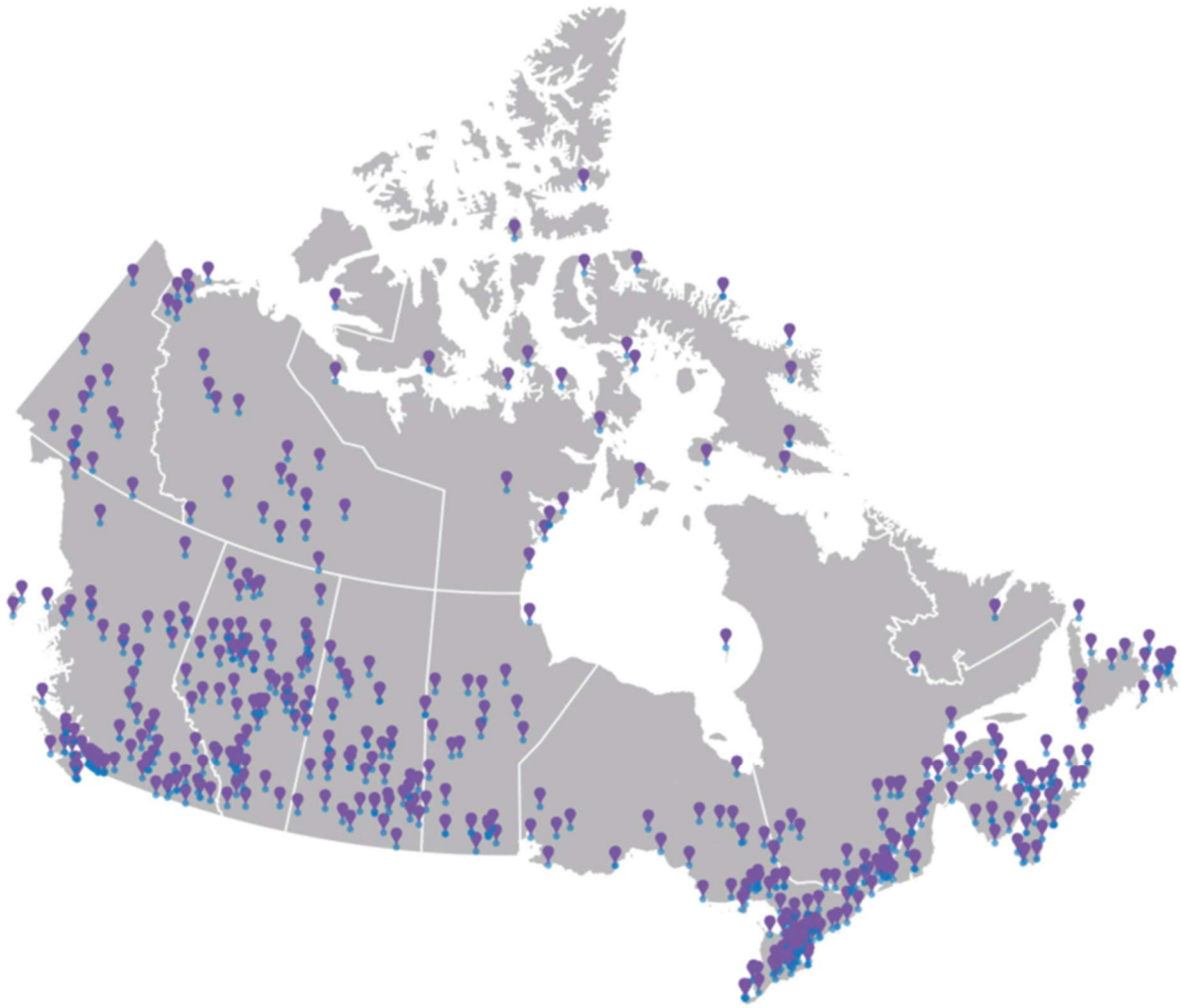
Colleges and Institutes Canada
Collèges et instituts Canada

Canada's Colleges and Institutes –
Skills and Innovation to respond to Climate Change

Submission to the House of Commons Standing Committee on Finance –
Pre-budget Consultations in Advance of Budget 2020

August 2019



Recommendations

1. Expand SME participation in the R&D ecosystem with an investment of $40 million per year in business innovation engagement services based in colleges, institutes and polytechnics.

2. Make an ongoing investment of $15 million per year in social innovation research at colleges, institutes and polytechnics, with a specific stream for Indigenous community-led research.

3. Increase investments in retraining and support mechanisms that meet the needs of individuals, employers, and training providers, including the use of Prior Learning Assessment and Recognition services.

4. Support the development of a national framework to promote the integration of climate change adaptation and mitigation into postsecondary education and reskilling/upskilling programs to align with employers' emerging needs.

5. Increase funding for Indigenous peoples to access skills upgrading and post-secondary education and provide wraparound supports for Indigenous learner success.

6. Invest in postsecondary education infrastructure to make campuses greener, more energy efficient and be better equipped to respond to future skills development needs and advance on Indigenous education, entrepreneurship development and innovation.

7. Increase support for skills development and applied research to support climate change adaptation in developing countries.

Introduction

Over 95% of Canadians live within 50km of a college, institute, cegep or polytechnic.[1] With their reach from coast to coast to coast, these institutions have an important role in mobilizing Canadians and their communities to respond to current and future challenges, including climate change and the transition to a low carbon economy.

The UN Sustainable Development Goals (SDGs) for 2030 provide a comprehensive framework for the action required to support climate change adaptation and mitigation as this is addressed explicitly through several SDGs. Colleges and Institutes Canada (CICan) members are responding to the calls for climate action coming from their campuses and communities. To support the achievement of Canada's SDG commitments, CICan is engaging members to identify common approaches and monitor outcomes. The SDG targets provide a roadmap for colleges to strengthen community-led innovation for sustainability, promote skills development to contribute to climate change adaptation resulting in improved health, social and economic outcomes.

CICan offers seven recommendations which highlight how colleges can contribute more to national efforts on the implementation of the 2030 Agenda and help mobilize and empower people and communities to find solutions that have local, national and international impact.

Mobilize Communities through Innovation

Recommendation 1: Expand SME participation in the R&D ecosystem with an investment of $40 million per year in business innovation engagement services based in colleges, institutes and polytechnics.

SMEs are key drivers of the Canadian economy and must be more engaged in R&D to foster innovation across all sectors and to address key challenges such as climate change. Canada has a network of colleges with growing applied research capacity mandated to serve the R&D needs of companies and community partners. In 2017-18 colleges supported over 7,300 research partnerships, the vast majority with SMEs. With a $40M investment in college and institute business innovation engagement services, independent of project-based research grants, colleges can double of the number of SMEs engaged in R&D activities in three years. This recommendation supports the pre-budget submission of the *College Applied Research Taskforce*, comprising the following national and regional associations: CICan; Tech-Access Canada; Association pour la recherche au collégiale; Atlantic Colleges Atlantique; BC Colleges; Fédération des cégeps and Synchronex; as well as the submission by Polytechnics Canada. The Taskforce submission, based on broad consultation with colleges and their research centres, identifies the outcomes this $40M investment will yield by improving SME innovation and complementing existing federal programs aimed at supporting Canadian companies.

Recommendation 2: Make an ongoing investment of $15 million per year in social innovation research at colleges, institutes and polytechnics, with a specific stream for Indigenous community-led research.

Social innovation improves quality of life for Canadians and their communities. The engagement of the public and non-profit sectors in social innovation research with colleges can generate significant social and economic benefits that help Canada progress on implementing its 2030 Agenda. To support the Calls to Action of the Truth and Reconciliation Commission, a specific stream for Indigenous community-led research is needed to tackle priorities such as climate change, improving health outcomes and community sustainability. Social innovation led by colleges also results in new and improved approaches for supporting newcomer integration, mental health, crime reduction, youth services and support for vulnerable populations.

[1] References to "colleges" refer collectively to all publicly funded colleges, institutes, polytechnics and cegeps.

Mobilize People for a Changing Economy

Recommendation 3: Increase investments in retraining and support mechanisms that meet the needs of individuals, employers and training providers, including the use of Prior Learning Assessment and Recognition services.

The changing economy and the need to respond to climate change highlight employers' calls for an adaptable, qualified workforce. In-demand qualifications for the future of work include trade certifications to construct green infrastructure, digital certifications for operating new technology, and professional certifications that demonstrate an ability to adapt to changing work environments[2].

The federal government supports employability by providing access to postsecondary education (PSE) and skills training. Recent investments in the Canada Training Benefit and Future Skills Centre, and ongoing programs such as the Canada Student Loans Program, EI training programs and apprenticeship support funding will be strengthened if supports are streamlined, and there is better coordination between the needs of individuals, employers and training providers.

To help streamline access and completion of skills training, Prior Learning Assessment and Recognition (PLAR) services can be added as an eligible training expense through federal skills and employment programs. Many Canadians have pre-existing skills, but face barriers due to a lack of recognition and certifications. PLAR services, which are widely offered at colleges, allow those with knowledge, skills and practical experience or prior education acquired in Canada or abroad to gain credit towards new credentials. Canadians who require reskilling and upskilling would benefit from shorter training times, lower costs and a faster return to the workforce.

To strengthen Canada's training infrastructure, it is essential that the federal government engage employers and training providers more effectively and adopt a more coordinated approach for creating a culture of lifelong learning. Colleges have skills development approaches in place that can be tailored and scaled to support these efforts, including competency-based frameworks; essential skills training; PLAR; work-integrated learning; flexible, short-term and online delivery options; and workplace training.

Recommendation 4: Support the development of a national framework to promote the integration of climate change adaptation and mitigation into postsecondary education and reskilling/upskilling programs to align with employers' emerging needs.

The Bank of Canada identified environmental issues as one of six key vulnerabilities in Canada's economy in 2019, specifically citing "the transition risks of adapting to a lower carbon economy".[3] CPA Canada highlighted the need in all businesses for environmental mitigation strategies, and adaptation to the risks and requirements of changing environmental conditions.[4]

Adaptation to the green economy will require "green skills" across most occupations. Examples of these skills are identified in CICan's *Green Skills for Sustainable Economic Growth* report. These include familiarity with green technology, green values and practices, and knowledge for greening existing jobs. As part of federal investments in skills development to support Canadians' transitions to the changing nature of work and respond to climate change, Canada should have a national framework that guides the integration of green skills into PSE and skills training programs. This green skills framework should align with the updated essential skills framework being developed by ESDC.

[2] RBC Humans Wanted, 2018

[3] Bank of Canada, Financial System Review – 2019 – Vulnerability 5: Climate Change

[4] CPA Canada, 2016: Climate change and Canadian business: The good, the bad and the realistic

Recommendation 5: Increase funding for Indigenous peoples to access skills upgrading and post-secondary education and provide wraparound supports for Indigenous learner success.

Within the context of a changing economy due to technological disruption and climate change, it is imperative that Indigenous peoples have full access to skills upgrading and PSE to access jobs of the future and contribute to the sustainability of their communities.

Access to financial assistance continues to be a key barrier to Indigenous peoples' participation in PSE and further increases are needed to federal funding programs for First Nations, Métis and Inuit students. There is also a need to strengthen pathways into PSE for Indigenous people, by ramping up support for skills upgrading, in particular for the high proportion who have not completed high school and need upgrading to gain equivalencies before starting PSE. There is a persistent gap in high school attainment with 26% of Indigenous peoples aged 24-64 with no high school diploma, more than double that of non-Indigenous people (11%).[5]

The federally-funded Northern Adult Basic Education (NABE) program delivered by the three territorial colleges is an excellent example of how college and institute upgrading can be effective in providing prerequisites to enter PSE, including apprenticeship training, and result in improved employment rates. NABE is a model that could be replicated at colleges across the country that serve rural, remote and Northern communities. Given that over half of the total Indigenous population (51.8%) live in metropolitan areas,[6] upgrading and improved pathways into PSE are also critical for Indigenous peoples who live in urban centres.

With 86% of Indigenous people living within 50km of a campus or learning facility, colleges are the main access point for PSE. They offer over 300 PSE programs (certificates, diplomas, bachelor's degrees and postgrad certificates) tailored to the needs of Indigenous learners and communities. Indigenous learners at colleges would benefit from increased funding for wraparound support services and more program options, including language revitalization.

Mobilize Institutions by Greening Campuses

Recommendation 6: Invest in postsecondary education infrastructure to make campuses greener, more energy efficient and better equipped to meet future skills development needs and advance on Indigenous education, entrepreneurship development and innovation.

Colleges produce a highly skilled and competitive workforce for Canada's employers and are key to increasing access to PSE and skills training for people from vulnerable groups. Investments in skills and innovation infrastructure have not kept pace with changing needs and technology. The $675M colleges received from the $2B Post-secondary Institutions Strategic Investment Fund helped but there remains an acute need to upgrade outdated infrastructure and address deferred maintenance on campuses. A new investment in PSE infrastructure would enable colleges to make necessary upgrades to provide greener, more energy efficient facilities that support skills development, innovation through applied research, entrepreneurship development and provide Indigenous learning and gathering spaces that support learner success.

[5] Statistics Canada, Census 2016
[6] Ibid

Mobilize International Partnerships to support a Global Climate Change Response

Recommendation 7: Increase support for skills development and applied research to support climate change adaptation in developing countries.

Climate change impacts are felt around the world, with even more significant consequences for developing countries. UNESCO-UNEVOC engages international partners to strengthen technical/vocational education and training (TVET) systems, including specific efforts to green TVET systems to shift towards a sustainable future and respond to climate change, degradation of ecosystems and social inequities.[7]

Many Canadian organizations, including CICan, have international partnerships with organizations and PSE institutions around the world that could be mobilized to support climate change adaptation through the exchange of approaches and best practices. Canadian international development assistance can capitalize on existing Canadian expertise and know-how to support developing country partners in greening TVET systems. Developing skills and building innovation capacity through applied research will support climate change adaptation responses that meet local needs.

Conclusion

This submission highlights how colleges can help mobilize communities, people, institutions and international partners to address future challenges, including to address climate change impacts. CICan and its members look forward to supporting Canada's progress in meeting SDG targets by working collaboratively with partners in their communities, nationally and internationally to strengthen skills and innovation infrastructure and contribute to a more sustainable and prosperous future.

[7] UNESCO-UNEVOC (2015) *Skills for Work and Life*, post-2015.