



KEEPING CANADA COMPETITIVE BY SUPPORTING COLLEGES, INSTITUTES AND POLYTECHNICS

Canada is not doing enough to support the key contributors to Canada's innovation, productivity and competitiveness: colleges, institutes, polytechnics, cégeps and university colleges.

Although Canada is a leader in per capita public investment in pure research, it lags behind our competitors in supporting industry driven research and development, the key step in transferring knowledge from the lab to the marketplace and the world of new products, materials, processes and jobs. It's a step we cannot afford to miss.

Canada's 150 colleges, institutes and polytechnics maintain campuses in 1,000 communities. No other institutional infrastructure exists with this breadth and impact. And no other institution is as connected to the network of small and medium-sized companies that form the backbone of Canada's economy.

Colleges, institutes and polytechnics are key contributors to Canada's innovation system, helping businesses start, develop and grow and providing students with the advanced skills needed to keep Canada competitive. They are also leaders in finding applications for scientific research and transferring technology to the marketplace. Yet a chronic shortage of funding is limiting their capacity to perform these crucial functions and meet the needs of Canada's economy.

To its credit, the federal government did target post-secondary institutions for capital investment as part of its stimulus strategy, and the investments delivered through the Knowledge Infrastructure Program (KIP) have helped. But the two-year, \$600-million program (\$1.2 billion including the provincial component) falls short of the estimated \$7 billion needed to meet space and equipment shortfalls in our nation's colleges.

Even before the recession, long waiting lists kept thousands of qualified applicants from acquiring the advanced skills they needed to find a job. Waiting lists are even longer now, as the newly unemployed flock to colleges to re-skill. Applications for fall 2009 have increased dramatically, with some colleges reporting a surge of over 22 percent. Many other institutions have reported increases of 15 to 20 per cent. Persistent space shortages and out-of-date equipment undermine their capacity to educate students and support innovation, limiting Canada's ability to compete

Building on 40 years of education in advanced skills, these institutions are increasingly active in industry-driven research. Small- and medium-sized enterprises, the largest contributors to Canada's employment growth, regularly turn to local colleges and institutes for product and process innovation, research and development. Faculty and students partner with these businesses to develop new or improved products, processes and services for commercialization, technology transfer and productivity.

Industry-driven research in turn extends and enhances the capacity of colleges, institutes, polytechnics and cégeps to turn students into highly skilled workers by providing a rich learning environment that provides them with real-world challenges, hands-on training, business experience and advanced skills training.

What's more, these institutions focus on areas vital to Canada's national economic interest, including environmental science and technologies, natural resources and energy, health, and related life sciences and technologies, information and communications technologies, and manufacturing technologies.

This focus, along with experience in product development, prototyping, business incubation, model simulations and commercialization, enables colleges, institutes, polytechnics and cégeps to apply science to creating products, processes and materials people can use and help companies that can take them to market. More than any other institutions, they are essential to improving Canada's productivity and competitiveness.

But these vital drivers of the innovation necessary to job creation and economic growth do not receive the support they need. With our economy slowly starting to recover, now is the time to fix this disparity.

Two issues must be addressed: the need for capital investment and support for industry-driven research partnerships.

Capital investment

First, most colleges, institutes, polytechnics and cégeps are already operating at or near capacity and cannot accommodate the many students who want to attend. Last year the Association of Canadian Community Colleges (ACCC) estimated that \$7.4 billion was needed to equip these institutions to meet the demand for skilled workers in the next decade.

The Knowledge Infrastructure Program has been an important first step toward meeting the most pressing needs, but more investment will be required to create the institutional training capacity needed to turn out enough highly skilled people to meet the needs of a growing Canadian economy.

Given that KIP projects must be completed within two years, and that colleges, institutes, polytechnics and cégeps received only about 30 per cent of the \$2-billion federal contribution, many institutions chose to meet urgent maintenance needs rather than expand capacity or significantly modernize facilities.

The ACCC is therefore calling on the federal government to expand and extend KIP funding for colleges, using the same long-term investment parameters that were the foundation of the Building Canada Plan. Specifically we are calling for a five-year program that would make \$2.5 billion available to leverage matching provincial, private-sector and institutional investments. This would bring the institutions close to meeting their estimated capital requirements for modernization and allow them to help meet the need for advanced skills of an economy in transition.

Applied research partnerships

Second, while basic research, conducted today primarily in universities, is essential and may eventually benefit people and the economy, we are not directing enough support to applied research partnerships between industry and colleges, institutes, polytechnics and cégeps. Colleges and institutes support the private sector's need for applied research, product and process innovation, commercialization and technology transfer.

The College and Community Innovation Program (CCIP), administered by the Natural Sciences and Engineering Research Council (NSERC), is the sole federal contributor to these partnerships, and the \$48 million over five years available through the CCIP is a fraction of the estimated \$2.9 billion the federal government spends on research each year.

For these institutions to acquire enough research and development capacity to fuel further growth, they need additional investments to support their partnerships with industry and to provide opportunities for college students to participate robustly in innovation and applied research. Without these investments, institutions will be unable to deliver the boost Canada needs in innovation, technology transfer and advanced skills development.

What's needed is federal government investment in the form of stable, long-term financial support and equitable access to funding opportunities for colleges, institutes and polytechnics. This support, combined with the increased private-sector participation that it would leverage, has the potential to kick start a new dynamic in Canadian research and development.

To achieve this, ACCC is calling on the federal government to increase its research and development funding by five per cent, or approximately \$ 150 million, and dedicate this to create an applied research partnerships fund to foster new research and development synergies between industry and colleges, institutes, polytechnics, cégeps and university colleges.