applied research centres. Colleges and institutes have expanded their areas of expertise and research specialization with a total of 1,083 in six categories: natural resources and energy, environment, health and medical sciences, information technologies, manufacturing and social innovation. There were 670 research centres and laboratories identified, which is an increase of 37% from 2012-13.



Colleges and institutes also understand the link between innovation and entrepreneurship and the need to foster an entrepreneurial mindset as a core value of their institution and in the businesses and communities they serve. Colleges and institutes instill an entrepreneurial mindset in students through the integration of entrepreneurial skills into curricula, and provide support services for emerging entrepreneurs through on-campus entrepreneurship centres and incubators.

In terms of investments, colleges and institutes have access to various funding sources. Internal funding rose by 6% to a total of \$52,120,022.

In 2013-14 contributions from the private sector continued to rise consistently, following the pattern of the past years: private sector investments rose 9% to reach \$78,275,654, while contributions from the federal government were recorded at \$85,124,512, thus representing 41% of all external funding.

The Government of Canada has recently launched a new pilot project—the Community and College Social Innovation Fund which will provide further opportunities for colleges and institutes to enhance their expertise in social innovation research.

Colleges and institutes are responding to the applied research needs of industry, especially SMEs, the source of 70% of new jobs. Yet, only 2.8% of the \$2.96 billion of federal research investments that flow to post-secondary education institutions are targeted for college and institute applied research partnerships with businesses and communities. Additional federal support for college and institute applied research would increase the capacity of SMEs to innovate and improve productivity.



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Colleges and Institutes Canada  
Collèges et instituts Canada

## Appendix / Annexe 1

### 2013–2014 Applied Research Environmental Scan / Enquête sur les activités de recherche appliquée 2013-2014 List of Participating Institutions / Liste des établissements participants

#### **North West Territories**

Aurora College

Northern Alberta Institute of Technology

Northern Lakes College

Olds College

#### **Nunavut**

Nunavut Arctic College

Portage College

Red Deer College

SAIT Polytechnic

#### **Yukon**

Yukon College

#### **Saskatchewan/**

Gabriel Dumont Institute of Native Studies and  
Applied Research

Parkland College

Saskatchewan Polytechnic

#### **British Columbia**

British Columbia Institute of Technology

Camosun College

Douglas College

Justice Institute of British Columbia

Kwantlen Polytechnic University

Langara College

College of New Caledonia

Northern Island College

Northwest Community College

Okanagan College

College of the Rockies

Selkirk College

Vancouver Community College

#### **Manitoba**

Assiniboine Community College

Red River College of Applied Arts, Sciences and  
Technology

University College of the North

#### **Ontario**

Algonquin College

Collège Boréal

Cambrian College

Canadore College

Centennial College

Conestoga College Institute of Technology and  
Advanced Learning

Confederation College

Centennial College

Fanshawe College

Fleming College

George Brown College

Georgian College

Humber College Institute of Technology and  
Advanced Learning

La Cité

#### **Alberta**

Bow Valley College

Grand Prairie Regional College

Keyano College

Lakeland College

Lethbridge College

Medicine Hat College

NorQuest College

**Ontario**

Lambton College  
Mohawk College  
Niagara College  
Northern College  
St. Clair College  
St. Lawrence College  
Sault College  
Seneca College  
Sheridan College Institute of Technology and  
Advanced Learning

**Quebec**

Cégep Garneau  
Cégep Gérald-Godin  
Heritage College  
Collège Montmorency  
Cégep de l'Outaouais  
Cégep Régional de Lanaudière  
Cégep de Rivière-du-Loup  
Cégep Saint-Jean-sur-Richelieu  
Vanier College  
Institut de tourisme et d'hôtellerie du Québec

**Data Provided by Réseau Trans-tech for the 46  
College Centres for the Transfer of Technology  
at the following cégeps:**

Cégep de l'Abitibi-Témiscamingue  
Cégep André-Laurendeau  
Cégep de Baie-Comeau  
Cégep Beauce-Appalaches  
Cégep de Chicoutimi  
Cégep de Gaspésie des Îles  
Cégep John-Abbott College  
Cégep de Jonquière  
Cégep de La Pocatière  
Cégep de Lévis-Lauzon  
Cégep Marie-Victorin  
Cégep de Rimouski  
Cégep de Saint-Hyacinthe  
Cégep de Saint-Jérôme  
Cégep de Saint Laurent  
Cégep de Sainte-Foy  
Cégep de Sept-Îles

Cégep de Sherbrooke  
Cégep de Sorel-Tracy  
Cégep de Thetford  
Cégep de Trois-Rivières  
Cégep du Vieux Montréal  
Cégep de Victoriaville  
Collège Ahuntsic  
Collège d'Alma  
Collège Dawson  
Collège Édouard-Montpetit  
Collège Lionel-Groulx  
Collège de Maisonneuve  
Collège Mérici  
Collège de Rosemont  
Collège Shawinigan  
Institut de technologie agroalimentaire

**New Brunswick**

Collège communautaire du Nouveau-Brunswick  
New Brunswick Community College

**Nova Scotia**

Nova Scotia Community College

**Newfoundland**

College of the North Atlantic

**Prince Edward Island**

Holland College

## APPENDIX / ANNEXE 2

**2013-2014 Applied Research Environmental Scan / Enquête sur les activités de recherche appliquée 2013-2014**

**Areas of Research Specialization by Category and Province or Territory /**

**Domaines de spécialisation par catégorie et par province ou territoire**

Natural Resources and Energy - 223 Areas of Specialization Ressources naturelles et énergie - 223 domaines de spécialisation	
Province / College/ Collège	Area of Specialization / Domaine de spécialisation
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	Mining Technology Petroleum Engineering Renewable Energy Wave energy conversion for sea water pumping Integrated Multitrophic Aquaculture Energy Natural Resources
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	Food Production Development Wind Turbine Sustainable Energy Renewable Energy Systems
<b>Nova Scotia / Nouvelle-Écosse</b>	
<i>Nova Scotia Community College</i>	Energy Sustainability and Environmental Technologies Solar photovoltaic and solar thermal systems Energy monitoring technology development Energy supervisory control and data acquisition Energy data telemetry Energy data analytics Energy project feasibility analysis Energy auditing including solar site assessment Geomatics
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Agriculture de précision Biotechnologies, bioénergies, bioprocédés et biofermentation Bio-raffinage et biotechnologie au stage pré-commercial Pêche et aquaculture Centre de conservation des sols et de l'eau Agroenvironnement, agroforesterie, agriculture de précision, cartographie et géomatique Technologies pour la transformation des produits forestiers
<i>New Brunswick Community College</i>	Aquaculture Engineering Energy Energy Efficiency



Québec	
<i>Collège d'Alma</i>	Recherche et innovation en agriculture
<i>Cégep André-Laurendeau</i>	Génie physique Logistique du transport
<i>Cégep de Baie-Comeau</i>	Expérimentation et de développement en forêt boréale
<i>Cégep Édouard-Montpetit</i>	Chimie
<i>Cégep Garneau</i>	Photonique
<i>Cégep de la Gaspésie et des Îles</i>	Énergie éolienne Aquaculture et des pêches
<i>Cégep de Jonquière</i>	Énergie renouvelable et rendement énergétique pour les sites isolés
<i>Cégep de l'Outaouais</i>	Intelligence territoriale Énergie
<i>Cégep de La Pocatière</i>	Centre de développement des bio-produits
<i>Cégep régional de Lanaudière</i>	Transformation des aliments
<i>Cégep de Rimouski</i>	Transformation des produits forestiers
<i>Cégep de Rivière-du-Loup</i>	Biométhanisation Biochar
<i>Cégep de Saint-Hyacinthe</i>	Agroalimentaire
<i>Cégep de Saint-Jérôme</i>	
<i>Cégep Saint-Laurent</i>	Technologie de l'eau
<i>Cégep de Sainte-Foy</i>	Foresterie
<i>Collège Shawinigan</i>	Procédés industriels Traitement des gaz
<i>Cégep de Thetford</i>	Technologie minérale et de plasturgie
<i>Cégep de Trois-Rivières</i>	Pâtes et papier
<i>Vanier College</i>	Uses for biomass material
<i>Cégep de Victoriaville</i>	Agriculture biologique Agriculture de proximité et à valeur ajoutée Efficacité énergétique
<i>Institut de technologie agroalimentaire - La Pocatière</i>	Bioproduits
Ontario	
<i>Algonquin College</i>	Plugged in Hybrid Electric Vehicles SmartGrid Technologies Energy Auditing
<i>Collège Boréal</i>	Foresterie Pisciculture Horticulture
<i>Cambrian College</i>	Mining Process Control & maintenance Alternative & renewable energies Power and control of electrical Systems Automation Sustainable Energy Technologies
<i>Centennial College</i>	Sustainable Energy Technology
<i>Confederation College</i>	Renewable Energies including Biomass Water Treatment

<i>Durham College</i>	Renewable Energy
<i>Fanshawe College</i>	Alternative Energy & Sustainable Environments Fuel Additives Evaluation Renewable Energy Technologies
<i>Fleming College</i>	Water and Wastewater Treatment Technology Research Wildlife-based Research
<i>George Brown College</i>	Green Technology (computer, construction, architecture)
<i>Georgian College</i>	Alternative Energy/Systems Environmental Sustainability Solutions Electrical and Power Distribution Sustainable Technologies Energy Management Proof of Principal and Testing product
<i>Humber College Institute of Technology and Advanced Learning</i>	Sustainability Energy Efficiency Management and Evaluation Building Technology Conservation research in the Arboretum
<i>Lambton College</i>	Alternative Energy, Energy Conversion, Storage and Conservation, incl. H2 fuel cells Biodegradable Thermoplastic Vulcanizates (TPV's) Advanced Process Control and Optimization and Simulation Bioprocess Ethanol Bio-refinery, Bio Technology Water and Wastewater Hydrogen Generation and Fuel Cells
<i>Loyalist College</i>	CO2 Extraction
<i>Mohawk College</i>	Energy Technologies Advanced Power System Laboratory: protection and control, industrial network and communication. Advanced Power Quality Laboratory: research related to modern distribution system: electrical vehicle charging unit, smart appliances, photo voltaic unit and distribution transformer
<i>Niagara College</i>	Agriculture Horticulture & Greenhouse Viticulture and Wine Making Food Sciences
<i>Northern College</i>	Electrical power distribution, protection and controls Weater treatment and wastewater management Diamond drilling innovation and performance
<i>Sault College</i>	Renewable & Wind Energy Water Treatment
<i>Seneca College</i>	Environment-Energy Conservation (Aerobic Bioreactor Landfill Technology) Built Environment Environmental Remediation Bioinformatics Microbiology Virology Genetics

<i>Sheridan College Institute of Technology and Advanced Learning</i>	Energy
<i>St. Lawrence College</i>	Agricultural Extension: Artisanal Cheese Renewable Energy
<b>Manitoba</b>	
<i>Assiniboine Community College</i>	Horticulture/Greenhouse/Regional Diets Renewable Energy Field and Greenhouse Food Production Agriculture
<i>Red River College of Applied Arts, Science &amp; Technology</i>	Development and operation using renewable fuels Transportation (fuel efficiency and use of renewable fuels) Clean Technology
<i>Collège Universitaire de Saint-Boniface</i>	Sciences naturelles
<i>University College of the North</i>	Community gardens Northern Manitoba Mining Academy Geochemical/geological Biofuels and Diesel Emissions Reduction
<b>Saskatchewan</b>	
<i>Gabriel Dumont Institute of Native Studies and Applied Research</i>	Traditional lands, peoples, and lifestyles of the Metis Loss of rights or landbase Historical use and ownership
<i>Parkland College</i>	Agriculture Agronomy
<i>Saskatchewan Institute of Applied Science and Technology</i>	Natural Resources
<b>Alberta</b>	
<i>Grande Prairie Regional College</i>	Bio-Carbon Initiatives Carbon capture (CO2) with micro algae Improving Survival and Growth of Conifer Species Seedlings Effluent as an irrigant for hybrid poplar clones Bee Diseases and Pests Honey bee production practices to mitigate bee mortality National Bee Diagnostic Centre
<i>Lakeland College</i>	Field Crop Trials Grazing Management/Habitat Restoration Livestock Trials Renewable Energy Wildlife Use of Natural Area Biodiesel Geothermal and Solar Thermal Heat Storage  Solar heat capture from an attached solarium, integrated with thermal mass and water for heat storage Solar concentrator Wind Energy

	Agriculture
<i>Lethbridge College</i>	Conservation Enforcement Sustainable Housing

<i>Medicine Hat College</i>	Ecotourism and Sustainability Land use practices including agriculture, oil and gas Renewable Energy Solar Energy Applied Research
<i>Northern Alberta Institute of Technology (NAIT)</i>	Local Economic Development Green Chemistry and Engineering Sustainable Building Technologies
<i>Olds College</i>	Alternative Energy Feedstock Trials Bio-Fuel Production and Testing Feed Efficiency Studies Livestock Management Agronomy Bio-Energy Bioprocessing
<i>SAIT Polytechnic</i>	Alternative Energy - Biodiesel Bench-scale prototype testing Membrane filtration Ultrafiltration Nanofiltration Reverse Osmosis Electrodialysis High-Efficiency Electro-Pressure Membrane Hybrid Ceramic Membrane Nanotechnology Frac and Produced water treatment De-Oiling Desalination PCB Soil Remediation
<b>British Columbia/Colombie-Britannique</b>	
<i>British Columbia Institute of Technology</i>	Energy Systems Applications Natural Resources and the Environment Smart Microgrid Renewable Energy
<i>Camosun College</i>	Ocean and Marine Technology
<i>Justice Institute of British Columbia</i>	Rural Remote Coastal Community Disaster Resilience Use of simulations to support diverse training needs
<i>Kwantlen Polytechnic University</i>	Horticulture
<i>Langara College</i>	Conversion of BioMass to Biochar Biochar and its Soil Remediation potential Local Archaeology
<i>College of New Caledonia</i>	Forestry Geomatics Silviculture Biomass gasification for power generation Natural Resource Management

<i>North Island College</i>	Fish Farm Wast & Reclamation Renewable Energy
<i>Northern Lights College</i>	Rehabilitation of Soils
<i>Northwest Community College</i>	Gread Blue Heron Rookery Study Skeena Watershed Euchon Study Shames River Remote Surveillance of Abalone Bed
<i>Okanagan College</i>	Magnetic properties of rocks and sediments Soil mapping
<i>Selkirk College</i>	Forest Ecology, Soils and Restoration Online forestry decision-support tools Remote sensing for agriculture Adopting Digital Technologies in SME's
<b>Northwest Territories</b>	
<i>Aurora College</i>	Water Resources Wind Energy/Solar Energy Gas hydrates
<b>Nunavut</b>	
<i>Nunavut Arctic College</i>	Water Quality Studies Analyse wastewater
<b>Yukon</b>	
<i>Yukon College</i>	Biochar Water Purification Alternative Energies (Stirling engine, wind power, in river hydro, biomass) Mining Technologies all under the theme of cold climate innovations Climate change adaptation Technologies
<b>Environmental Science and Technologies- 173 Areas of Specialization</b> <b>Sciences et technologies environnementales - 173 domaines de spécialisation</b>	
<b>Province / College/collège</b>	<b>Area of Specialization / Domaine de spécialisation</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	Geo-Informatics Nanotechnology material design Petroleum Engineering Physical Sciences Interdisciplinary Sciences Material Sciences Environmental Science
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	Bioscience Energy Systems Engineering
<b>Nova Scotia / Nouvelle-Écosse</b>	
<i>Nova Scotia Community College</i>	Marine Geomatics Marine - Accounstics system trainer for SONAR Coastal Erosion Climate Change

	Flood risk mapping Land use planning & mapping GIS technologies GPS surveying & data collection Horticulture Sea floor mapping Applications of weather prediction tools (with over 80 weather stations) Remote sensing (Airborne & ground-based Lidar)
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Biotechnologies * Bioprocédés * Révision de plan de ferme environnemental. Centre de conservation des sols et de l'eau * Agroenvironnement, agroforesterie, agriculture de précision, cartographie et géomatique * Technologies pour la transformation des produits forestiers
<b>Québec</b>	
<i>Cégep de Chicoutimi</i>	Géomatique
<i>Cégep Garneau</i>	Sciences de l'environnement
<i>Cégep de Lévis-Lauzon</i>	Biotechnologies
<i>Collège Montmorency</i>	Entomologie Lutte intégrée Lutte biologique en agriculture Microbiologie
<i>Cégep régional de Lanaudière</i>	Agriculture Horticulture et transformation des aliments Développement durable Écoconception
<i>Cégep de Rivières-du-Loup</i>	Traitement des eaux usées Analyse de laboratoire Caractérisation des éléments Biométhanisation
<i>Collège Shawinigan</i>	Technologies de l'électrochimie et environnementale Technologies de séparation par membrane
<i>Cégep de Saint-Laurent</i>	Technologies de l'eau
<i>Cégep de Sherbrooke</i>	Lumière et technologies de l'éclairage Développement durable Environnement
<i>Cégep de Sorel-Tracy</i>	Écologie industrielle
<i>Cégep de Thetford</i>	Technologie en oléochimi industrielle
<i>Cégep de Trois-Rivières</i>	Bio et nano-technologies
<i>Cégep de Victoriaville</i>	Développement durable Agriculture biologique
<b>Ontario</b>	
<i>Algonquin College</i>	Biotechnology Water and Wastewater Riparian Health Eel Research

	Geographic Information Systems Environmental Technologies
<i>Collège Boréal</i>	Environment Biocharbon
<i>Cambrian College</i>	Environmental Assessment Impact Monitoring (Mining related) Chemistry Testing and Validation
<i>Canadore College of Applied Arts and Technology</i>	Environmental Assessment Biotechnology
<i>Centennial College</i>	Environmental Science and Technologies Sustainable Energy Technology
<i>Conestoga College Institute of Technology and Advanced Learning</i>	Environment
<i>Confederation College</i>	Remote Sensing
<i>Durham College</i>	Science and Technology - chemical, mechanical, PLC
<i>Fanshawe College</i>	Environment Sustainable buildings/structures and liveable communities
<i>Fleming College</i>	Water and Wastewater Treatment Technology
<i>Georgian College</i>	Environmental Port Development Electric Vehicles and their impact on the power grid
<i>Humber College Institute of Technology and Advanced Learning</i>	Butternut Tree Preservation
<i>La Cité</i>	Technologies environnementales Centre de recherche appliquée en biovalorisation Biotechnologie
<i>Lambton College</i>	Optimization and Control * Water & Wastewater *
<i>Loyalist College</i>	CO2 Extraction
<i>Niagara College</i>	Environmental Management Agriculture & Environment GIS
<i>Sault College</i>	Environmental Technologies GIS Natural Environment
<i>Sheridan College Institute of Technology</i>	Energy Management
<i>Seneca College</i>	Environment Economic Sustainable Development Biological and Applied Sciences
<i>St. Lawrence College</i>	Biotechnology
<b>Manitoba</b>	
<i>Assiniboine Community College</i>	Environmental Management Land and Water Management Geomatics



<i>Red River College of Applied Arts, Science &amp; Technology</i>	Sustainable Infrastructure Clean Technology *
<i>University College of the North</i>	Water & wastewater management Wildlife and fisheries management Indoor air pollution & control
<b>Saskatchewan</b>	
<i>Gabriel Dumont Institute of Native Studies &amp; Applied Research</i>	Traditional lands, peoples and lifestyles of the Metis
<i>Saskatchewan Polytechnic</i>	Environment Urban Development
<b>Alberta</b>	
<i>Grande Prairie Regional College</i>	Pollution to Products (P2P carbon capture) Climate Change
<i>Grant MacEwan University</i>	Detection, Tracing & Destruction of Antibiotics and Hormones Biowaste
<i>Keyano College</i>	Environmental Sciences Environmental Amphibian health in the oil sands Seed collection for indigenous plants used for oil sands reclamation
<i>Lakeland College</i>	Environmental Agriculture technologies, both crops and livestock Establishment of an area to native prairie grassland
<i>Lethbridge College</i>	Environment and Ecology Environmental sustainability with particular emphasis on aquatic including aquaculture, aquaponics and algae Water Quality
<i>Medicine Hat College</i>	Water Resources Environmental
<i>Northern Alberta Institute of Technology (NAIT)</i>	Boreal Forest Reclamation Green Roofs Technology Watershed Habitat Management and Improvement
<i>Olds College</i>	Solid Waste Management Bioremediation and Reclamation Waste Water Treatment Watershed Assessment and Reclamation Agri-food Composting Sustainable Waste Management Turfgrass Wetlands and Water Quality Water Quality and Treatment Land and Water Reclamation
<i>Red Deer College</i>	Environment and Ecology Animal - vehicle collisions Human-Animal (Bear) Interactions
<i>SAIT Polytechnic</i>	Green Building Technology PCB Soil Remediation * Environmental Technology - Water, Air and Soil Treatment and Remediation

British Columbia / Colombie-Britannique	
<i>British Columbia Institute of Technology</i>	Environment GIS/Geomatics Green Roof Technology Mathematical Modelling of Developmental Biology
<i>Camosun College</i>	Food Beverage Cosmetic Environmental Functional Food Testing and Development
<i>Douglas College</i>	Biology - Pest Management Geology
<i>Kwantlen Polytechnic University</i>	Sustainable Horticulture Sustainable Agriculture Design Thinking Materials Innovation
<i>North Island College</i>	Sustainable Aquaculture Wireless Sensor Technology
<i>Northwest Community College</i>	Marine/Environmental Environmental Research
<i>Okanagan College</i>	Air and soil temperatures Water conditions and conservation Sediment transport around static structures in environments Scour model development Development of a natural history collection of birds, mammals, reptiles, amphibians, fish, insects, and herbarium Mathematical techniques in river stability problems Using the synthesis telescope at DRAO to observe the interaction regions between old planetary nebulae and the interstellar medium
<i>Selkirk College</i>	Geographic Information Systems Fisheries sensitive watersheds Long term soil productivity Glacier and snow research White-bark pine research Environmental Sustainability and Geospatial Science
Northwest Territories	
<i>Aurora College</i>	Permafrost Carbon Air Quality Vegetation/Reclamation Neutron Monitors Northern Agriculture
Nunavut	
<i>Nunavut Arctic College</i>	Biological
Yukon	
<i>Yukon College</i>	Permafrost Assessments

	<p>Mine soil and water remediation</p> <p>Geophysical Hazards</p> <p>Climate Change</p>
<b>Health, Medical and Life Sciences - 163 Areas of Specialization</b> <b>Sciences de la santé et de la vie et science médicale - 163 domaines de spécialisation</b>	
<b>Province / College/collège</b>	<b>Area of Specialization / Domaine de spécialisation</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	<p>Entomology</p> <p>Health</p>
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	<p>Health</p> <p>Food Product Development</p> <p>Advanced Care Paramedicine</p>
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	<p>Centre pré-commercial de technologies en bioprocédé: analyses spécialisé, élaboration des boissons alcoolisées, évaluation pré-commerciale de concepts, précédés de bio-raffinage (fermentation, hydrolyse, purification)</p> <p>Laboratoire d'aquaculture expérimentale: collaboration à un programme de recherche visant la commercialisation de l'Omble chevalier.</p> <p>Unité de simulation en technologies routières: collaboration à un programme de recherche visant à aider les conducteurs professionnels à mieux comprendre l'impact de leur tâche sur leur santé, avec l'aide d'un laboratoire mobile comprenant un simulateur de conduite et des appareils de mesure biopsychologiques.</p>
<i>New Brunswick Community College - Saint John</i>	Innovation in healthcare
<b>Nova Scotia / Nouvelle-Écosse</b>	
<i>Nova Scotia Community College</i>	<p>Medical Assistive Technologies</p> <p>Marine - Acoustics system trainer for SONAR</p>
<b>Québec</b>	
<i>Cégep Garneau</i>	Recherches en technique de soins dentaires
<i>Cégep régional de Lanaudière</i>	Transformation des aliments
<i>Cégep de Lévis-Lauzon</i>	Bio-technologies
<i>Collège Mérici</i>	Solutions technologiques en orthèses et prothèses
<i>Cégep de Sherbrooke</i>	Mannequins simulateurs
<i>Cégep de Victoriaville</i>	Santé globale et saines habitudes de vie
<b>Ontario</b>	
<i>Algonquin College</i>	<p>Health and Wellness</p> <p>Medical Assistive and Analytical Devices</p> <p>Food Research</p> <p>Brain and Vision Research</p>
<i>Collège Boréal</i>	Biomédicale
<i>Cambrian College</i>	<p>Nursing practices and procedures</p> <p>Medical Laboratory testing and validation</p> <p>Medical Supply and Services</p>
<i>Canadore College of Applied Arts and Technology</i>	<p>Health Sciences</p> <p>Mental Health</p> <p>Client Care</p> <p>Geriatrics</p>

<i>Centennial College</i>	Health Sciences Emergency & Disaster Preparedness Health & related life sciences and technologies
<i>Conestoga College Institute of Technology and Advanced Learning</i>	Health Informatics Seniors' Care Food Safety
<i>Confederation College</i>	Health and related life sciences and technologies Improving Health Treatment Health Care Delivery (prevention/wellness) in small, rural, remote communities
<i>Durham College</i>	Health Sciences
<i>Fanshawe College</i>	Health & Human Services Nursing
<i>Fleming College</i>	Health sciences areas focuses on healthy aging
<i>George Brown College</i>	Nursing Health Services Health Information Health Recipe Development Prosthetics Orthotics Nutrition and Health Promotion (recipe development, scaling up for industrial production, health ingredient alternatives) Culinary Arts and Food Product Development Health Technologies
<i>Humber College Institute of Technology and Advanced Learning</i>	Clinical Health Applied Nutrition Healthy Living Centre Health & Wellness
<i>La Cité</i>	Biotechnologie * Agro-alimentaire
<i>Lambton College</i>	Health and Wellness Mental Health Nursing Public Safety
<i>Mohawk College</i>	Health Informatics Mobile Health Applications Health Sciences Nursing Lab and Applications Health Care (Including eHealth and mHealth) Mobility
<i>Niagara College</i>	Health & Community Studies Food, Beverage Innovation
<i>Northern College</i>	Companion animal rehabilitation, nutrition and wellness Wildlife rehabilitation Telemedicine
<i>Sault College</i>	Health Sciences
<i>Seneca College</i>	Health and Community Studies

<i>Sheridan College Institute of Technology and Advanced Learning</i>	Population aging and elder care
<i>St. Clair College</i>	Bio-medical engineering
<i>St. Lawrence College</i>	Nursing Biotechnology Culinary Health Science
<b>Manitoba</b>	
<i>Red River College of Applied Arts, Science &amp; Technology</i>	Health & Nutrition Sciences
<i>University College of the North</i>	<i>Health</i> <i>Midwifery</i> <i>Nursing - linking teaching to clinical Diabetes in northern Manitoba</i>
<b>Saskatchewan</b>	
<i>Gabriel Dumont Institute of Native Studies &amp; Applied Research</i>	Traditional medicines and uses of natural resources: flora, fauna, land
<i>Saskatchewan Polytechnic</i>	Health Education BioScience Nursing Chemical Technology
<b>Alberta</b>	
<i>Bow Valley College</i>	Health Workforce Development and Deployment
<i>Grande Prairie Regional College</i>	Neuroscience Seasonal affective disorder Nursing Program (teaching and learning strategies)
<i>Grant MacEwan University</i>	Nursing Psychology
<i>Lethbridge College</i>	Patient simulation
<i>Medicine Hat College</i>	Health EMS Training Methods
<i>Mount Royal University</i>	Health and Wellness
<i>Northern Alberta Institute of Technology (NAIT)</i>	Health Sciences Health Simulation Technology Health and Wellness Occupational Fitness Health Innovations
<i>NorQuest College</i>	Health Care Continuing Care
<i>Olds College</i>	Apparel Innovation and Safety
<i>SAIT Polytechnic</i>	Sports and Wellness Engineering Technology Medical device design and fabrication (Post-surgical boot and retractable safety-scalpel testing) Wheelchair basketball adjustable wheelchair for customized fit Sliding sport equipment design, fabrication and customization (skeleton, bobsleigh, luge, cross-country skiing) Sustainable Culinary Operations and Healthy Lifestyles
<i>Red Deer College</i>	Health Community of Practices Health & Wellness

	Rural Health Poly-Pharmacy Independent Living
<b>British Columbia/Colombie-Britannique</b>	
<i>British Columbia Institute of Technology</i>	Health - Herbal Analysis and Evaluation Health - Adaptive Technologies for People with Disabilities Health & Safety Health Technology Health Informatics Human Factors Bioscience and Human Health Aging and Disability Biotechnology Food Sciences Forensics Medical and Assistive Device Development Medical Imaging Mathematical Modeling of Developmental Biology Natural Health Products Optical Physics and Laser-Matter Interactions
<i>Camosun College</i>	Development of specialized sensor systems, testing and calibration of materials and Technology relatd to High Level Sports Performance Fitness and Health related applications
<i>Douglas College</i>	Therapeutic Recreation Child, Family and Community Studies Human Services Health Services
<i>Justice Institute of British Columbia</i>	Prehospital and Disaster Health Science Roles and boundaries of paramedicine Student resilience Stress assessment Disaster Management Education Simulation Psychosocial Health Care Community-based
<i>Langara College</i>	Epidemiological Research Functional & Physiological importance of torsion adapters in prosthetic limbs for transtibial amputees
<i>North Island College</i>	Food Security Mobile devices for Nursing and Health Education Health Sciences
<i>Selkirk College</i>	Health Care Delivery Health Care Education Occupational Health Applied Health & Wellness Research Educational capacity for a palliative approach to rural nursing Preparing RN students to wrtie the NCLEX exam research Scholarship of Teaching and Learning Research RN students leadership projects Worksite Health Promotion Research
<i>Vancouver Community College</i>	Health Sciences (Nursing, Dental Assisting)

	Artisan Breads and Gluten Sensitivities
<b>Northwest Territories</b>	
<i>Aurora College</i>	Nutrition and Health Promotion Food Security
<b>Nunavut</b>	
<i>Nunavut Arctic College</i>	Health
<b>Yukon</b>	
<i>Yukon College</i>	Food Security
<b>Information and Communication Technologies - 135 Areas of Specialization Technologies de l'information et de la communication - 135 domaines de spécialisation</b>	
<b>Province / College/collège</b>	<b>Area of Specialization / Domaine de spécialisation</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	Nano Technology Geo-informatics Digital Animation
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	Computer Information technologies
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Technologies de l'information et des communications
<i>New Brunswick Community College</i>	Gaming Technology Journalism ICT Mobile First Technology
<b>Nova Scotia / Nouvelle-Écosse</b>	
<i>Nova Scotia Community College</i>	Data acquisition systems Data communication systems Data management and design
<b>Québec</b>	
<i>Collège Ahunistic</i>	Communications graphiques et d'imprimabilité
<i>Cégep André-Laurendeau</i>	Optique et photonique
<i>Cégep de Chicoutimi</i>	Géomatique
<i>Dawson College</i>	Adapttech - Technologies for Persons with Disabilities Integrating Interactive Technologies and Pedagogies
<i>Cégep de Drummondville</i>	Sonorisation
<i>Cégep de la Gaspésie et des Îles</i>	Formation à distance en ingénierie
<i>Cégep John-Abbott College</i>	Optique et photonique
<i>Cégep de Jonquière</i>	Communications Littérature numérique
<i>Collège Lionel-Groulx</i>	Microélectronique
<i>Cégep de la Pocatière</i>	Optique et photonique
<i>Cégep régional de Lanaudière</i>	Design industriel
<i>Cégep de Sherbrooke</i>	La productique et les technologies numérique
<i>Cégep de Sainte-Foy</i>	Imagerie numérique et médias interactifs Cybersécurité
<i>Cégep de Trois-Rivières</i>	Télécommunications sans fil Intégration des TIC dans l'enseignement
<i>Cégep de Victoriaville</i>	Les Technologies de l'information et des communications

Ontario	
<i>Algonquin College</i>	Photonics Design of Virtual Environments Information and Communication Technologies (ICT) Digital Technology Adoption Gamification Developing Business Systems for SMEs User Experience Design Wireless
<i>Collège Boréal</i>	La programmation et les réseaux Le sommeil
<i>Cambrian College</i>	Electrical Instrumentation Application development and integration
<i>Canadore College</i>	Digital Media Mobile Computing
<i>Confederation College</i>	E-Business
<i>Centennial College</i>	Information and Communication Technologies - Wireless Networking, ICET, Gaming and Animation
<i>Conestoga College Institute of Technology and Advanced Learning</i>	Telecommunications Technology Development / Application Development
<i>Durham College</i>	Media Art and Design Animation / IT Scheduling tools Development of databases and mobile applications IT / Web Applications
<i>Fanshawe College</i>	Advanced Media Digital, Interactive Multimedia/New Media and ICT
<i>George Brown College</i>	Digital Media Design Information, Communication Technologies
<i>Georgian College</i>	Product, Prototype and Process * Maritime and Marine Simulations *
<i>Humber College Institute of Technology and Advanced Learning</i>	Applied Technology Game and Application Development Music Technology Hearing Technology
<i>La Cité</i>	Multimédia Technologies de l'information et sécurité des systèmes Design écologique
<i>Lambton College</i>	Mobile Device Application Development Data base design and services
<i>Mohawk College</i>	Mobile Technology Electronic Health Records eHealth Infrastructure Software
<i>Niagara College</i>	Data Management and Visualization Technology (photonics, electronics, energy) Computer Programming



	Computational Agriculture & Remote Sensing Digital Media and Information Technologies
<i>Northern College</i>	Systems analysis and design Digital technology adoption analysis Simulation
<i>Sault College</i>	Information Technology and Communication Programming and application development
<i>Seneca College</i>	New Media/Digital Media Information & Communication Technologies Open Source Software Development Computer Studies Game Development Animation
<i>Sheridan College Institute of Technology and Advanced Learning</i>	Digital media - Gaming High Performance Computing Visualization & simulation 2D and 3D Stereoscopic and high frame rate (HFR) capture and display / Previsualization and Virtual Production for Screen Industries Mobile Computing Applications
<b>Manitoba</b>	
<i>Assiniboine Community College</i>	Wireless Technology Telecommunications Technology Communications Engineering Technology
<i>Red River College of Applied Arts, Science &amp; Technology</i>	Information and Communications Technology, including digital multimedia
<b>Saskatchewan</b>	
<i>Saskatchewan Polytechnic</i>	Information Technology and Communication
<b>Alberta</b>	
<i>Grande Prairie Regional College</i>	Technology Commercialization
<i>Keyano College</i>	Online Learning Systems
<i>Medicine Hat College</i>	3D Printing and Laser Scanning
<i>Mount Royal University</i>	Wb 2.0 Technologies
<i>NorQuest College</i>	Print Media
<i>Northern Alberta Institute of Technology (NAIT)</i>	Nanotechnology Simulation and Gaming Sensor Design & Systems Integration Electronic Prototyping
<i>SAIT Polytechnic</i>	UHF RFID inventory management tags, hardware & software Unmanned Aerial Vehicle application Wireless communications Smart control thermostats SmartPhone vending machine purchases Nt-Zero Energy Home systems monitoring and automation SmartSkate wireless infrastructure and data collection/management system Sensors and Automation Animal Tracking and Recording
<b>British Columbia/Colombie-Britannique</b>	

<i>British Columbia Institute of Technology</i>	Digital Learners in Higher Education Forensics Information Technology Information Technology Smart MicroGrid/Intelligent Micro Grid Evolving Technology Wireless Sensor Systems
<i>Camosun College</i>	Sensor Development* Adaptive Technologies
<i>Justice Institute of British Columbia</i>	Student use of technology
<i>College of New Caledonia</i>	Trades & Technologies Satellite-based communication systems
<i>North Island College</i>	Remote Web-based Science Lab
<i>Okanagan College</i>	iPads as language learning tools How mobile devices and online intelligence tools are used in scenarios The connections among media, transnationalism and social cohesion
<i>College of the Rockies</i>	Internal Tracking of Students Program Review Data
<i>Selkirk College</i>	Digital Basin Portal Project Higher-level plan reporting suite (forestry) project Adopting Digital Technologies for SME's projects *
<b>Northwest Territories</b>	
<i>Aurora College</i>	Public access technology
<b>Nunavut</b>	
<i>Nunavut Arctic College</i>	Geomagnetic
<b>Yukon</b>	
<i>Yukon College</i>	Software application development
<b>Manufacturing, Building Technology and Other - 175 Areas of Specialization</b> <b>Fabrication et technologies du bâtiment - 175 domaines de spécialisation</b>	
<b>Province / College/collège</b>	<b>Area of Specialization / Domaine de spécialisation</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	Manufacturing Engineering Innovative Product Development Alternative Energy Solutions Materials Engineering Technology
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	Metallurgy Precision Machining Underwater Welding
<b>Nova Scotia / Nouvelle-Écosse</b>	
<i>Nova Scotia Community College</i>	Mechanical Engineering Additive manufacturing (laser metal sintering) Design engineering and rapid prototyping Advanced Welding Machining (computer numerical control) Computer aided design HVAC

	Building monitoring systems Engineered Technologies
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Le prototypage mécanique Transformation des métaux et soudure Technologies de la production des métaux Technologies d'assemblage et de soudure avancées Simulation de transport routier
<i>New Brunswick Community College</i>	Non-destructive testing Welding Technology
<b>Québec</b>	
<i>Cégep de l'Abitibi-Témiscamingue</i>	Technologies des résidus industriels
<i>Cégep André-Laurendeau</i>	Logistique du transport *
<i>Cégep Beauce-Appalaches</i>	Mécanique industrielle
<i>Collège Édouard-Montpetit</i>	Technologies de l'aérospatiale
<i>Cégep de Jonquière</i>	Production automatisée
<i>Collège Lasalle</i>	Mode
<i>Cégep de Lévis-Lauzon</i>	Robotique et de vision industrielle
<i>Collège de Maisonneuve</i>	Procédés chimiques Technologies des emballages et du génie alimentaire
<i>Cégep Marie-Victorin</i>	Habillement
<i>Cégep de la Pocatière</i>	Technologie physique Électronique, Laser, Électromécanique et Informatique
<i>Cégep régional de Lanaudière</i>	Design industriel durable Objet intelligent Innovation ouverte
<i>Cégep de Rimouski</i>	Innovation maritime
<i>Cégep de Saint-Jérôme</i>	Transport avancé Conception de systèmes électriques, mécaniques et mécatroniques, le prototypage, l'instrumentation le contrôle, la certification et les essais Développement des composites Matériaux composites thermosensibles en aéronautique, énergie, génie civil et secteur industriel
<i>Cégep de Sainte-Hyacinthe</i>	Technologies textiles, géosynthétiques et matériaux souples
<i>Cégep des Sept-Îles</i>	Maintenance industrielle
<i>Cégep de Sherbrooke</i>	Production et fabrication intégrées
<i>Cégep de Sorel-Tracy</i>	Technologie en écologie industrielle
<i>Cégep de Trois Rivières</i>	Production des métaux Produits celluloseux
<i>Cégep de Victoriaville</i>	Technologie meuble et bois ouvré
<b>Ontario</b>	
<i>Algonquin College</i>	Mechanical Engineering Building Analytics Enhancing collaboration through Digital tools Building Safety Electrical Engineering Technology Construction and Building Sciences Civil Engineering

<i>Collège Boréal</i>	Génie électronique Mécanicien de machinerie lourde Génie civil et minier
<i>Cambrian College</i>	Mining Supply and Services Heating, Ventilation and Air Conditioning Automation * Carpentry Advanced Welding and Fabrication Civil Engineering
<i>Canadore College</i>	Aviation Advanced Composites Advanced Manufacturing
<i>Centennial College</i>	Engineering Technology Prototype Design and Development Aerospace Technologies
<i>Conestoga College Institute of Technology and Advanced Learning</i>	Advanced Manufacturing Product Enhancement Smart Manufacturing Food Technology Engineering and Engineering Technology
<i>Confederation College</i>	Advanced Manufacturing Prototyping
<i>Durham College</i>	Manufacturing Electronics Mechatronics Robotics Agricultural Equipment Engineering Technology
<i>Fanshawe College</i>	Advanced Manufacturing Product Validation
<i>George Brown College</i>	Construction Management and Trades Advanced Product Development and Manufacturing Green Building (sustainable construction, building automation and building information modeling)
<i>Georgian College</i>	Product, Prototype and Process Development * Maritime and Marine Simulation *
<i>Humber College Institute of Technology and Advanced Learning</i>	Prototype Development Engineering Technology and Design
<i>La Cité</i>	Building Technology Engineering Technology Construction Structure et matériaux
<i>Lambton College</i>	Advanced Extrusion Process Identification and Control Additive Manufacturing 3D Printing Process Control and Optimization and Simulation Advanced Materials Development
<i>Mohawk College</i>	Energy Technologies

	Engineering Industry Projects Advanced Materials/Manufacturing
Niagara College	Mechanical Engineering Technology Advanced Manufacturing
Northern College	Cold Weather testing
Sault College	Manufacturing Engineering and Technology Industrial Automation and robotics Electrical Automation and Mechanical
Seneca College	Aviation Manufacturing Robotic Systems Prototype Development Machining-conventional and CNC Tool Design Product Development Simulation / Modeling
Sheridan College Institute of Technology & Advanced Learning	Manufacturing & Design Technologies Advanced Manufacturing & robotics
St. Clair College	Manufacturing Materials
St-Lawrence College	Small Manufacturing including software
<b>Manitoba</b>	
Assiniboine Community College	Motive Trades
Red River College of Applied Arts, Science & Technology	Advanced Design and Manufacturing (including Aerospace) Sustainable Infrastructure *
<b>Saskatchewan</b>	
Saskatchewan Polytechnic	Architectural Technologies
<b>Alberta</b>	
Grande Prairie Regional College	Innovation Services (Technology Commercialization of Client-driven R&D)
Lethbridge College	Sustainable building practices
Medicine Hat College	Power Engineering Technology
Northern Alberta Institute of Technology	Product Development and Prototyping Productivity Improvement Robotics, Automation and Autonomous Vehicles Sustainable building and urban ecological design NanoCARTS Environmental Management
Red Deer College	Advanced Manufacturing Prototyping & proof of concept fabrication Design Engineering Project Management
SAIT Polytechnic	Net-Zero Energy Home construction Roof-top greenhouse optimization Roof-top beekeeping facilities and procedures Rain-weather harvesting, filtration and reuse Roof-top gardens/greenroofs

	Building integrated renewable energy and alternative energy - solar photovoltaic and solar thermal research, collection, storage, design, installation and operation Advanced wall assemblies Building envelope prototypes and testing Skate lace extender Market assessment Rapid prototyping Independent product testing
<b>British Columbia/Colombie-Britannique</b>	
<i>British Columbia Institute of Technology</i>	Housing and Construction Building Science (Whole Building Performance) Energy, Manufacturing and Transportation Civil Engineering Construction Management Fish, Wildlife and Recreation The Rivers Institute GIS / Geomatics Green Roof Technology Infrastructure Management Sustainable and Environmental Initiatives Sustainability, Infrastructure and Transportation Economics Housing and Construction
<i>Camosun College</i>	Clothing and Textiles Advanced Manufacturing & Prototyping Additive Manufacturing Prototype Design and development Automation and robotic
<i>Justice Institute of British Columbia</i>	Critical infrastructure
<i>Kwantlen Polytechnic University</i>	Technical Apparel (Emerging Area) Design Thinking * Materials Innovation *
<i>College of New Caledonia</i>	LED lighting systems for greenhouse applications
<i>Okanagan College</i>	Building information modeling to enhance productivity
<i>Vancouver Community College</i>	Transportation Trades
<b>Northwest Territories</b>	
<i>Aurora College</i>	Permafrost and Infrastructure
<b>Yukon</b>	
<i>Yukon College</i>	Cold Climate Construction (housing, HRV, energy inventories and audits) Construction Permafrost and Linear Infrastructure
<b>Social Innovation - 214 Areas of Specialization</b> <b>Innovation sociale - 214 domaines de spécialisation</b>	
<b>Province / College/collège</b>	<b>Area of Specialization / Domaine de spécialisation</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	Social Science and Humanities Interdisciplinary Research
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	Early Childhood Education

	Teaching and Learning Social Innovation Essential Skills
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Compétences essentielles au travail Étudiants à besoins spéciaux
<i>New Brunswick Community College</i>	Advanced Learning Technologies Entrepreneurship Social Innovation Teaching, learning and Services for students Aboriginal Learning
<b>Québec</b>	
<i>Cégep André-Laurendeau</i>	Pédagogie Enseignement et apprentissage
<i>Collège Dawson</i>	Inclusion scolaire et professionnelle des étudiants en situation de handicap Pedagogical research and innovation
<i>Cégep Édouard-Montpetit</i>	Éducation
<i>Cégep Garneau</i>	Interculturalisme
<i>Cégep de la Gaspésie et des Îles</i>	Aide au développement durable
<i>Cégep Héritage</i>	Pedagogical / learning
<i>Cégep de Jonquière</i>	Conditions de vie, la santé et les aspirations des jeunes Pratiques psychomotrices chez les 0-107 ans Persévérance scolaire Éducation à l'enfance
<i>Collège de Maisonneuve</i>	Intégration professionnelle des immigrants
<i>Cégep Marie-Victorin</i>	Pédagogie Sciences sociales
<i>Collège Montmorency</i>	Education, pédagogie en enseignement supérieur Inclusion étudiants en situation de handicap Conception universelle des apprentissages Intégration professionnelle des personnes immigrantes
<i>Cégep de l'Outaouais</i>	Sciences sociales Innovation sociale Recherche pédagogique Littérature
<i>Cégep régional de Lanaudière</i>	Économie sociale et solidaire Engagement communautaire et citoyen Pratiques éducatives innovantes Enseignement et apprentissage Éducation
<i>Cégep de Rivière-du-Loup</i>	Innovation ouverte living-lab
<i>Collège de Rosemont</i>	Responsabilité sociale et écocitoyenneté
<i>Cégep de Saint-Laurent</i>	Recherche - création et médiation culturelle
<i>Cégep de Sherbrooke</i>	Recherche en Éducation
	Pédagogie de l'enseignement supérieur Mentorat et insertion professionnelle Economie sociale et solidaire Minorités et inclusion sociale

<i>Cégep de Trois-Rivières</i>	Réussite éducative
<i>Vanier College</i>	Pedagogical and some basic research
<i>Cégep de Victoriaville</i>	Pratiques sociales novatrices en agriculture et en agroalimentaire Enseignement et apprentissage
<i>Cégep du Vieux-Montréal</i>	Inclusion scolaire et professionnelle des étudiants en situation de handicap
<i>Institut de tourisme et d'hôtellerie du Québec</i>	Technologies Service Satisfaction de la clientèle Évaluation des produits Santé en restauration Gestion entreprise HRI
<b>Ontario</b>	
<i>Algonquin College</i>	Interprofessional Education Devices for people with disabilities Marketing Research Entrepreneurship Digital Technology development for not-for-profits Marketing
<i>Collège Boréal</i>	La relation de ventes et l'architecture d'intérieur
<i>Centennial College</i>	Emergency & Disaster Preparedness Teaching and Learning
<i>Conestoga College Institute of Technology and Advanced Learning</i>	Business Academic Development: Innovation with Technology Entrepreneurship Human Resource Development: Interprofessional Practice and Role Development
<i>Confederation College</i>	Aboriginal Learning
<i>Durham College</i>	Self Advocacy for Students with Disabilities (delivered by Centre for Students with Disabilities CSD) Outcomes-based measurement Scholarship of Teaching and Learning Social Services to support at-risk populations (e.g. young parents, crown wards, at-risk high school students)
<i>Fanshawe College</i>	Business & Entrepreneurship Student success, teaching and learning and vulnerable/under-represented groups Social Innovation
<i>George Brown College</i>	Emergency Management
<i>Humber College Institute of Technology and Advanced Learning</i>	Interprofessional Education Effective Advertising Early Childhood Education Business Development and Market Research Entrepreneurism, Social Innovation Outdoor learning and classrooms (natural playgrounds in the Early Childhood Education Program)
<i>Lambton College</i>	Social Enterprise Fire and Public Safety
<i>Mohawk College</i>	Service
<i>Niagara College</i>	Business & Commercialization Solutions Hospitality & Tourism
<i>Seneca College</i>	Competitive Intelligence/ Market Intelligence Research Simulation in Aviation Training



	Teaching & Learning Financial Services Big Data and Business Analytics Advanced Instrumental Analysis Finite Element Analysis Educational Effectiveness
<i>Sheridan College Institute of Technology &amp; Advanced Learning</i>	Securities Social Innovation
<i>St. Lawrence College</i>	Applied Behavioural Analysis Training Methods Business Behavioural Psychology
<b>Manitoba</b>	
<i>College Universitaire de Saint-Boniface</i>	Éducation Langue et Culture Sciences humaines et sociales Administration des affaires
<i>Red River College of Applied Arts, Science &amp; Technology</i>	The Science of Early Child Development (SECD) Social Sciences
<i>University College of the North</i>	Social Sciences and Humanities Education Urban poverty & marginalized populations Homelessness in northern Manitoba Cree language revitalization Early childhood literature Land-based education Aboriginal Language and Culture
<b>Saskatchewan</b>	
<i>Gabriel Dumont Institute of Native Studies</i>	Needs assessments for Metis education, best practices, impact of education and training on Metis, and thus the province Research on missing or absent pieces of Canada's history as well as Metis perspectives
<i>Saskatchewan Polytechnic</i>	Scholarly Activities
<b>Alberta</b>	
<i>Bow Valley College</i>	Aboriginal Advancement Essential Skills Curriculum Design and Delivery Strategies Support for Distance and Online Learners Literacy and Language Training Advancement of Immigrants Teaching and Learning Social Policy Foundational Learning & Assessment
<i>Grant MacEwan University</i>	Business
<i>Keyano College</i>	Teaching and Learning Innovation Lives of the working poor of Fort McMurray
<i>Lakeland College</i>	Social Innovation (teaching and learning, leadership, entrepreneurship, economic development)

	Firefighting and Emergency Medicine Emergency Services
<i>Lethbridge College</i>	Behavioural Aspects of Worker Safety Public Opinion Polling English as a Second Language Workplace safety focusing on driving safety
<i>Mount Royal University</i>	Justice
<i>Medicine Hat College</i>	Community Development
<i>NorQuest College</i>	Workplace Intercultural Communication, Immigrant Integration (English to Workplace EWP) Supports and Services for Students with Disabilities Aboriginal Learning and Evaluation Aboriginal Literacy Business and Industry Scholarship of Teaching and Learning Community and Social Innovation
<i>Northern Alberta Institute of Technology (NAIT)</i>	Corporate Social Responsibility Sustainable Economic Development Entrepreneurship and Capital Wealth Management
	Scholarship Teaching and Learning Leadership and talent Hospitality Industry
<i>Portage College</i>	Scholarship of Teaching and Learning
<i>Red Deer College</i>	Human-Animal (bear) Interactions
<i>SAIT Polytechnic</i>	SPIN Farming Construction industry transformation
<b>British Columbia/Colombie-Britannique</b>	
<i>British Columbia Institute of Technology</i>	Learning & Teaching Digital Learners in Higher Education Business Analytics Human Capital Sustainability Infrastructure Transportation Economics Forensics
<i>Camosun College</i>	Human Factors Analysis
<i>Douglas College</i>	Social Sciences, Arts and Humanities Business Pedagogy (Teaching and Learning)
<i>Justice Institute of British Columbia</i>	Public Safety and Security Decision-making in Emergency Operations Emergency management Disaster resilience planning Bona fide occupational requirements Psychosocial Simulation Exercises, Scenarios, Injects Simulation and Applied Learning Practitioner Research
<i>Kwantlen Polytechnic University</i>	Education impacts Psychology Social Sciences At Risk Populations Food Security

	Food Self-Reliance Reducing Unsustainability Creating Sustainability Community Engaged Research
<i>Langara College</i>	Research Racially Connected Gang Violence Social Science Research Literary and Social History Research
<i>College of New Caledonia</i>	Business
<i>North Island College</i>	Homelessness & Housing Local Food Security Distance Education Community Based Research Youth Justice Initiatives
<i>Okanagan College</i>	Examination of linkage between ethics and security in the theorizing and implementation of Canadian foreign policy Examination of information literacy programs and high school to post-secondary transition programs in academic institutions in Canada, the US, Wales and England Examine the arc of the born criminal theory Social entrepreneurship
<i>College of the Rockies</i>	Labour Market
<i>Selkirk College</i>	Rural Development Institute and Regional Innovation Chair Scholarship of Teaching and Learning Sustainable Community Development Employment Lands Research Business Retention and Expansion Research Digital Basin portal and Indicators research Adopting Digital Technologies for SME's * Rural Development Trends Analysis and Knowledge Mobilization projects State of the Environment project Internationalization of the College Indigenizing Course Materials and Curriculum
<i>Vancouver Community College</i>	Language Studies (English as a second language) Scholarship of Teaching and Learning
<b>Nunavut</b>	
<i>Nunavut Arctic College</i>	Social Science
<b>Yukon</b>	
<i>Yukon College</i>	Sustainable development of Arctic natural resources Cambridge Bay energy Project Yukon health and wellness

### APPENDIX / ANNEXE 3

#### 2013-2014 Applied Research Environmental Scan / Enquête sur les activités de recherche appliquée 2013-2014 Research Centres and Specialized Laboratories by Category and Province/Territory / Centres de recherche et laboratoires spécialisés, par catégorie et province/territoire

Natural Resources and Energy - 128 Research Centres Ressources naturelles et énergie - 128 centres de recherche	
Province/ College/ Collège	Research Centre / Centre de recherche
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	Petroleum Specialty Centre Applied Mineralogy Lab Wave Energy Research Centre Geospatial Research Facility at Corner Brook Campus
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	Wind Energy Turbine Facilities and Labs
<b>Nova Scotia / Nouvelle-Écosse</b>	
<i>Nova Scotia Community College</i>	Applied Energy Research Lab Applied Oceans Research Lab Nautical Institute (Simulated ship navigation and propulsion technologies) School of Fisheries
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Centre de conservation des sols et de l'eau de l'est du Canada Centre pré-commercial de technologies en bioprocédés
<b>Nova Scotia / Nouvelle-Écosse</b>	
<i>Nova Scotia Community College</i>	Energy Research Lab Nautical Institute (Simulated ship navigation and propulsion technologies) School of Fisheries
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Centre de conservation des sols et de l'eau de l'est du Canada Centre pré-commercial de technologies en bioprocédés
<b>Québec</b>	
<i>Collège d'Alma</i>	Agrinova - Recherche et innovation en agriculture
<i>Cégep de Baie-Comeau</i>	Centre d'expérimentation et de développement en forêt boréale (CEDFOB)
<i>Cégep François-Xavier-Garneau</i>	Centre de démonstration en sciences physiques (CDSP)
<i>Cégep de la Gaspésie et des Îles</i>	Technocentre éolien Merinov - Centre d'innovation de l'aquaculture et des pêches du Québec
<i>Cégep de Jonquière</i>	Chaire de recherche du rendement énergétique (TERRE) Chaire de recherche industrielle en technologies des énergies renouvelables et rendement énergétique
<i>Cégep de l'Outaouais</i>	Le Laboratoire en Énergie Durable du Cégep de l'Outaouais (LÉDCO) Réseau interordre en énergie durable du Québec (RIED)
<i>Cégep Rivière-du-Loup</i>	Laboratoire de biométhanisation
<i>Cégep de Rimouski</i>	Service de recherche et d'expertise en transformation des produits forestiers (SEREX)
<i>Cégep de Saint-Laurent</i>	Centres des technologies de l'eau (CTE)
<i>Cégep de Sainte-Foy</i>	Centre d'enseignement et de recherche en foresterie de Ste-Foy inc. (CERFO)
<i>Cégep de Sherbrooke</i>	Centre de recherche disciplinaire
<i>Cégep de Trois-Rivières</i>	Centre intégré de fonderie et de métallurgie (CIFM) Centre spécialisé en pâtes et papiers (CSPP) Le Centre interdisciplinaire de perfectionnement pédagogique et de recherche en enseignement supérieur -Le groupe de recherche nature et génie
<i>Cégep de Victoriaville</i>	Centre d'expertise et de transfert en agriculture biologique et de proximité (CETAB+)
<i>Institut agro-alimentaire de La Pocatière</i>	Biopterre – Centre de développement des bioproduits
<b>Ontario</b>	
<i>Algonquin College</i>	Full Spectra Centre Hydro One Lab
<i>Cambrian College</i>	Glencore's Centre for Innovation
<i>Canadore College</i>	Simulation Lab
<i>Centennial College</i>	Centennial Energy Institute
<i>Confederation College</i>	BioEnergy Learning and Research Centre

<i>Fanshawe College</i>	Centre for Sustainable Energy & Environments (CSEE) Solar Simulator Solar Panels/Collection System Metrology Lab
<i>George Brown College</i>	Gemology Lab Rare earth metal working facilities
<i>Georgian College</i>	Alternative Energy Solutions Electrical and Power Distribution Great Lakes International Marine Training & Research Centre Solar Research Lab
<i>La Cité</i>	Laboratoire de biotechnologie
<i>Lambton College</i>	Alternative Energy Lab Lambton Water Centre Bluewater Technology Access Centre Centre of Excellence for Energy & Bio Technology Renewable Energy Conversion and Storage Research Material Testing Lab Hydrogen & Fuel Cell Lab Bio Analytical Lab Programmable Logic Controller (PLC) Automation Lab Power Generation Lab
<i>Mohawk College</i>	Power Systems Lab Advanced Power System Lab (APSL) Advanced Power Quality Lab (APQL) Hydro One Lab Clean and Renewable Lab
<i>Niagara College</i>	Wine and Viticulture Research Labs (temperature controlled refrigeration, chemistry lab, production tanks) Consumer Research Lab
<i>Northern College</i>	Hydro One Energy Centre Water/Wastewater Treatment Pilot Plants Diamond Drilling and Exploration Centre
<i>Sault College</i>	Wind Energy Electrical Process Automation Lab Water/Wastewater Treatment Pilot Plants Brookfield Power - Energy Motive Power Lab
<i>Seneca College</i>	Centre for the Built Environment and Civil Engineering Technology
<i>St. Lawrence College</i>	Centre for Sustainable Energy and Environments (CSEE) Sustainable Energy Applied Research Centre (SEARC)
<b>Manitoba</b>	
<i>Assiniboine Community College</i>	Solar and Conventional Greenhouse Sustainable Greenhouse Facility Irrigated Field Research Area
<i>Red River College of Applied Arts, Sciences &amp; Technology</i>	Advanced Transportation & Energy Research Centre/Electric Vehicle Technology & Education Centre Centre for Applied Research in Sustainable Infrastructure (CARSI)
<i>University College of the North</i>	Northern Manitoba Mining Academy Flin Flon Academic Teaching Labs
<b>Saskatchewan</b>	
<i>Parkland College</i>	Applied Research Farm
<i>Saskatchewan Polytechnic</i>	Natural Resources Applied Research
<b>Alberta</b>	
<i>Grande Prairie Regional College</i>	National Bee Diagnostic Centre - Technology Access Centre Pollutants to Products (P2P)
<i>Lakeland College</i>	Centre for Sustainable Innovation Livestock Research Facility Student Managed Farm Facilities Renewable Energy Cabin
<i>Lethbridge College</i>	Aquaculture Centre of Excellence

	Analytic Chemistry Hubbard Wildlife Collection
<i>Northern Alberta Institute of Technology (NAIT)</i>	NAIT Boreal Research Institute NAIT Applied Research Centre for Oil Sands Sustainability (NARCOSS)  Alternative Energy Centre
<i>Olds College</i>	Bio-Industry Resource Centre BioFuel Technology Centre BioProcessing Pilot Plant National Meat Training Centre Olds College Brewery Turner Research Centre Grow Safe Research Facility Plant Pathology Lab Seed Processing and Cleaning Lab Canadian Equine Centre for Innovation Prairie Turfgrass Research Centre
<i>SAIT Polytechnic</i>	Technology Mall - Chemical Analysis Lab Mobile Produced Water Treatment Trailer PCB Soil Remediation Trailer Environmental Enclosure Clean Energy Research Environemntal Enclosure Rooftop Beekeeping Facilities - 4 Hives Biodiesel Research Chemical Analysis Lab
<b>British Columbia / Colombie-Britannique</b>	
<i>British Columbia Institute of Technology</i>	Centre for Energy System Applications Smart MicroGrid Centre for Energy Education and Research (CEER) Technology Centre * Internet Engineering Lab (IEL)
<i>College of New Caledonia</i>	Research Forest
<i>Okanagan College</i>	Geography Lab
<i>Selkirk College</i>	Geospatial Research Centre
<b>Northwest Territories</b>	
<i>Aurora College</i>	Western Artic Research Centre Research Labs Warehouses
<b>Nunavut</b>	
<i>Nunavut Artic College</i>	Two Research Labs Nunavut Research Institute Wet Laboratories Cold Storage Warehouses
<b>Yukon</b>	
<i>Yukon College</i>	Reseach Lab (metal analysis) Cold Climate Water Purification Bioreactors
<b>Environmental Science and Technologies - 82 Research Centres Sciences et technologies environnementales - 82 centres de recherche</b>	
<b>Province/ College/ Collège</b>	<b>Research Centre / Centre de recherche</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	Geospatial Research Facility at Corner Brook Campus* Nanotechnology Lab
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	Bioscience Research Lab
<b>Nova Scotia / Nouvelle-Écosse</b>	
<i>Nova Scotia Community College</i>	Centre of Geographic Sciences Centre for the Build Environment Building Systems Lab Nautical Institute (Simulated ship navigation and propulsion technologies)* Applied Geomatics Research Group
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Centre de conservation des sols et de l'eau de l'est du Canada* Centre pré-commercial de technologies en bioprocédés*
<b>Québec</b>	

<i>Cégep de l'Abitibi-Témiscamingue</i>	Centre technologique des résidus industriels (CTRI)
<i>Collège Montmorency</i>	Institut de design et de développement des terres urbaines
<i>Cégep de l'Outaouais</i>	Laboratoire de Gestion des Écosystèmes pour le développement durable (LabGEDD) Le Laboratoire de modélisation et d'intelligence territoriale (LabMIT)
<i>Cégep régional de Lanaudière</i>	Centre d'expertise et de formation en technologies alimentaires (CEFTA) Centre d'expertise et de formation en design industriel (CEFdi)
<i>Cégep de Rivière-du-Loup</i>	Laboratoire de biométhanisation
<i>Collège Shawinigan</i>	Centre national en électrochimie et en technologies environnementales inc. (CNETE)
<i>Cégep de Sherbrooke</i>	Laboratoire spécialisé en Chimie Laboratoire spécialisé en Physique Laboratoire spécialisé en Biotechnologie
<i>Cégep de Sorel-Tracy</i>	Centre de transfert technologique en écologie industrielle (CTTEI)
<i>Cégep de Victoriaville</i>	Le centre d'expertise et de transfert en agriculture biologique et de proximité (CETAB+)
<b>Ontario</b>	
<i>Algonquin College</i>	Full Spectra Centre Hydro One Lab * Biotechnology Labs Water and Wastewater Labs
<i>Collège Boréal</i>	Le Centre Glencore de recherches appliquées en biodiversité
<i>Cambrian College</i>	Glencore's Centre for Innovation *
<i>Canadore College</i>	Science/Technology Labs
<i>Centennial College</i>	Biotechnology/Microbiology Labs
<i>Conestoga College Institute of Technology and Advanced Learning</i>	Research and Education Centre
<i>Fanshawe College</i>	Environmental Simulation Lab Acoustic Noise Emissions Equipment Centre for Sustainable Energy & Environments Environmental Science and Monitoring Lab Product Validation Lab Exhaust Emission Testing Centre
<i>Fleming College</i>	Centre for Alternative Wastewater Treatment (CAWT)
<i>George Brown College</i>	Green Building Centre ARGILE Lab
<i>Georgian College</i>	Environmental Centre for Sustainable Technologies
<i>Humber College Institute of Technology and Advanced Learning</i>	Centre for Urban Ecology  Tree conservation outdoor Lab Humber Arboretum Outdoor Learning environment
<i>Lambton College</i>	Chemical Analyzer Lab Lambton Water Centre * Sustainable Smart House Water and Wastewater Lab
<i>La Cité</i>	Centre de recherche appliquée en biovalorisation
<i>Loyalist College</i>	CO2 Extraction Laboratory
<i>Niagara College</i>	Environmental Research Labs (living labs) Niagara College Research Greenhouse Land Use Technology Research Lab
<i>Sault College</i>	Environment Canada Air Monitoring Geographic Information System Lab
<b>Manitoba</b>	
<i>Red River College of Applied Arts, Science &amp; Technology</i>	Centre for Applied Research in Sustainable Infrastructure * Electric Vehicle Technology & Education Centre
<i>University College of the North</i>	Northern Manitoba Mining Academy * Flin Flon Academic Teaching Labs *
<b>Saskatchewan</b>	
<i>Saskatchewan Polytechnic</i>	Bioscience Applied Research Centre



<b>Alberta</b>	
<i>Lethbridge College</i>	Biotechnology Lab
<i>Northern Alberta Institute of Technology</i>	Centre for Green Chemistry and Engineering
<i>Olds College</i>	Analytic Labs Botanical Gardens & Constructed Treatment Wetlands Robert Turner Research Centre Research Greenhouse Prairie Turfgrass Research Centre Composting Technology Centre Grow Safe Research Facility *
<i>Grande Prairie Regional College</i>	Carbon Capture Solarium Centre for Research & Innovation (CRI)
<i>Grant MacEwan University</i>	Specialized Lab for Detection, Tracing and Destruction of Antibiotics and Hormones Biowaste
<i>Red Deer College</i>	Environmental Ecology
<i>SAIT Polytechnic</i>	Enerplus Centre for Innovation includes labs for: Biofuel Production; Metals Preparation and Joining; Materials Machining & Water Treatment Systems  Solar Roller Mobile Lab Rainwater Harvesting Lab Green Building Technologies Mobile Produced Water Laboratory
<b>British Columbia / Colombie-Britannique</b>	
<i>British Columbia Institute of Technology</i>	Integrated Molecular Biology Lab (IMBL) Centre for Architectural Ecology (CAE) Rivers Institute Centre of Excellence Technology Centre Sustainability, Infrastructure, Transportation and Environmental Economics (SITE Centre for Applied Research)
<i>Camosun College</i>	Applied Chemistry & Biotechnology
<i>Douglas College</i>	Biology Department Greenhouse Institute of Urban Ecology
<i>Kwantlen Polytechnic University</i>	Institute for Sustainable Horticulture Institute for Sustainable Food Systems
<i>Langara College</i>	Biochar Facility
<i>Northwest Community College</i>	School of Marine and Coastal Studies
<i>Okanagan College</i>	Living Lab - Animal Collection
<i>Selkirk College</i>	Geospatial Research Centre *
<b>Northwest Territories</b>	
<i>Aurora College</i>	Western Arctic Research Centre* Research Labs* Warehouses*
<b>Nunavut</b>	
<i>Nunavut Arctic College</i>	Two Research Labs * Nunavut Research Institute * Wet Laboratories * Cold Storage Warehouses *
<b>Yukon</b>	
<i>Yukon College</i>	Permafrost Assessment Lab Analytical lab for heavy metals
<b>Health, Medical and Life Sciences - 111 Research Centres Sciences de la santé, médicales et de la vie - 111 centres de recherche</b>	
<b>Province/ College/ Collège</b>	<b>Research Centre / Centre de recherche</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	Agri-foods Centre Entomology Research Lab
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	Bioscience and Environmental Science Lab Canada's Smartest Kitchen (food product development) Simulation Facilities in Health Labs
<b>Nova Scotia / Nouvelle-Écosse</b>	



<i>Nova Scotia Community College</i>	Medical Technologies
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Centre de conservation des sols et de l'eau de l'est du Canada* Centre pré-commercial de technologies en bioprocédés* Laboratoire d'aquaculture expérimentale Unité de simulation en technologie routières (USTR)
<b>Québec</b>	
<i>Cégep de Chicoutimi</i>	Centre d'innovation sur la nutrition et les aliments du Québec
<i>Cégep de Drummondville</i>	Institut technologique d'apprentissage gérontologique
<i>Cégep de Jonquière</i>	VISAJ - Chaire de recherche conjointe Cégep de Jonquière - UQAC
<i>Cégep de Lévis-Lauzon</i>	TransBIOTech -Centre collégial de transfert en biotechnologies
<i>Collège Mérici</i>	Centre de solutions technologiques en orthèses et prothèses (CSTOP)
<i>Cégep régional de Lanaudière</i>	Centre d'expertise et de formation en transformation des aliments (CEFTA)
<i>Cégep de Saint-Hyacinthe</i>	La chaire de recherche en matériaux et équipements de protection utilisés en santé et sécurité du travail
<i>Cégep de Sherbrooke</i>	Centre de recherche et de formation par simulation (CEREFS)
<i>Institut de tourisme et d'hôtellerie du Québec</i>	Hôtellerie, restauration et tourisme
<b>Ontario</b>	
<i>Algonquin College</i>	Health and Wellness Research Centre Design Centre
<i>Collège Boréal</i>	Laboratoire de simulation (mannequins électroniques) Laboratoire de soins vétérinaires
<i>Cambrian College</i>	North Ontario Assessment and Resource Centre (New Consortium of several colleges: Confederaton, Boréal, Sault, Canadore & Northern) Glencore's Centre for Innovation *
<i>Canadore College</i>	Simulation Lab
<i>Centennial College</i>	Emergency Management and Public Safety Institute
<i>Conestoga College Institute of Technology and Advanced Learning</i>	The Centre for Advancing Seniors' care  Life Sciences Application Lab Centre for Health and Life Sciences Health Informatics Hub & Service Centre
<i>Fanshawe College</i>	Nursing and Technology Lab Biotechnology and Medical Simulation Lab Nursing and Health Simulation Labs Simulated Dental Office and Dental Radiography Lab Respiratory Therapy Lab Simulation lab and mannequins (health)
<i>Fleming College</i>	Institute for Healthy Aging (IHA)
<i>George Brown College</i>	Nursing Simulated Practice Centre Dental technology laboratories Dental clinic Interprofessional Learning Clinic Prosthetics and Orthotics Lab Emergency Management Simulation Centre Simulation Centre Health e-Home Culinary & food development laboratories Food Innovation and Research Studio (FIRST)
<i>Humber College Institute of Technology and Advanced Learning</i>	Culinary Labs  Exercise Prescription Lab Fitness Testing Lab Clinical Simulation Labs Forensic Labs
<i>Lambton College</i>	Fire & Public Safety Centre of Excellence Health Simulation Lab
<i>Mohawk College</i>	Health Informatics Lab Institute for Applied Health Applied Research Centre mHealth & eHealth Development & Innovation Centre (MEDIC)

	Mobile Technology Physical Chemistry Lab Organic Chemistry Lab Analytical Chemistry Lab General Chemistry Lab Medical Imaging Lab
Niagara College	Canadian Food & Wine Institute Research Centre labs (Microbiology lab, Chemistry Lab, Sensory & Quality Analysis lab, Shelf Life Analysis)  Snoezelen Room
Northern College	Veterinary Technology and Rehabilitation Centre (including Wildlife Rehabilitation) East End Family Health Team Clinic Medical Lab Tech Facility (including telemedicine centre)
Sault College	Clinical Simulation Lab Human Performance Lab Nursing Simulation Lab Physiotherapy Clinic
St. Lawrence College	Nursing/Health Science Research Lab
Seneca College	Bio Chem Applied Research and Training Lab (BCART) Nursing Skills Lab Computer Simulation Labs Animal Health Building Opticianry Labs
Sheridan College Institute of Technology and Advanced Learning	Sheridan Elder Research Centre (SERC)  Centre for Healthy Communities Labs
<b>Manitoba</b>	
Assiniboine Community College	Fruit and Vegetable Field Research
Red River College of Applied Arts, Science & Technology	Paterson Global Food Institute
University College of the North	Faculty of Health - Academic teaching labs
<b>Saskatchewan</b>	
Saskatchewan Polytechnic	BioScience Applied Research Centre Institute for Nursing Scholarship
<b>Alberta</b>	
Grande Prairie Regional College	Neuroscience Laboratory
Northern Alberta Institute of Technology (NAIT)	NovaNAIT South Research Lab South Edmonton Wet Lab
Olds College	Microbiology Lab Apparel Innovation Centre
Red Deer College	Rural Health Research Central Alberta Health Research Collaborative Centre for Healthy Communities Labs
SAIT Polytechnic	Technology Mall - Materials Testing Lab Frequency Identification (RFID) Research Trailer
<b>British Columbia/Colombie-Britannique</b>	
British Columbia Institute of Technology	Herbal Analysis and Evaluation Lab (HEAL) Integrated Molecular Biology Laboratory (IMBL) Dr. Tong Louie Living Laboratory (Living Lab) Rehabilitation Engineering Design Laboratory (REDLab) Cold Atom Technology Laboratory Centre for Rehabilitation Engineering and Technology that Enables (CREATE) Advanced Laboratory for Prototyping Health and Automation (ALPHA) Technology Centre * Motion Capture Lab (MCL)
Douglas College	Centre for Health and Community Partnerships
Camosun College	Sport Innovation Centre (SPIN)
Justice Institute of British Columbia	Maple Ridge Fire Safety Training Centre Pitt Meadows Traffic Safety Education Centre

	High Fidelity Simulation Labs Task Trainers Simulation Facilities
<i>Selkirk College</i>	Worksite Health Promotion Research
<b>Northwest Territories</b>	
<i>Aurora College</i>	Western Artic Research Centre* Research Labs* Warehouses*
<b>Yukon</b>	
<i>Yukon College</i>	New lab and storage buildings
<b>Information and Communications Technologies - 97 Research Centres</b> <b>Technologies de l'information et de la communication - 97 centres de recherche</b>	
<b>Province/ College/ Collège</b>	<b>Research Centre / Centre de recherche</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
<i>College of the North Atlantic</i>	Nanotechnology Lab at Lab City Campus
<b>Nova Scotia / Nouvelle-Écosse</b>	
<i>Nova Scotia Community College</i>	Design and Innovation Centre Nautical Institute (Simulated ship navigation and propulsion technologies)  Aviation Institute
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Centre d'excellence en informatique (CEI) Unité de simulation en technologie routière
<i>New Brunswick Community College</i>	Mobile First Technology IdeaSpaces Research & Innovation Labs
<b>Québec</b>	
<i>Collège Ahuntsic</i>	Institut des communications graphiques et de l'imprimabilité (ICI)
<i>Cégep André-Laurendeau</i>	Centre collégial de transfert technologique en optique-photonique OPTECH
<i>Cégep de Chicoutimi</i>	Centre de géomatique du Québec (CGQ)
<i>Cégep de Drummondville</i>	Musilab Inc.
<i>Cégep de la Gaspésie</i>	Centre d'innovation en formation à distance (CIFAD) Centre d'étude et de développement pour l'innovation technopédagogique
<i>Cégep John-Abbott College</i>	Centre collégial de transfert technologique en optique-photonique OPTECH *
<i>Cégep de Jonquière</i>	Centre de recherche, de développement et d'innovation en communication
<i>Cégep de La Pocatière</i>	Centre collégial de transfert technologique en optique-photonique OPTECH*
<i>Collège Lionel-Groulx</i>	Centre d'innovation en microélectronique du Québec (CIMEQ)
<i>Cégep de Matane</i>	Centre de développement et de recherche en imagerie numérique (CDRIIn)
<i>Cégep de l'Outaouais</i>	Laboratoire de modélisation et d'intelligence territoriale (LABMIT)
<i>Cégep régional de Lanaudière</i>	Centre d'expertise et de formation en design industriel (CEFDI)
<i>Cégep de Sainte-Foy</i>	Centre en imagerie numérique et médias interactifs - (CIMMI)
<i>Cégep de Trois-Rivières</i>	Centre collégial de transfert de technologie en télécommunications (C2T3)
<b>Ontario</b>	
<i>Algonquin College</i>	Design Centre * Full Spectra Centre * Media Convergence Centre Photonics Lab Health & Wellness Research Centre Wireless Technologies Lab
<i>Collège Boréal</i>	Laboratoires de télécommunication
<i>Cambrian College</i>	Glencore's Centre for Innovation *
<i>Canadore College</i>	Integrated Digital Media Hub
<i>Centennial College</i>	HDTV Digital Broadcasting and Film Studio Simulation Lab Information and Communication Technology Labs
<i>Conestoga College Institute of Technology and Advanced Learning</i>	The Applied Research Integrated Telecommunication and Computer Technologies LAB The advanced Sensors' Lab MAC Lab Centre of Excellence in Digital Media The Applied Research Software Lab

<i>Fanshawe College</i>	Computer Numerical Control Lab CAD Labs TV and Radio Broadcasting Centre/Broadcast Newsroom Video Audio Editing and Post Production Suites Mobile Platform Lab Multimedia Labs
<i>George Brown College</i>	Institute Without Boundaries Game-Design Laboratory StudioLab Automated Manufacturing Laboratory Surface Mount Laboratory Construction Technologies Laboratories Computer laboratories, including 3D modeling Computer Numerical Control (CNC) Lab Application Development Lab
<i>Humber College Institute of Technology and Advanced Learning</i>	Industrial Design Prototyping Lab RhyTHM Lab  Film and TV Broadcast Studio Music Production Centre Recording Studio Digital Media Research Lab Wireless Lab Creative Advertising Centre
<i>Lambton College</i>	Process Simulation Lab
<i>Mohawk College</i>	Procor Lab Mobile Technology Lab * Mohawk's mHealth and eHealth Development and Innovation Centre (MEDIC) *
<i>Niagara College</i>	Technology Research Centre (industry flex space) Augmented Reality Research Labs and Centre for Land Use Technology  Computer Programming Research Lab Web Design and Development Research Lab Computational Agriculture and Remote Sensing/3D Visualization Research Lab
<i>Northern College</i>	Systems Analysis and Design and Simulation
<i>Sault College</i>	Network Lab
<i>Seneca College</i>	Centre for Advanced Technologies Centre for the Development of Open Technologies (CDOT) Aviation Simulators
<i>Sheridan College Institute of Technology and Advanced Learning</i>	High Performance Computing Facilities Visualization Design Institute (VDI) Mobile Computing Applications Development Labs Screen Industries Research and Training Centre (SIRT) Sharcnet and Access Grid
<b>Manitoba</b>	
<i>Red River College of Applied Arts, Sciences &amp; Technology</i>	Centre for Aerospace Technology & Training Two specially designed networking classrooms/labs as well as Industry Project student/client facilities
<b>Saskatchewan</b>	
<i>Saskatchewan Polytechnic</i>	Computer Science Applied Research Centre
<b>Alberta</b>	
<i>NorQuest College</i>	Centre for Excellence in Print Media
<i>Northern Alberta Institute of Technology (NAIT)</i>	Prototyping Laboratory (School of Electrical and Electronics Technology) St. Albert Centre (Biological Sciences, Digital Media & Robotics) Nanotechnology Centre for Applied Research, Industry Training and Services (nanoCARTS).
<i>Red Deer College</i>	Mobile Computing Applications Development Labs High Performance Computing Facilities SPARK New Business Development Incubator

SAIT Polytechnic	Radio Frequency Identification Application Development Lab (RADLab) Centre for Innovative Information Technology Solutions Technology Mall - Solids Modeling Lab
<b>British Columbia/Colombie-Britannique</b>	
British Columbia Institute of Technology	Advanced Prototyping Hub Centre for Forensics and Security Technology Studies Dr. Tong Louie Living Laboratory Industrial Instrumentation Process Lab Technology Centre*
Douglas College	Digital Cultures Lab
North Island College	Remote Web-based Science Labs
Selkirk College	Selkirk Geospatial Research Centre
<b>Northwest Territories</b>	
Aurora College	Western Artic Research Centre* Research Labs* Warehouses*
<b>Nunavut</b>	
Nunavut Artic College	Geomagnetic Observatory Nunavut Research Institute *
<b>Yukon</b>	
Yukon College	Yukon Technology Innovation Centre
<b>Manufacturing, Building Technology - 153 Research Centres</b> <b>Fabrication et technologies du bâtiment - 153 centres de recherche</b>	
<b>Province/ College / Collège</b>	<b>Research Centre / Centre de recherche</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>	
College of the North Atlantic	Innovative Product Development Centre Manufacturing Technology Centre
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
Holland College	Precision Maining Labs Specialized metallurgy equipment (proposed Atlantic Research network) Georgetown, PEI Georgetown Welding and Fabrication Centre
<b>Nova Scotia / Nouvelle-Écosse</b>	
Nova Scotia Community College	Advanced Manufacturing Research Lab Design & Innovation Centre Centre for the Built Environment Pilikan House
<b>New Brunswick / Nouveau-Brunswick</b>	
Collège communautaire du Nouveau-Brunswick	Centre d'excellence en bois ouvré (CEBO) Centre de technologies en soudage du Canada atlantique (CTSCA) Services d'appui à l'industrie des matériaux composites Centre d'innovation et de transfert technologique des métaux
<b>Quebec</b>	
Cégep André-Laurendeau	Institut international de logistique de Montréal
Cégep Beauce-Appalaches	MÉCANIUM - Centre d'innovations en mécanique industrielle
Cégep de La Pocatière	Centre spécialisé de technologie physique du Québec Inc. (CSTPQ) Solutions Novika
Collège Édouard-Montpetit	Centre technologique en aérospatiale (CTA )
Cégep François-Xavier Garneau	Centre d'expertise en transport et logistique (CETL)
Cégep de la Gaspésie et des Îles	Halieutec
Cégep de Jonquière	Centre de production automatisée (CPA)
Collège Lasalle	Centre de transfert technologique de la mode (CTTM)
Cégep de Lévis-Lauzon	Centre de robotique et de vision industrielles (CRVI)
Collège de Maisonneuve	Centre d'études en procédés chimiques du Québec (CÉPROCQ) Institut de technologie des emballages et du génie alimentaire – (ITEGA)
Cégep Marie-Victorin	VESTECHPRO - Centre de recherche et d'innovation en habillement
Cégep de Rimouski	Innovation maritime - Centre de recherche appliquée en technologies maritimes

	Corporation du service de recherche et d'expertise en transformation des produits forestiers (SEREX)
<i>Cégep régional de Lanaudière</i>	Centre d'expertise et de formation en design industriel (CEFdi)
<i>Cégep de Rivière-du-Loup</i>	Laboratoire de biométhanisation
<i>Cégep de Saint-Hyacinthe</i>	Groupe CTT - Centre d'excellence des technologies textiles, géosynthétiques et matériaux souples Centre d'innovation technologique en agro-alimentaire (Cintech agroalimentaire )
<i>Cégep de Saint-Jérôme</i>	Centre de développement des composites du Québec (CDCQ) Institut de transport avancé de Québec (ITAQ)
<i>Cégep de Sept-Îles</i>	Institut technologique de maintenance industrielle- ITMI
<i>Cégep de Sherbrooke</i>	Centre de productique intégrée du Québec (CPIQ)
<i>Cégep de Thetford</i>	Centre de technologie minérale et de plasturgie (CTMP) OLEOTEK - Centre collégial de transfert de technologie en oléochimie industrielle
<i>Cégep de Trois-Rivières</i>	Innofibre - Centre d'innovation des produits celluloseux Centre de métallurgie du Québec (CMQ)
<i>Cégep de Valleyfield</i>	Centre d'innovation en mécanique industrielle
<i>Cégep de Victoriaville</i>	Entreprises Centre d'aide technique et technologique en meuble et bois ouvré (EQMBO)
<b>Ontario</b>	
<i>Algonquin College</i>	Construction Research Centre
<i>Cambrian College</i>	Glencore's Centre for Innovation *
<i>Collège Boréal</i>	Laboratoire d'automatisme
<i>Canadore College</i>	Innovation Centre for Advanced Manufacturing and Production Advanced Composites Fabrication, Repair and Test Centre
<i>Centennial College</i>	CNC/Rapid Prototyping Lab
<i>Conestoga College Institute of Technology and Advanced Learning</i>	Centre for Smart Manufacturing
<i>Fanshawe College</i>	Construction Lab Power Electronics Development Lab Concrete Testing Lab Mechatronics Lab Electrical/Electronics Lab Engine Lab Instrumentation Lab Driving Simulator Mechanical Metrology Lab Robotics
<i>George Brown College</i>	The Centre for Construction & Engineering Technologies Advanced Prototyping Lab Advanced Product Development Lab Application Development Lab Building Sciences Lab Computer Numerical Control Lab Programmable Logic Controllers Lab Building Information Modeling Test Hut for building materials and processes testing Building Automation Lab Machine Shop HVAC Lab Plumbing Lab Pneumatics Lab Materials Testing Lab Metrology Lab Radio Frequency Identification (RFID) Lab Wireless Networking Lab Fashion sewing lab
<i>Georgian College</i>	Centre for Sustainable Technologies Green Innovation Centre



	Applied Research & Innovation Lab Applied Design & Manufacturing Solutions
<i>Humber College Institute of Technology and Advanced Learning</i>	Wine Lab
<i>La Cité</i>	Centre des métiers Minto Centre de recherche en construction - Structure et matériaux Technologie du génie
<i>Lambton College</i>	Advanced Materials Engineering Research (AMER) Lab Advanced Process Control & Simulation (APCS) Lab Material Testing Lab Disributed Control Systesm (DCS) Lab Distillation Lab Instrumentation Lab 3D Printing Lab Robotics Lab Process Simulation Lab Millwright and Welding Shops
<i>Mohawk College</i>	Foundry Lab Physical Chemistry Lab Organic Chemistry Lab Analytical Chemistry Lab General Chemistry Lab Metallurgy Lab Electrical Circuits Lab Electrotechnology Lab Process Automation Lab Electrotechnology Lab Electronics Lab Electric Vehicle Lab
<i>Niagara College</i>	Mechanical Engineering Research Lab Industry Innovation Centre at Niagara (3 labs) Clean Room Research Facilities
<i>Northern College</i>	Trades and Technology Centre Process Control and Instrumentation Lab Productivity and Innovation Centre Material Join and Innovation Centre (MAJIC)
<i>Sault College</i>	Electrical Automation Lab Mechanical Testing Lab
<i>Seneca College</i>	Training and Testing Labs Centre for Advanced Technologies
<i>Sheridan College Institute of Technology and Advanced Learning</i>	Centre for Advanced Manufacturing & Design Technologies (CAMDT)
<b>Manitoba</b>	
<i>Red River College of Applied Arts, Sciences &amp; Technology</i>	Centre for Non-Destructive Inspection Centre for Aerospace Technology & Training Centre for Applied Research in Sustainable Infrastructure * Centre for Non-Destructive Inspection Technology Access Centre - Aerospace & Manufacturing Advanced Transportation & Energy Centre
<i>University College of the North</i>	Academic teaching shops
<b>Alberta</b>	
<i>Grande Prairie Regional College</i>	Innovation Services - Centre 2000
<i>Medicine Hat College</i>	Advanced Manufacturing - 3D Printing and Laser Scanning
<i>Northern Alberta Institute of Technology (NAIT)</i>	NAIT Shell Manufacturing Centre
<i>Olds College</i>	Natural Fibre Research Centre
<i>Red Deer College</i>	Centre for Innovation in Manufacturing
<i>SAIT Polytechnic</i>	Bubble Greenhouse FABLab Enerplus Centre for Innovation Solids Modeling Lab Composites Fabrication Lab Solar Lab *

	Rainwater Harvesting Lab * Materials Testing Lab Small-scale Injection Molding Facilities Green Building Technologies Lab Demonstration Centre
<b>British Columbia/Colombie-Britannique</b>	
<i>British Columbia Institute of Technology</i>	AFRESH Home British Columbia Institute of Technology Canadian Housing & Construction Centre Building Envelope Test Hut Building Science Centre of Excellence (BSCE) Centre for Architectural Ecology (CAE) Collaborations in Living Walls Food Processing Research Centre Smart Micro Grid Technology Centre * Green Roof Research Facility
<i>Camosun College</i>	Vancouver Island Centre for Advanced Manufacturing and Prototyping (VICAMP) Camosun Technology Access Centre (CTAC)
<i>Kwantlen Polytechnic University</i>	Institute for Materials Innovation
<b>Northwest Territories</b>	
<i>Aurora College</i>	Western Arctic Research Centre* Research Labs* Warehouses*
<b>Yukon</b>	
<i>Yukon College</i>	Laboratory for testing cold climate wall R values
<b>Social Innovation - 99 Research Centres</b> <b>Innovation sociale - 99 centres de recherche</b>	
<b>Province/ Collège/collège</b>	<b>Research Centre / Centre de recherche</b>
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Centre d'excellence en compétences essentielles au travail (CECET)
<b>Prince Edward Island / Île-du-Prince-Édouard</b>	
<i>Holland College</i>	Teaching and Learning Labs
<b>New Brunswick / Nouveau-Brunswick</b>	
<i>Collège communautaire du Nouveau-Brunswick</i>	Unité de simulation en technologie routière *
<b>Québec</b>	
<i>Collège Bois-de-Boulogne</i>	Centre de développement de la relève scientifique et technologique (CDRST)
<i>Cégep de Chicoutimi</i>	Centre de démonstration scientifique Saguenay Lac-St-Jean
<i>Dawson College</i>	Centre de recherche pour l'inclusion scolaire et professionnelle des étudiants en situation de handicap (CRISPESH)
	SALTISE - Centre for research on active learning in science education
<i>Collège Edward-Montpetit</i>	Laboratoire intercollégial de recherche en enseignement de la littérature (LIREL)
<i>Cégep François-Xavier-Garneau</i>	Centre d'Aude d'études de la nouvelle (CAEN) Centre d'intervention et de recherche en évaluation du personnel en éducation et en entreprise (CIREPE)
<i>Cégep de la Gaspésie et des Îles</i>	Centre d'initiation à la recherche et d'aide au développement durable (CIRADD) Centre d'innovation en formation à distance (CIFAD) Centre d'étude et de développement pour l'innovation technologique (Cédit)
<i>Cégep de Jonquière</i>	Écobes Recherche et transfert - Centre d'étude des conditions de vie et des besoins de la population (PSN) Groupe de recherche TRÉFIE sur la petite enfance Consortium québécois de développement des pratiques psychomotrices



	La Chaire UQAC–Cégep de Jonquière sur les conditions de vie, la santé et les aspirations des jeunes (VISAJ) Centre de recherche et de développement en Innovation et Communication (CRDIC)
<i>Collège de Maisonneuve</i>	Institut de recherche sur l'intégration professionnelle des immigrants (IRIPI)
<i>Cégep Marie-Victorin</i>	Chaire Unesco de recherche appliquée pour l'éducation en prison
<i>Collège Montmorency</i>	Centre d'expertise et de recherche sur l'intégration sociale et professionnelle des personnes immigrantes
<i>Cégep de l'Outaouais</i>	Laboratoire intercollégial de recherche en enseignement de la littérature (LIREL) Centre collégial de recherche en transfert de l'intelligence territoriale (CeRTIT)
<i>Cégep régional de Lanaudière</i>	Centre collégial de recherche en économie sociale (CERESO)
<i>Cégep de Rivière-du-Loup</i>	Laboratoire d'innovation ouverte Living-Lab
<i>Collège de Rosemont</i>	Centre d'étude en responsabilité sociale et écocitoyenneté (CÉRSÉ) Centre collégial de transfert de technologie en pratiques sociales novatrices (CCTT-PSN),
<i>Cégep de Trois-Rivières</i>	Groupe de recherche et d'applications didactiques en électronique industrielle (GRADEI) Groupe de recherche sur l'inclusion sociale (GRIS) Le Centre interdisciplinaire de perfectionnement pédagogique et de recherche en enseignement supérieur -Le groupe de recherche société et culture
<i>Vanier College</i>	CFI Lab Institutional Development & Research Office
<i>Cégep de Victoriaville</i>	Centre d'innovation sociale en agriculture (CISA)
<i>Cégep du Vieux Montréal</i>	Centre de recherche pour l'inclusion scolaire et professionnelle des étudiants en situation de handicap (CRISPESH)* Institut de technologie de Montréal
<b>Ontario</b>	
<i>Algonquin College</i>	ACHI Research Centre ACOV Research Centre Health & Wellness Research Centre *
<i>Centennial College</i>	Interprofessional Education Lab
<i>Conestoga College Institute of Technology and Advanced Learning</i>	The Centre for Entrepreneurship Centre of Business Excellence Cambridge Campus Lab Doon Campus Lab
<i>Fanshawe College</i>	Activity of Daily Living Laboratory Counseling Lab
<i>Georgian College</i>	Centre for Russian Canada Relations Henry Bernick Entrepreneurship Centre
<i>Humber College Institute of Technology and Advanced Learning</i>	Humber Launch Centre for Entrepreneurs
<i>Lambton College</i>	Circles
<i>Mohawk College</i>	Millennium Foundations for Success The Agency (McKeil School of Business initiative where marketing/advertising/design/journalism/PR students work on real campaigns for non-profit and for-profit organizations) iDeaWorks (Innovation/applied research and commercialization) Lab
<i>Niagara College</i>	Business & Commercialization Solutions Research Lab
<i>St. Lawrence College</i>	Centre of Excellence for Behavioural Research In Our Community (CEBRIC)
<i>Sault College</i>	Training Centre
<i>Seneca College</i>	Technology Enhanced Learning Unit Centre for Entrepreneurship Centre for Financial Services Centre for Academic Excellence
<i>Sheridan College</i>	Applied Research and Collaboration Centre (ARCC)
<b>Manitoba</b>	

<i>Red River College of Applied Arts, Sciences &amp; Technology</i>	The Science of Early Child Development
<i>University College of the North</i>	Centre for Aboriginal Languages & Culture
<b>Saskatchewan</b>	
<i>Saskatchewan Polytechnic</i>	Early Childhood Demonstration Lab Day Care Centre Interprofessional Simulation Learning Centre Labs
<b>Alberta</b>	
<i>Bow Valley College</i>	Test of Workplace and Essential Skills (TOWES) Foundational Learning Centre Institutional Analysis Evaluation Unit in Learning Resource Services Intercultural Education
<i>Lakeland College</i>	Emergency Training Centre
<i>Lethbridge College</i>	Citizen Society Research Lab
<i>NorQuest College</i>	Centre for Excellence in Education in Continuing Care Centre for Excellence in Intercultural Education (CEIE) Centre for Excellence in Learner Supports (CELS) Centre for Excellence in Aboriginal Learning (CEAL)
<i>Red Deer College</i>	SEARCH Asset Applied Research and Collaboration Centre (ARCC)
<b>British Columbia/Colombie-Britannique</b>	
<i>British Columbia Institute of Technology</i>	Learning & Teaching Centre Centre for Forensics and Security Technology Studies Sustainability, Infrastructure, Transportation & Environmental Economics Centre for Applied Research (SITE) * Technology Centre * Economics (SITE)
<i>Douglas College</i>	Digital Cultures Lab
<i>Justice Institute of British Columbia</i>	Centre for Prevention and Reduction of Violence Centre for Resilient Communities Centre for Environmental Justice Qualitative Analysis Lab Driving Track Shooting Range Vehicle extraction Live fire burn building Full-scale train derailment simulation Simulation spaces (apartment, configurable gym with moveable walls, mock jail, mock courtroom) Donald B Rix Public Safety Simulation Centre
<i>Kwantlen Polytechnic University</i>	The Centre for Interdisciplinary Research: Community Learning & Engagement (CIR:CLE) Acting Together: Community-University Research Alliance (AT-CURA)
<i>Okanagan College</i>	Wine Sensory Lab Community Garden
<i>Selkirk College</i>	Regional Innovation Chair (RIC) Rural Development Institute (RDI) MIR Centre for Peace Teaching and Learning Institute Columbia Basin Rural Development Institute
<b>Nunavut</b>	
<i>Nunavut Arctic College</i>	Two Research Labs * Nunavut Research Institute *
<b>Yukon</b>	
<i>Yukon College</i>	Social Science Lab

## APPENDIX / ANNEXE 4

### 2013-2014 Applied Research Environmental Scan / Enquête sur les activités de recherche appliquée 2013-2014

#### Research Networks Identified by Respondent Colleges / Réseaux de recherche - par collège répondant

Regions / Régions	Research Networks / Réseaux de recherche
<b>Yukon</b>	<ul style="list-style-type: none"> <li>British Columbia Applied Research and Innovation Network (BCARIN)</li> <li>Canadian Mining Innovation Council (CMIC)</li> <li>Colleges &amp; Institutes Canada - National Research Advisory Committee (NRAC)</li> <li>Colleges &amp; Institutes Canada - Research Network</li> <li>Polar Commission</li> <li>Polar Continental Shelf Program</li> </ul>
<b>British Columbia/ Colombie- Britannique</b>	<ul style="list-style-type: none"> <li>Advanced Networks for Higher Education and Research in British Columbia (BCNET)</li> <li>Alliance for Commercialization of Canadian Technologies (ACCT)</li> <li>BC-Alberta Social Economy Research Alliance</li> <li>BCNET</li> <li>BC Nurse Research Initiative (BCNRI)</li> <li>British Columbia Applied Research and Innovation Network (BCARIN)</li> <li>British Columbia Rural Research Network</li> <li>Canadian Alliance for Community Service Learning</li> <li>Canadian Association of University Research Administrators (CAURA)</li> <li>Canadian Columbia Basin Glacier &amp; Snow Research Network</li> <li>Canadian EMS Research Network</li> <li>Canadian Rural Revitalization Foundation</li> <li>Colleges &amp; Institutes Canada - National Research Advisory Committee (NRAC)</li> <li>Colleges &amp; Institutes Canada - Research Network</li> <li>Columbia Mountains Institute of Applied Ecology</li> <li>DND Canadian Safety &amp; Security Program Communities of Practice: Police, Fire, EMS, Emergency Management, Psychosocial</li> <li>Greater Victoria Chamber of Commerce (Manufacturing &amp; Industrial Sector Operational Committee</li> <li>Green Marine</li> <li>Inspirenet: Innovative Health Services &amp; Practice</li> <li>NSERC Smart Microgrid Network (NSMG-Net)</li> <li>Research Impact CIC</li> <li>Vancouver Island Community Research Alliance (VICRA)</li> <li>Victoria Advanced Technology Council (VIATeC)</li> <li>Westlink Innovation Network</li> <li>World Conference on Disaster and Emergency Medicine (WCDEM) Planning Committee</li> </ul>
<b>Alberta</b>	<ul style="list-style-type: none"> <li>Advancing the Commercialization of Canadian Technologies</li> <li>Agriculture Food &amp; Fibre Applied Research Network (regional)</li> <li>Alberta Association of Colleges and Technical Institutes (AACTI)</li> <li>Alberta Biochar Network</li> <li>Alberta Innovates</li> <li>Alberta Innovates Technology Futures</li> <li>Alberta Institutional Research Managers Committee</li> <li>Alberta Prion Research Network</li> <li>Alberta Regional Innovation Networks</li> <li>Alberta Research Innovation Network</li> <li>Alberta Rural Development Network</li> <li>Alberta Rural Organic Waste to Resources Network (AROWRN)</li> <li>Alberta Turfgrass Research Foundation</li> <li>Alliance for Commercialization of Canadian Technologies (ACCT)</li> <li>Animal Care Coordinator Listservs</li> <li>Biorefining Conversions Network</li> <li>Calgary Regional Innovation Network</li> <li>Campus Alberta</li> <li>Canada's Oil Sands Innovation Alliance (COSIA)</li> </ul>

	<p>           Canadian Association of University Research Administrators (CAURA)            Canadian Community Economic Development Network            Canadian Council of Animal Care            Canadian Evaluation Society            Canadian Manufacturers and Exporters            Central Alberta Economic Partnership (CAEP)            Central Alberta Region Innovation Network (CARIN)            Central Alberta Rural Manufacturers Association            Clearinghouse            Colleges &amp; Institutes Canada - National Research Advisory Committee (NRAC)            Colleges &amp; Institutes Canada - Research Network            Community Research Ethics Board of Alberta (CREBA)            Cybera            Edmonton Regional Alliance            Evaluation Society Alberta Innovates Connector Directory            Innovation Management Committee            Institute for Continuing Care Education and Research (ICCER)            National Research Council-Industrial Research Assistance Program (IRAP) - West            North American Research Network Linkages            Northern Alberta Development Council            Northern Labour Market Information            Polytechnics Canada            Regional Alliance Partnership            Regional Innovation Network (RIN)            Renew West            Renewable Energy Research Alberta            RIN Consortium (which consists of Entrecorp Community Futures, Medicine Hat College and the Economic Developers Alberta)            Rural Development Network            Southern Alberta Intellectual Property Network (SAIPN)            Sustainable Cropping System Platforms for Biodiesel Feedstock Quantity and Quality Network            Virtual Researcher On Call (VROC)            West Link Innovation Network            Western Innovation Office Initiative         </p>
<b>Saskatchewan</b>	<p>           Colleges &amp; Institutes Canada - National Research Advisory Committee (NRAC)            Colleges &amp; Institutes Canada - Research Network            Communities of Tomorrow            Heartland Applied Research Partners (formerly Great Plains Applied Research Network)            Danish Technology Network and TRLabs            Polytechnics Canada            Saskatchewan Council for Archives and Archivists            Saskatchewan Environmental Industry and Managers Association (SEIMA)            Saskatchewan Museums Association            Saskatchewan Research Council            TRLabs Partnership            University of Regina            University of Saskatchewan            Westlink Innovation Network         </p>
<b>Manitoba</b>	<p>           Aboriginal Education Research Forum            Canada's Advanced Research and Innovation Network (CANARIE)            Colleges &amp; Institutes Canada - National Research Advisory Committee (NRAC)            Colleges &amp; Institutes Canada - Research Network            Danish Technology Network and TRLabs            Manitoba Association of Distributed Learning and Technologies (MADLaT)            Manitoba Education Research Network (MERN)         </p>

	Heartland Applied Research Partners (HARP) (formerly Great Plains Applied Research Network) Manitoba Zero Tillage Research Association (MZTRA) Prairie IP Activator (PIPA) TR Labs Partnership TRTech Western Canada Innovation Office WestLink Innovation Network
<b>Ontario</b>	ACM Advanced Medical Research Institute of Canada (AMRIC) Alliance for Commercialization of Canadian Technologies (ACCT) Association for Institutional Research (AIR) Bioindustrial Innovation Centre (BIC) Canada's Health Informatics Association Canada Health Infoway partnership Canadian Association of University Research Administrators (CAURA) Canadian Association of Research Ethics Boards (CAREB) Canadian Association on Water Quality Canadian Council for Animal Care Canadian Hydrogen and Fuel Cell Association (CHFCA) Canadian Institutional Research and Planning Association (CIRPA) Canadian Interprofessional Health Collaboration (CIHC) Canadian Mining Innovation Council (CMIC) Canadian Process Control Association (CPCA) Canadian Water Network Capital Entrepreneurs Centre of Excellence for Mining Innovation (CEMI) Centre for Innovation and Collaboration in the Art and Sciences (CICAS) COACH Colleges & Institutes Canada - National Research Advisory Committee (NRAC) Colleges & Institutes Canada - Research Network Colleges Ontario Heads of Applied Research (HAR) Colleges Ontario Heads of Applied Research Executive Colleges Ontario Network for Industry Innovation (CONII) Colleges Ontario Network for Industry Innovation (CONII) - Research Ethic Board (REB) Conference Board of Canada - Council for Innovation and Commercialization Conseil national de recherches du Canada (CNRC) Consortium on New Media, Creative and Entertainment R&D (CONCERT) Council on Undergraduate Research (CUR) Eastern Ontario Wood Centre FedDev Best Practices Working Group Génome Ontario Greater Sudbury Regional Business Centre Halton Regional Innovation Centre (Haltech) Higher Education Quality Council of Ontario (HEQCO) Hydro One Applied Research Consortium -(HARC) Inclusive Design Institute (IDI) Innovate Niagara Innovation in Manufacturing Network Innovation Synergy Centre in Markham (ISCM) Institute of Electrical and Electronics Engineers (IEEE) Institute for Watershed Science Interactive Manufacturing Innovation Network (IMIN) International Electrotechnical Commission (IEC) International Polar Year Program

MaRS  
 Mississauga Research Innovation Centre (RIC)  
 Nano Ontario  
 National Institute for Health Informatics  
 National Photovoltaic Innovation Network  
 NSERC Synergy & Innovation Awards Committee  
 Network for Innovation & Entrepreneurship (NIE)  
 Non-Residential Attendance Centre (NRAC)  
 Northeast Academic Health Sciences Network  
 Northeastern Ontario Research Alliance (NEORA)  
 Northeastern Ontario Resource Association  
 Northern Interprofessional Committee for Health Education  
 Northern Ontario Research Ethics Board Consortium  
 Northern Policy Institute  
 Northern Research Working Group  
 OCE – Advanced Manufacturing Sector Advisory Board  
 OCE – Talent External Advisory Panel  
 Ontario Augmented Reality Network  
 Ontario Centres of Excellence (OCE)  
 Ontario Colleges - Heads of Applied Research Executive  
 Ontario Colleges Institutional Research Committee (OCIRC)  
 Ontario Golden Horseshoe Biosciences Network  
 Ontario Grapevine and Wine Research Network  
 Ontario Network of Entrepreneurs (ONE)  
 Ontario Network of Excellence (ONE)  
 Ontario Onsite Wastewater Association  
 Ontario Research and Innovation Optical Network (ORION)  
 Ontario Research Ethics Sub-Committee  
 Ontario Society for Excellence in Technology Transfer (OnSETT)  
 Ontario Tire Stewardship (OTS)  
 Ottawa Technology Transfer Network  
 Ontario Vineland Research and Innovation Centre  
 Ottawa Young Entrepreneurs  
 Ottawa Centre for Research and Innovation (OCRI)  
 Pan-Northern Applied Research Network  
 Partnerships in Academic Collaboration and Entrepreneurship (PACE)  
 Peel Regional Innovation Centre  
 Photovoltaic Innovation Network Ontario  
 Polytechnics Canada  
 Recording Arts Canada  
 Regional Innovation Centre (RIC)  
 Réseau pour l'innovation industrielle des collèges de l'Ontario  
 Regional Innovation Network (RIN)  
 SHARCnet  
 Silicon Halton  
 Smart Grid Consortium - Sustainable Energy Applied Research Centre (SEARC)  
 Society for College and University Planning (SCUP)  
 Solar Building Research Network  
 Southwestern Ontario Bioproducts Innovation Network (SOBIN)  
 Standards Collaborative Working Groups  
 Sustainable Chemistry Alliance (SCA)  
 The Ontario Augmented Reality Network  
 TechAlliance (London Ontario)  
 Technology Evaluation in the Elderly Network (TVN)

	<p>Toronto Region Research Alliance (TRRA)</p> <p>Underground Ultra Deep Mining Research Network</p> <p>Vineland Research and Innovation Centre Ontario</p> <p>World Discoveries (London, Ontario)</p> <p>York BioTech</p>
<b>Québec</b>	<p>American Composites Manufacturers Association</p> <p>ArboraNano</p> <p>Association aquacole du Canada</p> <p>Association de la pédagogie collégiale</p> <p>Association des industriels de la pêche du Québec</p> <p>Association des pêcheurs propriétaires du Québec</p> <p>Association francophone pour le savoir (ACFAS)</p> <p>Association pour la recherche au collégial (ARC)</p> <p>Association pour le développement et l'innovation en chimie au Québec (ADICQ)</p> <p>Association pour le développement de la mesure en évaluation en éducation (ADMEE)</p> <p>Association pour le développement de la recherche et de l'innovation du Québec (ADRIQ)</p> <p>Association québécoise de pédagogie collégiale (AQPC)</p> <p>Association québécoise en maîtrise de l'énergie</p> <p>Associations de pêcheurs indépendantes</p> <p>Bureau canadien de l'éducation internationale (BCEI)</p> <p>Canadian Association of University Research Administrators (CAURA)</p> <p>Cégep International</p> <p>Centre collégial de développement de matériel didactique (CCDMD)</p> <p>Centre d'innovation et de technologies industrielles de Granby (CITIG)</p> <p>Centre international pour l'enseignement et la formation technique et professionnelle (UNEVOC)</p> <p>Centre interuniversitaire de recherche sur la science et la technologie (CIRST)</p> <p>Centre québécois de recherche et de développement de l'aluminium (CQRDA)</p> <p>Centre québécois de valorisation des biotechnologies (CQVB)</p> <p>Centre de recherche interuniversitaire sur la littérature et la culture québécoises (CRILCQ)</p> <p>Centre de recherche sur les matériaux renouvelables (CRMR)</p> <p>Centre de recherche sur les systèmes polymères et composites haute performance (CREPEC)</p> <p>Chaires de recherche industrielle dans les collèges (CRIC)</p> <p>Colleges &amp; Institutes Canada - National Research Advisory Committee (NRAC)</p> <p>Colleges &amp; Institutes Canada - Research Network</p> <p>Comité d'experts du Programme de recherche et de développement Moule en Gaspésie</p> <p>Comité de développement du programme ACCORD</p> <p>Comité sectoriel de main-d'œuvre des pêches maritimes (CSMOPM)</p> <p>Conseil de recherches en sciences naturelles et en génie du Canada (CRSNG)</p> <p>Conseil Régional de Prévention de l'Abandon Scolaire (CREPAS)</p> <p>Consortium d'animation sur la persévérance et la réussite en enseignement supérieur (CAPRES)</p> <p>Consortium Innovation Polymères (CIP)</p> <p>Consortium de recherche en innovation aérospatiale du Québec (CRIAQ)</p> <p>Consortium de recherche et innovations en bioprocédés industriels au Québec (CRIBIQ)</p> <p>Consortium régional de la recherche en éducation (CRRE)</p> <p>Corporation de recherche et d'action sur les maladies héréditaires (CORAMH)</p> <p>Fédération des cégeps du Québec</p> <p>Figura, le Centre de recherche sur le texte et l'imaginaire</p> <p>Fondation Canadienne pour l'Innovation (FCI)</p> <p>Groupe de recherche en médiation culturelle</p> <p>Groupe de recherche sur l'immigration, l'équité et la scolarisation (GRIÉS)</p> <p>Groupe de recherche sur les imaginaires politiques en Amérique latine (GRIPAL)</p> <p>Inno-VÉ</p> <p>INRS</p> <p>Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST)</p>

	<p>Institute of Electrical and Electronics Engineers (IEEE)</p> <p>Laboratoire d'histoire et du patrimoine de Montréal (LHPM)</p> <p>Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ)</p> <p>Ministère Pêches et Océans Canada (MPO)</p> <p>Observatoire interdisciplinaire de création et de recherche en musique (OICRM)</p> <p>PERFORMA</p> <p>Pôle d'excellence québécois en transport terrestre</p> <p>Pratiques de participation citoyenne dans la recherche et l'action sur les inégalités sociales (PAXCIT)</p> <p>Programme d'aide à la recherche sur l'enseignement et l'apprentissage (PAREA)</p> <p>PROMPT</p> <p>Regroupement des chercheurs en aluminium (REGAL)</p> <p>Regroupement des industries des composites du Québec (RICQ)</p> <p>Regroupements sectoriels du Ministère du Développement économique, de l'Innovation et de l'Exportation (MDEIE)</p> <p>Regroupements stratégiques pour la programmation portant sur Figura</p> <p>Res Artis</p> <p>Réseau Aquaculture Québec</p> <p>Réseau des Cégeps et des Collèges Francophones du Canada (RCCFC)</p> <p>Réseau Environnement</p> <p>Réseau International Education et Diversité (RIED)</p> <p>Réseau Interordre de l'énergie durable</p> <p>Réseau des universités du Québec</p> <p>Réseau de Recherche Adaptech</p> <p>Réseau recherche innovation Québec</p> <p>Réseau Trans-Tech et les CCTT</p> <p>Ressources Aquatiques Québec (RAQ)</p> <p>Ressources, sciences et technologies marines (RSTM)</p> <p>SADC Rocher Percé</p> <p>Service de technologie en pêche (STEP)</p> <p>Société de développement de l'industrie maritime (SODIM)</p> <p>Société de la Vallée de l'Aluminium</p> <p>Sociétés de valorisation de la recherche universitaire</p> <p>Supporting Active Learning &amp; Technological Innovation in Science Education (SALTISE)</p> <p>Territoires innovants en économie sociale et solidaire (TIESS-OLT)</p> <p>Université Laval</p> <p>Université du Québec à Rimouski</p>
<b>Atlantic Provinces / Provinces atlantiques</b>	<p>Agriculture et agro-alimentaire Canada</p> <p>Alliance for Commercialization of Canadian Technologies (ACCT)</p> <p>Association canadienne des administrateurs de recherche universitaire (ACARU)</p> <p>Association canadienne des ressources hydriques</p> <p>Association canadienne pour la Commercialisation des Technologies (ACCT)</p> <p>Association of University Technology Managers (AUTM)</p> <p>Atlantic Provinces Community College Consortium (APCCC) - Applied Research Network</p> <p>Atlantic Welding Network</p> <p>Atlantic Wine Institute</p> <p>BioAtlantech</p> <p>Canadian Association of University Research Administrators (CAURA)</p> <p>Canadian Association of Research Ethics Boards (CAREB)</p> <p>Canadian Foundation for Climate and Atmospheric Sciences (CFCAS) - 1P3</p> <p>Canadian Police Knowledge Network</p> <p>CARET (IBM) Research &amp; Development Committee</p> <p>C-Clear</p> <p>Centre de recherche et de développement en éducation (CRDÉ) de l'Université de Moncton</p> <p>Conseil national de recherches du Canada (CNRC) - PARI</p> <p>Colleges &amp; Institutes Canada - National Research Advisory Committee (NRAC)</p> <p>Colleges &amp; Institutes Canada - Research Network</p>



Comité de la chaîne de valeur des bioproduits  
 Comité directeur sur la recherche postsecondaire du Nouveau-Brunswick  
 Conseil Atlantique pour la bioénergie (CAB)  
 Conseil canadien de protection des animaux (CCPA)  
  
 Conseil national de recherches du Canada (CNRC) - Programme d'aide à la recherche industrielle (PARI)  
 Conseil de conservation des sols du Canada  
 Conseil de recherches en sciences naturelles et en génie du Canada (CRSNG)  
 Conseil sur la recherche et la productivité du Nouveau-Brunswick  
 Consortium des collèges communautaires des provinces de l'Atlantique - sous groupe de recherche  
 Flintbox.com  
 Geomatics Association of Nova Scotia  
 Institute for Ocean Research Enterprise  
 National Register of Access Consultants (NRAC)  
 NCE-Capsnet  
 NSERC Atlantic Advisory Committee  
 NSERC Strat-Aware  
 Nova Scotia Research and Innovation Trust Provincial Research Advisory Committee  
 Offshore Energy Research Association  
 Réseau Atlantique de recherche en bio-raffinage  
 Regional Adaptation Collaboratives - Atlantic Climate Adaptation Solutions  
 Sous-comité conjoint (CCNB/Université de Moncton) sur la recherche  
 Springboard Atlantic Inc.  
 Tucker Park Collaborative Group

**APPENDIX / ANNEXE 5**

**2013-2014 Applied Research Environmental Scan / Enquête sur les activités de recherche appliquée 2013-2014**

**Partnerships with Universities by Province/Territory / Partenariats avec les universités, par province/territoire**

<b>57 Colleges have partnerships with 89 Universities / 57 collèges ont des partenariats avec 89 universités</b>		
<b>Province/ College/ Collège</b>	<b>University / Université</b>	<b>Area of Research / Domaine de recherche</b>
<b>Newfoundland / Terre-Neuve-et-Labrador</b>		
<i>College of the North Atlantic</i>	Memorial University of Newfoundland	
<b>Prince Edward Island / Île-du-Prince-Édouard</b>		
<i>Holland College</i>	University of Prince Edward Island	All research areas
<b>New Brunswick / Nouveau-Brunswick</b>		
<i>New Brunswick Community College</i>	University of New Brunswick	Mobile First Technology
	University of Moncton	Airborne LiDAR (light detection & ranging) technology
<i>Collège communautaire du Nouveau-Brunswick</i>	Université Acadia	Viticulture
	Université Dalhousie	Viticulture
	Université de Moncton	Aquaculture, Science de la santé
	Université Saint Mary's	Viticulture
<b>Nova Scotia / Nouvelle-Écosse</b>		
<i>Nova Scotia Community College</i>	Acadia University	Analytics and Optimization
	Cape Breton University	Analytics and Optimization
	Dalhousie University	Analytics and Optimization
	Mount Saint Vincent University	Analytics and Optimization
	St. Francis Xavier University	Analytics and Optimization
	Saint Mary's University	Analytics and Optimization
<b>Québec</b>		
<i>Cégep André-Laurendeau</i>	University du Québec à Montréal	Projet de recherche inter-ordres dans le domaine de la recherche sur l'enseignement collégial
<i>Dawson College</i>	Concordia University	Pedagogical Research
	Université de Montréal	History research, math research pedagogical research
	Université du Québec à Montréal	History research
	McGill University	Pedagogical Research
<i>Collège Edward-Montpetit</i>	École de technologie supérieure	Caractérisation des site contaminés
	Université Laval	Littérature
	Université de Montréal	Immigration et réussite, Musique
	Université du Québec à Montréal	Histoire
<i>Cégep Garneau</i>	Université Laval	Sciences de l'éducation
<i>Cégep de la Gaspésie et des Îles</i>	Université du Québec à Rimouski	
<i>Cégep de Jonquière</i>	Université Laval	
	University McGill	Innovation sociale
	Université du Québec en Abitibi-Témiscamingue	Innovation sociale
	Université du Québec à Chicoutimi	Innovation sociale; technologies des énergies renouvelables; phycomotricité
	Université du Québec à Rimouski	Innovation sociale
<i>Collège Montmorency</i>	Université de Toronto	Innovation sociale
	Université du Québec à Montréal	Kinésiologie: évaluation de l'efficacité des appareils orthoprotétiques; Philosophie: outils informatiques d'autoapprentissage pour la lecture, l'analyse et l'écriture de textes argumentatifs ; sciences de l'éducation: développement de la compétence liée à la relation éducatrice-parent en éducation préscolaire
	Télé-Université	Outils multimédias en ligne pour soutenir les apprentissages en comptabilité. Applications pédagogiques de la conception universelle de l'apprentissage
<i>Cégep de Rivière-du-Loup</i>	Université du Québec à Rimouski	Outils multimédias en ligne pour soutenir les apprentissages en comptabilité.
<i>Cégep Saint-Jean-sur-Richelieu</i>	Université du Québec à Rimouski	Programme de Technologie de l'électronique industrielle dans le domaine de l'automatisation et de la robotique.
<i>Cégep de Saint-Jérôme</i>	Université du Québec à Montréal	Sciences de l'éducation
	École Polytechnique de Montréal	Nanocomposites
<i>Cégep de Sherbrooke</i>	Université Laval	Réalisation d'une hydrolienne oscillante
	Université de Sherbrooke	Molécules organiques chimie; Didactiques des mathématiques; Synthèse intégrale (mathématiques); Pollution lumineuse; Français (lecture et écriture); Robotique; Électromécanique
<i>Cégep de Trois-Rivières</i>	Université Laval	Dynamique interstellaire
	Université de Montréal	Intégration des TIC dans l'enseignement; apprentissage actif
<i>Vanier College</i>	Université du Québec à Trois-Rivières	Pédagogie de l'enseignement supérieur; intégration des étudiants ayant des besoins particuliers
	McGill University	Communications
<i>Cégep de Victoriaville</i>	Concordia University	Pedagogy
	Université de Sherbrooke	
	Université Laval	
<i>Institut de tourisme et d'hôtellerie du Québec</i>	Université du Québec à Trois-Rivières	
	Université Laval	Sciences et gastronomie
<b>Ontario</b>		
<i>Algonquin College</i>	Carleton University	Entrepreneurship; Crash test dummy 3; Aviation
	University of Ottawa	Entrepreneurship
<i>Collège Boréal</i>	Université Laurentienne	
<i>Canadore College</i>	Brock University	Health Sciences
	Lakehead University	Health Sciences
	Laurentian University	Health Sciences
	MacMaster University	Health Sciences

	Nipissing University	Health Sciences
	Ottawa University	Health Sciences
	Queens University	Mental Health
	Trent University	Health Sciences
	University of Western Ontario	Health Sciences
	University of Windsor	Health Sciences
	University of Ontario Institute of Technology	Health Sciences
	York University	Health Sciences
Centennial College	York University	Connected Wellness project
Conestoga College	Laurentian University	Electronic Systems Engineering
	University of Toronto	Seniors' care
	University of Waterloo	Seniors' care
Confederation College	Lakehead University	Biomass Energy
Durham College	Ryerson University	Cognitive Science
	University of Ontario Institute of Technology	Outcomes based measurement, Cognitive Science
Fanshawe College	Western University	Information & Communication Technologies
George Brown College	University of Toronto	Mechanical & Engineering Department Environmental Science & Technologies <u>Aeronautics Team - aerospace technologies</u>
	Ryerson University	Building Technology
	York University	Medical and Life Sciences
	Brock University	Creative & Performing Arts
Humber College	Carleton University	Drinking water filtration technology
	University of Toronto	Clinical Anatomy
	Carleton University	Nutrition and food science
La Cité collégiale	Carleton University	Nutrition and food science
Lambton College	University of Calgary	Materials, Energy systems optimization, Control
	University of Waterloo	Hydrogen and Fuel Cells
	University of Toronto	Hydrogen and Fuel Cells
	Western University	Water & waste water, bio-chemicals, optimization, CFF
Mohawk College	University of Hawaii	Computer Science
	University of Ontario Institute of Technology	Computer Science
	McMaster University	Nursing, Department of Family Medicine: BTEch: School of Engineering: Auto Resource Centre; OSCAR; Miircam: MOHLTC HSRF
Niagara College	Brock University	Ontario Grapes & Wine Industry Climate Change
	University of Waterloo	Food & Beverage Technology Validation
Northern College	Laurentian University	Nursing Research

<i>St. Clair College</i>	University of Windsor	Diesel engine efficiency & refrigeration unit research
<i>Seneca College</i>	York University	Digital Media
	McMaster University	Digital Media
	Western University	Aviation
<i>Sheridan College Institute of Technology</i>	University of Waterloo	Digital Media
	York University	3D FLIC initiative
	McMaster University	Additive manufacturing
	University of Toronto	Additive manufacturing
	Ryerson University	Additive manufacturing
<b>Manitoba</b>		
<i>Red River College</i>	University of Winnipeg	Project specific
	University of Manitoba	Project specific
	British Columbia Institute of Technology	Green Buildings & Construction: Smart Grid & Electric Vehicles: Information & Communications Technology; Aerospace & Manufacturing.
	Catholic University of Uruguay	Electric Vehicle Technology: Information and Communications Technology: and Aerospace
	Sao Paulo Federal Institute of Education Science & Technology	Civil Engineering Technology; Renewable Fuels: Aerospace; Manufacturing; and Information & Communications Technology
	University ORT Uruguay	Green Buildings & Construction; Wood Construction; Information & Communications Technology; and Simulator
	Pontificia Universidade Católica do Rio Grande do Sul (PUCRS)	Green Buildings; Digital Technology; and Advanced Manufacturing
University College of the North	L'École d'ingénierie et Travaux de la Construction (ESITC Caen)	Sustainable Building Materials; Reuse & Recycling of Natural Fibers; Shellfish Aggregates in Building Materials; and Environmental Impact of Building Materials.
	Brandon University	Social innovation research in education; Aboriginal storytelling
	University of Manitoba	Water management & water security on First Nations; Aboriginal storytelling; Social innovation - success factors for female postsecondary students; Social innovation - homelessness in northern Manitoba; Environmental sciences - teaching and learning; Social sciences - marginalized populations; Social innovation - natural resource management
	Trent University	Water management & water security on First Nations
	University of Winnipeg	Purchasing experience of cross-cultural consumers in northern Manitoba; Northern Horizons: contact, culture and education in Canada
	University of Saskatoon	Aboriginal storytelling; Northern Horizons: contact, culture and education in Canada; Humanities recherche - Aboriginal focus
	University of Toronto	Social sciences - marginalized populations
	Algoma University	Northern Horizons: contact, culture and education in Canada
	Royal Roads University	Social innovation - use of photo voice in natural resource management
	University of British Columbia	Humanities recherche - ecocriticism
	University of Arizona	Social sciences - marginalized populations
	University of Utah	Social sciences - marginalized populations
	University of Amsterdam	Social sciences - marginalized populations
	Federal University of Pará (Brazil)	Research & development for the establishment of a PhD program in Anthropology
	University of Ireland	Humanities research - popular culture
	Washburn University	Humanities research - popular culture
<b>Saskatchewan</b>		
<i>Saskatchewan Polytechnic</i>	University of Saskatchewan	IMII Project, Occupational Health & Safety
<b>Alberta</b>		
<i>Bow Valley College</i>	Mount Royal University	Effects & Implications of Environmental Disasters on the Family (Social Sciences & Humanities)
<i>Lakeland College</i>	University of Alberta	Commercial deployment of biochar production technologies
<i>Medicine Hat College</i>	University of Alberta	Biotechnology research
<i>Northern Alberta Institute of Technology (NAIT)</i>	University of Alberta	Green Chemistry Boreal Research SSHRC Professional Learning of Teachers
	University of Manitoba	Talent & Leadership
	University of Calgary	SSHRC Social Exchange Relationships
	Laval University	Boreal Research
	University of Virginia Commonwealth	SSHRC Social Exchange Relationships
<i>Olds College</i>	University of Calgary	Water & Algae
	University of Alberta	Livestock & Genomics Research Livestock Gentec Agri-Food Discovery Place Apparel Innovation
	University of Lethbridge	Biological Sciences
	Mount Royal University	Water
<i>Red Deer College</i>	University of Alberta	Medical Devices
	University of Calgary	Kinesiology & Medical Devices
<i>SAIT Polytechnic</i>	University of Calgary	PCB Soil Remediation
	Brock University	Pe-commercialization of prototype hockey skate lace extender
<b>British Columbia / Colombie-Britannique</b>		
<i>British Columbia Institute of Technology</i>	Concordia University	Building Science
	McMaster University	Prosthetics & Orthotics
<i>Camosun College</i>	University of Victoria	Social Innovation
	Vancouver Island University	Social Innovation
<i>College of New Caledonia</i>	University of Northern British Columbia	Forestry Research
<i>Justice Institute of British Columbia</i>	Sir Wilfred Laurier University	Rural disaster resilience planning
	Royal Roads University	Rural disaster resilience project
	University of British Columbia	Simulation Training & Exercise Collaboratory

Kwantlen Polytechnic University	Umea University (Sweden)	Interprofessional simulations
	Flinders University (Australia)	Technology-based police simulations
	University of British Columbia	Design & plan of bio-regional food systems & Bio-control research for sustainable horticulture
	Fraser Valley University	Design & plan of bio-regional food systems & Bio-control research for sustainable horticulture
	Vancouver Island University	Bio-control research for sustainable horticulture
	University of Northern British Columbia	Design & plan of bio-regional food systems
	Ben Gurion University of the Negev (Israel)	Design & plan of bio-regional food systems
	Wilfrid Laurier University	KPU - Food: Locally Embedded, Globally Engaged
	McGill University	KPU - Food: Locally Embedded, Globally Engaged
	Laval University	KPU - Food: Locally Embedded, Globally Engaged
	Lakehead University	KPU - Food: Locally Embedded, Globally Engaged
	Memorial University	KPU - Food: Locally Embedded, Globally Engaged
	University of Alberta	KPU - Food: Locally Embedded, Globally Engaged
North Island University	University of Victoria	Sustainable aquaculture
	Dalhousie University	Sustainable aquaculture
Okanagan College	University of British Columbia	Various including Education and Political Science
Selkirk College	University of Victoria	BCNRI Enhancing Education Capacity Palliative Approach & Rural Nursing
	University of British Columbia	BCNRI Enhancing Education Capacity Palliative Approach & Rural Nursing
	Trinity Western University	BCNRI Enhancing Education Capacity Palliative Approach & Rural Nursing
	Memorial University	Canadian Regional Development
	Simon Fraser University	Canadian Regional Development
	University of Guelph	Canadian Regional Development
	Concordia University	Canadian Regional Development
	Mount Royal University	Banff & Mount Royal Institute for Scholarship of Teaching - Teaching and Learning
<b>Yukon</b>		
Yukon College	University of Saskatchewan	Soil bio-remediation
	University of Alberta	Glacier project
	Laval University	Permafrost research
	Carleton University	Permafrost research
	Ottawa University	Permafrost research



### British Columbia

- British Columbia Institute of Technology (BCIT)
- Camosun College
- Capilano University
- Collège Éducacentre
- College of New Caledonia
- College of the Rockies
- Douglas College
- Justice Institute of British Columbia
- Kwantlen Polytechnic University
- Langara College
- Native Education College
- Nicola Valley Institute of Technology
- North Island College
- Northern Lights College
- Northwest Community College
- Okanagan College
- Selkirk College
- University of the Fraser Valley
- Vancouver Community College
- Vancouver Island University

### Alberta

- Bow Valley College
- Grande Prairie Regional College
- Keyano College
- Lakeland College
- Lethbridge College
- Medicine Hat College
- NorQuest College
- Northern Alberta Institute of Technology (NAIT)
- Northern Lakes College
- Olds College
- Portage College
- Red Deer College
- SAIT Polytechnic

### Manitoba

- Assiniboine Community College
- École technique et professionnelle, Université de Saint-Boniface
- Red River College of Applied Arts, Science and Technology
- University College of the North
- Manitoba Institute of Trades and Technology

### Saskatchewan

- Carlton Trail Regional College
- Cumberland College
- Gabriel Dumont Institute of Native Studies and Applied Research
- Great Plains College
- North West Regional College
- Northlands College
- Parkland College
- Saskatchewan Indian Institute of Technologies
- Saskatchewan Polytechnic
- Southeast Regional College

### Ontario

- Algonquin College
- Cambrian College
- Canadore College
- Centennial College
- Collège Boréal
- Conestoga College Institute of Technology and Advanced Learning
- Confederation College
- Durham College
- Fanshawe College
- Fleming College
- George Brown College
- Georgian College
- Humber College Institute of Technology & Advanced Learning
- La Cité
- Lambton College
- Loyalist College
- The Michener Institute for Applied Health Sciences
- Mohawk College
- Niagara College
- Northern College
- Sault College
- Seneca College
- Sheridan College Institute of Technology and Advanced Learning
- St. Clair College
- St. Lawrence College
- Université de Guelph, Campus d'Alfred
- University of Guelph, Kemptville Campus

### Quebec

- Cégep André-Laurendeau
- Cégep de Baie-Comeau
- Cégep Beauce-Appalaches
- Cégep de Chicoutimi
- Cégep de Drummondville
- Cégep de Jonquière
- Cégep de l'Abitibi-Témiscamingue
- Cégep de l'Outaouais
- Cégep de la Gaspésie et des Îles
- Cégep de La Pocatière
- Cégep de Matane
- Cégep de Rivière-du-Loup
- Cégep de Sainte-Foy
- Cégep de Saint-Félicien
- Cégep de Saint-Hyacinthe
- Cégep de Saint-Jérôme
- Cégep de Saint-Laurent
- Cégep de Sept-Îles
- Cégep de Sherbrooke
- Cégep de Thetford
- Cégep de Trois-Rivières
- Cégep de Victoriaville
- Cégep du Vieux Montréal
- Cégep Édouard-Montpetit
- Cégep Garneau
- Cégep John Abbott College
- Cégep Limoilou
- Cégep Marie-Victorin
- Cégep régional de Lanaudière
- Cégep Saint-Jean-sur-Richelieu
- Champlain Regional College
- Collège Ahuntsic
- Collège André Grasset
- Collège d'Alma
- Collège de Maisonneuve
- Collège de Rosemont
- Collège Gérard-Godin
- Collège LaSalle
- Collège Lionel-Groulx
- Collège Mérici
- Collège Montmorency
- Collège Shawinigan
- Dawson College
- Heritage College
- Institut de technologie agroalimentaire - Québec
- Institut de tourisme et d'hôtellerie du Québec
- Vanier College

### New Brunswick

- Collège communautaire du Nouveau-Brunswick (CCNB)
- New Brunswick College of Craft and Design
- New Brunswick Community College (NBCC)

### Nova Scotia

- Université Sainte-Anne - Collège de l'Acadie
- Dalhousie Agricultural Campus of Dalhousie University
- Nova Scotia Community College

### Prince Edward Island

- Collège Acadie Î.-P.-É.
- Holland College

### Newfoundland and Labrador

- Centre for Nursing Studies
- College of the North Atlantic
- Marine Institute

### Nunavut

- Nunavut Arctic College

### Northwest Territories

- Aurora College

### Yukon

- Yukon College