

January 7, 2009

The Honourable Jim Flaherty  
Minister of Finance  
House of Commons  
Ottawa, Ontario  
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Re: Polytechnics Canada Submission Budget 2009

Dear Minister,

With Canada facing serious and growing unemployment in many of its key industrial sectors, now is the time to use the challenge of economic uncertainty to upgrade skills in our economy. The country must focus in the short term on remediating basic and essential skills and create an innovative workforce inculcated with an “innovation mindset”.

Moreover, as acknowledged in *Mobilizing Science and Technology to Canada’s Advantage*, Canada must, to remain competitive, encourage the private sector to compete on the basis of products, processes, services and technologies.

Technological, problem solving and team-building skills are critical to achieving both of these objectives. The current economic crisis only serves to emphasize the need to invest in the “infrastructure of the mind” as well as bricks and mortar in order to compete in the new knowledge economy.

Canada’s polytechnics offer a powerful untapped potential to upgrade the skills needed in our economy while at the same time helping businesses, particularly SMEs, transform innovation into value by producing, marketing and delivering products and processes on a global scale.

The seven members of Polytechnics Canada - BCIT, SAIT Polytechnic, Conestoga College, George Brown College, Humber College, Sheridan Institute and Seneca College – offer education that combines the hands – on approach of a college education and the depth of study usually associated with a university program. At the end of a polytechnic education, graduates emerge into the workforce with practical experience in their chosen field and a degree. In addition to degree level programming, polytechnics also offer certificate, diploma, apprenticeship and post-graduate credentials.

Integral to the polytechnic education is applied research. The true benefit of applied research is to drive leading – edge new knowledge into the curriculum. Polytechnics partner with businesses to provide hands-on research experience to students working toward a degree or other credentials. These applied research projects help solve industry problems, while giving students the innovation skills so important to helping

businesses, particularly SMEs, to be competitive in today's global marketplace. Polytechnics provide the important research and innovation expertise that can equip Canadian companies to leverage their own ideas and create jobs at home.

Notwithstanding their potential to help in the current economic downturn, polytechnics face systemic barriers that prevent them from responding as effectively as they otherwise could. These include:

### **Faculty release time**

Polytechnics need funding to provide release time to enable teaching staff to conduct applied research activities. Currently, provincial operating grants in some jurisdictions fund only teaching time -- which means that staff do not have enough extra time to meet the demands of the increasing number of applied research projects.

### **Infrastructure**

To conduct world-class applied research activities, polytechnics need expanded buildings, labs, and equipment in addition to faculty and technical support staff to run these facilities. Building on their existing applied research infrastructure to provide timely access to both researchers and industry partners, polytechnics need funding to enhance equipment in existing facilities and funding to expand existing facilities.

### **Equipment**

Although industry partners are often willing to contribute some equipment, infrastructure funding is required to install, configure and maintain equipment as well as to modify facilities to receive the contributed equipment. Reliable funding is also needed to fill in the gaps and purchase additional equipment not readily available through industry contributions but still critical to an applied research process.

### **Turn-key funding**

Polytechnics also need access to funding that acknowledges the rapidly-evolving technology sector and the immediate problems identified by industry.

### **National centralized co-ordination**

There is no national centralized co-ordination to allow polytechnics to leverage and co-ordinate their applied research activities to the benefit of businesses, students and faculty.

### **Recommendation**

Polytechnics Canada fully supports the recommendations of both the Association of Canadian Community Colleges and the Association of Universities and Colleges of Canada that the federal infrastructure investment policy be enhanced to include facilities expansion and upgrading at Canada's colleges and universities.

Additionally, Polytechnics Canada recommends the federal government explore two additional short-term investments in skills development and applied research:

## **1. Polytechnic Skills Assessment Centres**

As we presented to Minister Finley's Stakeholder Consultation on Labour Mobility and Skills Development on December 23, with one million unemployed Canadians in need of retraining and skills upgrading, Polytechnics Canada proposes a one stop solution to match the large numbers (supply) of displaced older workers with industry demand for new skills. Specifically, the short-term solution is to create Skills Assessment Centres located at each polytechnic institute in Canada's large urban areas to provide assessment, advisement, prior learning recognition and pre-program entry skills upgrading to those who qualify for EI Part II assistance.

Polytechnics Canada and our partner training institutions across the country will identify individual skills and competency gaps and develop training plans for displaced workers. The skills assessment conducted by experienced staff/faculty will encompass three sets of skills: essential, workplace and transferable. The objective would be to meet new literacy and competency levels required by the 21<sup>st</sup> century workplace. The advisement will involve matching skill strengths with programs with new job market demands and identifying skills gaps, with a determination of which training is best suited to meet those skills gaps.

The specific output will be an individualized training plan or a learning plan for each displaced worker with clear pathways to new credential acquisition. Prior learning recognition assessment will also be part of the process. Academic upgrading in basic literacy, numeracy, computer and office skills will be available through each institute's existing upgrading programs, or where numbers warrant, through focused new upgrading. Language evaluation and training will be offered using existing services at institutes. Admission to established post-secondary education programs will be facilitated through the same office. The Centres will work on a continuous entry basis, providing rolling entry into pre-program upgrading and bridging to existing PSE programs.

A parallel process will be launched using polytechnic institutes' industry linkages, especially to Small and Medium Sized Enterprises (SMEs) to forecast local and regional job demands, to make the most use of existing coop and job placement efforts, and to up skill displaced workers to meet the applied research needs of these SMEs. SMEs in Canada are likely to see job growth in the coming years. Expanding our relations with industry based Program Advisory Committees will help to achieve this.

Polytechnics and other partner training institutions will also work with provincial agencies and entities to ensure coordination of services.

## **2. Polytechnic Applied Research Network**

As mentioned earlier, applied research is an untapped resource that can be used to upgrade the skills needed in our economy while at the same time helping businesses, particularly SMEs, transform innovation into value by producing, marketing and delivering products and processes on a global scale.

Polytechnics Canada proposes that Budget 2009 provide \$21 million for a three-year pilot project creating distributed research clusters operating as Polytechnic

Applied Research Networks (PARN) in three priority areas of research for Canada. In addition to in-kind contributions from both the polytechnics and their SME partners, the pilot project funding would provide the seven polytechnics with core seed funding to enhance their applied research capacities with the faculty release time and project-specific equipment necessary to accommodate the research needs of SMEs in the key sectors of the economy.

Each PARN would operate through centralized network coordination and decentralized delivery of applied research activities through the research offices at the polytechnics. A centralized portal tool would triage client need and match it to potential expertise at polytechnics throughout the network. The SME would be directed to the appropriate polytechnic research office(s) where the applied research and problem solving would be conducted.

The PARN host polytechnic and each of the other polytechnics will be contributing their research offices' time, administrative support staff, and industry liaisons to the project as an in-kind contribution.

The pilot project funding would be a dedicated pool of predetermined resources for research projects. The funds would be distributed to projects that meet predetermined criteria after project proposals were reviewed by an expert panel. This innovative approach would be used to fund research proposals that respond to the immediate needs of SMEs and accommodate rapid project development from conception to commercialization while teaching students essential innovation skills.

The PARN model would provide as-needed project-based funding to assist SMEs with their problems. The SME's in-kind contributions would benefit the polytechnic as researchers and students are given relevant problem solving and research experience with a local company using the latest technologies. The SME benefits by receiving access to research-ready polytechnic graduates, access to research infrastructure they do not have, and new or improved products, processes and prototypes.

Canada's polytechnics are anxious to help with the current economic crisis our country is facing. Canada's polytechnics graduate more than 30,000 highly skilled Canadians each year, and more than 90 per cent of these graduates find employment within six months. With our strategic focus on advanced technology and business skills- and our sensitivity to the needs of the marketplace – we are uniquely positioned to help Canadian business compete while providing essential innovation skills to displaced workers.

We believe that the best investment Canada can make at this time is in the “infrastructure of the mind” as represented by the innovation mindset of Canada's polytechnics.

Yours Truly,



Sharon E. Maloney, LL.B.  
Executive Director  
Polytechnics Canada