

UNIVERSITIES: PUTTING IDEAS TO WORK FOR CANADIANS

Pre-budget submission
to the Honourable James Flaherty, Minister of Finance
November 23, 2012





The mission of AUCC is to foster and promote the interests of higher education and university research. We participate in the development of public policy to find solutions to the economic and social challenges facing Canada. We work closely with governments, the private sector and the public to raise the profile of higher education.

Canada's universities put ideas to work for Canadians.

CANADA NEEDS INGENUITY, creativity, entrepreneurship, new ideas and competitive drive. We need to compete on our wits to succeed in the global economy. Canada's universities are centres of knowledge, learning and innovation. Through teaching, research and community engagement, Canada's universities help deliver the solutions needed to achieve ongoing prosperity for Canada. University faculty, researchers, graduates and students put their knowledge and skills to work for the benefit of Canada and Canadians now, and in the future.

Students today have unprecedented opportunity – to pursue hands-on research; to engage in co-op work study; and to experience study abroad and community service learning as they acquire the skills, knowledge and experiences to equip them for life. Students have broad choices in what kind of institution, program of study, and learning environment they want to immerse themselves in, including a wide array of on-line possibilities. And university graduates are getting good jobs.

Canada's universities are known internationally for offering exceptionally high quality programs that are affordable, accessible and relevant. Canadian students and their families recognize this, and that's one reason university enrolment has increased more than 50 percent

since 2000. This year, more than one million students are pursuing their first degree. The kind of experiences they have will have a profound impact on Canada's ability to sustain our quality of life in the decades ahead.

There is no substitute for the knowledge and ideas universities provide to address the challenges that face Canada. Universities are the hub through which we develop new knowledge, prepare students to be engaged global citizens, and transfer the creative, innovative and ingenious ideas that will ensure we can compete to win. The benefits generated by universities touch every Canadian.

“Canadian companies that succeed in international markets also create good jobs and greater prosperity here at home.”

The Honourable Ed Fast, P.C., M.P., Minister of International Trade
Ottawa, Ontario, October 16, 2012

Canada's universities welcomed the smart, strategic investments in research and innovation that were announced in recent federal budgets. The Knowledge Infrastructure Program helped build Canada's capacity to meet the 21st century needs for universities. In the face of tough fiscal choices in Budget 2012, the government showed leadership by continuing to invest in infrastructure and research, innovation and university-private sector research collaborations. These types of investments

Canadian universities prepare students for the global economy

700,000
new jobs

Between July 2008 and July 2012 there was an increase of 700,000 net new jobs for university graduates and 320,000 new jobs for college graduates – but 640,000 fewer jobs for those without any postsecondary certification.

50%
participation

Half of all university students participate in a co-op or internship program during their first degree.

4/10
debt-free

Four out of 10 students graduate university completely debt-free.

\$1.3 M
earnings

Canadian bachelor's graduates earn on average \$1.3 million more during their career than a high school graduate and \$1 million more than a college graduate.

will ensure economic growth, the creation of high quality jobs and economic prosperity for Canadians over the long term.

As Canada navigates through a prolonged period of global economic uncertainty, we need to focus on actions we can take to maximize opportunity and mitigate risk – by diversifying our economy and our markets, taking measures to enhance competitiveness and using fiscal capacity strategically – to address new and emerging challenges. Canada’s university leaders are mindful of ongoing economic weakness, especially in Europe and the United States. Should contingency measures be needed to stimulate the economy, Canada’s universities stand ready, as with 2009’s Knowledge Infrastructure Program investment by the federal government, with projects that can generate lasting value quickly.

Our vision for a prosperous Canada continues to be one that leverages our research and innovation through the training of students and the quality of research on our campuses, often in collaboration with the private sector and international partners, and with more active engagement of Aboriginals in higher education. A more globally connected, highly qualified population will generate the knowledge and ideas that Canada needs to face the challenges ahead.

“The three most influential experiences I had at university were: co-op, an international study experience and an entrepreneurial culture. Talent is our country’s best natural resource. Giving students a global experience is critical, and I’m a living example of that. If I did not study, travel and work abroad, my business would not be where it is today, with a strong global outlook. From day one at Polar Mobile we saw ourselves as a global business.”

Kunal Gupta, 27, founder of Polar Mobile, a born-global company with clients in more than 12 countries, Ottawa, Ontario, October 23, 2012

Research

DISCOVERY RESEARCH develops new knowledge and advances our understanding of ourselves and the world around us. It is the foundation for innovations made by our students and faculty and leads to the creation of new products and services in the private sector. Whether by inspiring the next generation of students in the classroom or contributing to the development of specific ideas, tools, services and products that drive private sector innovation, one thing is clear: discovery research drives transformative innovation.

“Research leads to discoveries and inventions. That leads to patents that build Canadian businesses and create Canadian jobs, and that makes a greater prosperity for Canadian families and workers.”

The Right Honourable Stephen Harper, Prime Minister of Canada, Announcement of the 2011 Vanier Canada Graduate Scholarships, Waterloo, Ontario, August 3, 2011

Universities play a pivotal role in fostering innovation in Canada. Contract research by universities for business partners has doubled to nearly \$1 billion a year since 1999. This is in addition to the almost \$1 billion in research funded by and conducted with community groups and charities each year. In its report to the Government of Canada, the Jenkins’ panel noted the important functions universities play as a resource for business innovation. Universities conduct 38 percent of research in Canada, more than any other academic sector within the G7 nations. By comparison, our private sector is less driven to conduct research. Total private sector spending on research and development is just one percent of GDP, which is half or less than private sector R&D investments in Israel, Sweden, Finland, South Korea, Japan, the U.S. and Germany. Canada’s universities are connecting and linking with Canadian companies of all sizes to transfer the knowledge and ideas generated on our campuses into the private sector. Through collaboration, we are putting ideas to work to address the challenges Canada and Canadians confront.



Photo: Université Laval

“Our university graduate programs produce the advanced Master’s and PhD degree holders who can contribute breakthrough ideas that can ensure companies stay at the cutting edge of R&D....”

Science, Technology and Innovation Council, Ottawa, Ontario,
June 28, 2011

Multi-year, predictable and sustained funding is an important and integral aspect of government innovation policies, and will ensure continued research excellence for which Canada is recognized. This funding enables Canada’s outstanding faculty to convey their passion and excitement for discovery to the next generation of students in order to help them develop and hone research skills. Funding support also drives innovation and problem-solving in the private, public and not-for-profit sectors. Sustained and enhanced funding for Canada’s research enterprise sends a vital signal to Canadians and to researchers around the globe that Canada is a place for the world’s best to conduct their research.

Canada’s three research granting councils – the Natural Sciences and Engineering Research Council, the Social Sciences and Humanities Research Council, and the

Canadian Institutes of Health Research – as well as the Canada Foundation for Innovation, are essential to the research activities undertaken on our campuses. **Canada’s universities recommend the government enhance funding for the research granting councils by \$110 million in 2013 to strengthen core discovery research programs, including the institutional costs of research, recognizing the particular strength that the social sciences and humanities provide to society.**

In today’s global economy, national boundaries are more porous than ever. Canadian companies no longer compete with the best in the country to succeed. They compete with the best in the world. Likewise, the challenges Canadians face are not unique to our landscape. They are shared challenges that other countries are facing. Global challenges require global solutions. This is why Canada’s universities are aggressively pursuing an international education and research agenda that fosters two-way student mobility and faculty exchange to enhance the people-to-people links essential to global problem-solving. To further this shared goal, **Canada’s universities recommend an additional \$40 million be directed to the granting councils to increase emphasis on international research collaboration, through their existing programs.**

Canada's universities focus action on international linkages

Canada's universities are developing innovative connections with key economies to facilitate the two-way mobility of talent and to build collaborative multi-sectoral research networks that leverage our strengths and expertise to help tackle global challenges.

In April 2012, AUCC organized a mission of 25 university presidents, led by Canada's Governor General, His Excellency the Right Honourable David Johnston. During the visit, Canadian universities announced 75 new partnerships with Brazilian institutions, scholarships and student mobility programs valued at \$6.7 million. The government of Brazil committed to sending up to 12,000 Brazilian students to study in Canada through its groundbreaking *Science Without Borders* program.

In November 2010, AUCC also led a delegation of 15 Canadian university presidents to India to position Canada as a partner of choice in higher education and research. We engaged Parliamentarians, media and Canada-India education stakeholders in the lead up to the mission. Canada's universities collectively committed \$4 million during that mission for India-specific initiatives including joint programming, student mobility and joint research. Since then, dozens of initiatives are under way, and university student enrolment from India is climbing. In November 2012, Prime Minister Stephen Harper and Ed Fast, the Minister of International Trade, returned to India. They signalled the importance of making higher education a central component of Canada's relationship with India.

Universities open students to larger worlds and prepare them to thrive in our global economy.

What goes on in our classrooms, labs, libraries and research centres determines the calibre of university graduates that join our workforce. These students become our engineers, health professionals, entrepreneurs, lawyers, social workers, policy-makers and global leaders of the future. A research-enriched learning environment provides students with the skills they need to develop ideas, gain hands-on experience and build practical knowledge that will serve them and Canada.

“The only way we can win is through our people, and our people cannot be just five or 10 percent better, they have to be *much* better. And it can't just be two or three or four superstars, it's all employees. We're lucky that we have institutions like UNB (University of New Brunswick) and St. Thomas, local institutions that can provide us with an education that, in my opinion, is better than Harvard or Stanford.”

Mike Ashar, President, Irving Oil, Ottawa, Ontario, October 23, 2012

Recent employment surveys reinforce the value of a research-enriched university experience. The July 2012 edition of the Harris Interactive Employment Survey confirmed that during the last five years, employers created many new jobs to respond to evolving business demands, and most of these jobs required a university degree. According to federal government estimates, 75 percent of new jobs in the coming decade will require postsecondary education. Between 2010 and 2020, AUCC estimates there will be 2.1 million jobs created for university graduates.

In Canada, small- and medium-sized enterprises represent approximately 75 percent of the private sector and employ, on average, fewer than 10 people each. These companies most often lack the resources to conduct their own research, employ recent graduates or take on student interns who would help make their companies more profitable and prosperous. Internship and fellowship programs provide SMEs with access to talent that would otherwise be beyond their reach. **AUCC recommends the federal government invest \$15 million, to be matched by private sector investments, in internships**

and work experience programs such as the kind managed by Mitacs, to better connect graduate students to private sector companies. This funding would create up to 500 12-month internships valued at \$30,000 each, with matching funds from the private sector.

Internationally valued research excellence

THE COUNCIL OF CANADIAN ACADEMIES report, *The State of Science and Technology in Canada*, developed at the request of Industry Canada and released in September 2012, surveyed both a collection of the world's top-cited researchers and experts on Canadian science and technology policy. The report found that the state of Canadian science and technology is healthy, growing and internationally respected.

Canada's researchers are established world leaders in clinical medicine, historical studies, information and communication technologies, psychology and cognitive sciences, physics and astronomy, and visual and performing arts. And researchers around the globe want to collaborate with Canadian researchers, especially those from China, the United States, Australia and Brazil.

Canadian researchers are becoming even more productive, with research output almost 60 percent higher in the last five years than in the previous five-year period. By comparison, other G7 countries grew by only 33 percent. More than four out of 10 Canadian scientific papers include international collaborators – up from 34 percent in 1999.

On a field-by-field basis, the world's top-cited researchers ranked Canada in the top five leading countries in the world, and fourth overall, after the United States, United Kingdom, and Germany. The findings of this report demonstrate a high international regard for the quality and rigour of Canada's S&T.

Canada has an opportunity to exploit its brain power. As competition for global talent intensifies – especially for top graduate students and researchers – Canada needs

Canada, from the world's perspective

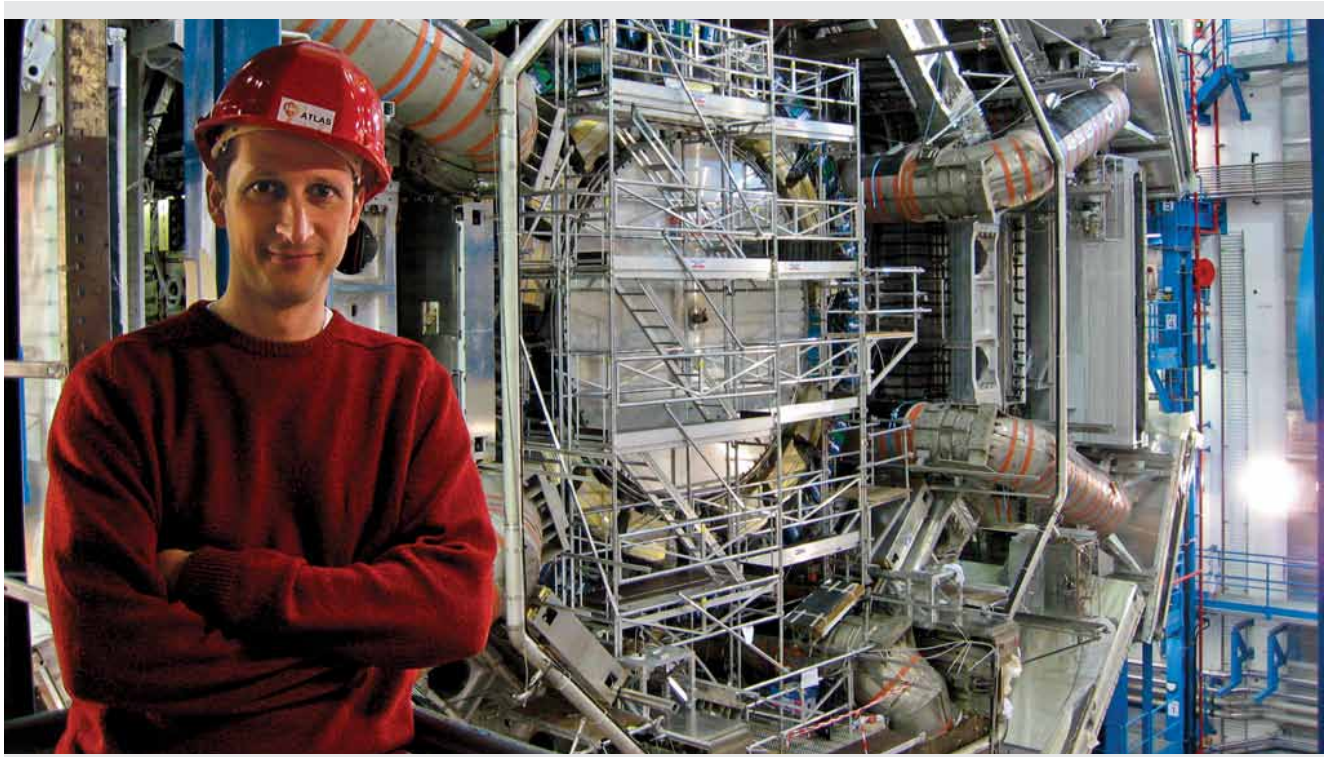
“The conclusions reached by the expert panel may come as a surprise to many, and at times are contrary to some of the commentary that has appeared in the media in recent months and years. However, the evidence collected by the panel is both compelling and clear. Canada has much to be proud of.”

Eliot Phillipson, chair of the expert panel on *The State of Science and Technology in Canada* and former president and CEO of the Canada Foundation for Innovation, *Research Money*, October 10, 2012

a sustained strategy to connect with countries where research capacity is growing quickly. The CCA report shows that from 2005 to 2010, China tripled its output of scientific publications. Brazil has more than doubled its scientific publications during the same period and India has almost doubled its output. To partner with these countries, commitment and investments are needed from Canada. And to be successful, these partnerships must encourage the flow of ideas and knowledge, involving researchers and students from both countries. Canada's universities have acted in concert to advance international research collaboration that is aligned with Canada's priorities. Building on the work of AUCC's university missions to India in 2010 and Brazil in 2012, **Canada's universities are seeking support to accelerate and intensify international research collaboration at scale with priority countries. An initial commitment of \$75 million – \$25 million targeted to India, China and Brazil respectively – to be delivered through a new mechanism that is nimble, responsive and based on excellence and peer review.**

“We are overexposed to the United States and underexposed to faster-growing emerging markets.”

Mark Carney, Governor, Bank of Canada, Toronto, Ontario, August 22, 2012



University of Victoria researcher at CERN laboratory

Branding Canadian excellence through higher education

IN AUGUST, the federal government's expert advisory panel for international education expressed a vision to make Canada a "21st century leader in international education to attract top talent and prepare our citizens for the global marketplace." It placed 14 recommendations in the context of Canada's need to attract top talent; to build people-to-people ties in emerging markets; and to link our international education marketing activities to economic growth, job creation and increased exports and investment.

The report was groundbreaking. It affirms that Canada benefits by attracting top international students here. Those students already contribute more than \$8 billion to Canada's economy, enriching our communities and building trade links for the future. Even more importantly, the report recommends that more Canadian students need to gain global experiences through study abroad, thereby acquiring new skills and becoming "powerful ambassadors" for Canadian products, services and way of life.

Canada has a well-deserved international reputation and established areas of research excellence upon which to build our education brand – a brand founded on ensuring a high quality, affordable, safe, welcoming and multicultural higher education experience. Attracting top talent to Canada underscores this brand and initiates our future trade and diplomatic relationships. Canada can leverage higher education assets to enhance our trade connections and to attract top talent as it refreshes its Global Commerce Strategy in the months ahead.

“Canada needs to be connected to an international supply of ideas, research, talent and technologies in order to create jobs, growth and long-term prosperity in an increasingly competitive global environment.”

The Right Honourable Stephen Harper, Prime Minister of Canada, New Delhi, India, November 6, 2012

International education: a key driver of Canada's future prosperity

Canada's universities welcome the far-sighted and achievable plan to drive prosperity through investments in international education and research as contained in the report of the federal government's advisory panel on Canada's International Education Strategy. The report calls for investments to strengthen Canada's global reputation for excellence in education and research, with a focus on priority areas aligned with Canada's innovation and prosperity agenda:

1. Double the number of international students choosing Canada by 2022.
2. Introduce an international mobility program for Canadian students to serve 50,000 students per year by 2022.
3. Develop comprehensive and multifaceted bilateral agreements with priority countries that focus on all aspects of graduate education and research, supported by appropriate levels of funding.

Canada's universities recommend an additional investment of \$20 million in 2013 for international education marketing. The previously committed \$5 million is urgently needed to support existing marketing efforts being undertaken by the Department of Foreign Affairs and International Trade Canada. New resources would fund sector-led initiatives to attract top talent to Canada using digital and social media, undertake market research and develop key targeted marketing activities. Funding would also be allocated to establish a new Council for International Education and Research, as recommended by the expert advisory panel, and lay the groundwork for a new program of Canadian student mobility. In addition, it is vital to ensure that Citizenship and Immigration Canada has the resources it needs to process visas expeditiously if we are to increase our ability to attract top international talent.

Take action on Aboriginal higher education *now*

AS CANADA MARKETS ITSELF to the world to attract top talent, we have an obligation to work more urgently to close the education gap for Aboriginals in Canada. Canada's universities support recent efforts to improve Aboriginal education at the K-12 level. Universities educate the teachers, school administrators and policy-makers who will make elementary and secondary education better for Aboriginal young people. But there is an equally compelling case to improve university access so that Aboriginal students who complete grade 12 do not simply hit a brick wall in trying to achieve their educational aspirations.

“The clock is now ticking, my friends. My people will not wait on the delivery of promises forever. And we have seen the tragedies that explode when patience runs out.”

Shawn A-in-chut Atleo, National Chief of the Assembly of First Nations, Ryerson University convocation address, Toronto, Ontario, October 17, 2012

Canada's universities have a demonstrated record of success in developing and running the types of programs and services that increase Aboriginal university enrolment, completion and success. These programs have helped thousands of Aboriginals in Canada benefit from higher education and be full participants in the economy and society. The challenges are broad and include: the need for Aboriginal role models in higher education; the need for enhanced financial support; the need for academic support services; and the need for programs that support Aboriginal students in their own cultures and languages. Canada's universities have proven solutions to address these barriers. We renew our commitment to work with the government and Aboriginal leaders to scale-up these programs, and achieve real impact for Aboriginals, their communities and Canada.



Photos: University of Manitoba

Canadian universities deliver for Aboriginal students

In December 2012, AUCC will launch a searchable, comprehensive, online directory of services and programs offered by Canada's universities for Aboriginal students. Updated from 2006 and 2010, the 2012 directory illustrates university leadership and progress in addressing barriers to higher education.

For example, the University of Winnipeg offers a transition year program for first-year Aboriginal students, access to Elders-in-Residence, and peer mentoring. Its Wîi Chiwaakanak learning centre is revitalizing downtown Winnipeg, serving as a bridge between the university, Aboriginal and inner city communities.

Here are more examples of ways that Canada's universities are engaging Aboriginal students:

- The University of Victoria's LE,NONET program has doubled the Aboriginal completion rate and decreased the number of students withdrawing from courses by two-thirds.
- Cape Breton University is home to the Purdy Crawford Chair in Aboriginal Business Studies, which encourages postsecondary business studies for Aboriginal students and promotes the need for entrepreneurship, business investment and corporate skills training to create a model of self-reliance.
- The University of Manitoba offers more than \$500,000 in bursaries and scholarships for Aboriginal students.
- At Lakehead University, all campus signage is posted in Oji-Cree syllabics and English. The university also offers language courses in Ojibwe and Algonquin.
- The University of Regina, home to the First Nations University of Canada, offers more than a dozen programs with curriculum customized for Aboriginal students.
- Le Centre des Premières Nations Nikanite at l'Université du Québec à Chicoutimi offers a health sciences summer camp for local Aboriginal high school students. The camp brings hands-on learning experiences and encourages students to stay in school.
- Laurentian University offers Gizhiitaawswîn, a program designed to assist Aboriginal students' transition into university programs with a wide range of support programs and mentoring.

In addition to developing new programs, services and support for Aboriginal students on campus, Canada's universities have worked with Aboriginal groups and launched an action plan to improve access to education and increase success rates.

The issues are taking on greater urgency. The impact of a longstanding cap on existing federal funding mechanisms has created a funding gap for Aboriginal higher education that was estimated to be in excess of \$300 million in 2008-09. Groups such as Indspire, which distributes bursaries and scholarships and recognizes indigenous achievers, are making a real difference to Aboriginal education. The organization has already awarded more than \$49 million to 14,000 First Nations, Inuit and Métis youth, to help them meet their postsecondary goals. **AUCC supports the proposal of Indspire to seek an immediate commitment of \$20 million from the federal government for postsecondary scholarships for Aboriginal students, to be matched by the private sector, with an additional \$30 million to be matched by the private sector when the first \$20 million has been raised.**



Taking action

Aboriginal success: a national priority

November 2009

National Chief Shawn A-in-chut Atleo meets with Canadian university presidents

January 2010

University presidents share best practices on Aboriginal access and success

June 2010

AUCC updates national inventory on programs and services for Aboriginal students

October 2010

AUCC and the National Aboriginal Achievement Foundation (now Indspire) hold a working summit and launch an action plan

October 2011

AUCC distributes its *Value of a degree for Aboriginal Canadians* to reserves and communities across Canada

December 2011

AUCC and the Assembly of First Nations hold national webinar for Aboriginal students on strategies for success in higher education

December 2012

AUCC launches national online directory of university services and programs for Aboriginal students

National online directory for Aboriginal students:

www.aucc.ca/Aboriginal-students

Moving forward

CANADA'S UNIVERSITIES recognize that the global economy is fragile. In addition to the slower than anticipated recovery from the global economic recession, the demographic shift that is taking hold across the country means proportionately fewer people to meet the needs of a rapidly aging population. We must become more competitive and innovative if we are to remain prosperous in the decades ahead.

In the federal government's recent update of economic and fiscal projections, it was clear that the global economic environment remains unstable. Nonetheless, the government pledged to stay on course with its commitment to foster strong, sustainable, long-term economic growth and high-quality jobs.

Canada has the opportunity and capacity to take action now to strengthen our position. Canada's universities are vital assets in achieving virtually every public policy goal over the next decade, including: labour force adjustment; immigration reform; global commerce; and advances

in science, technology and innovation. Our mission of teaching, research and community engagement makes Canada's universities integral to the health and prosperity of communities across the country.

Canada's universities have a vision for a stronger, more connected Canada. Working together, we can make this vision a reality by equipping our faculty to connect abroad, bringing global perspectives to the classroom, providing students with an enriched educational experience wherever they choose to study, and improving the linkages from universities to communities, the private sector and the wider world. This is the vision of Canada's universities: a vision for a strong, prosperous and connected Canada, now and into the future.



Photo: University of Toronto

Canada's universities' 2013 budget recommendations:

- Enhance funding for the research granting councils by \$110 million in 2013 to strengthen core discovery research programs, including the institutional costs of research, recognizing the particular strength that the social sciences and humanities provide to society.
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- Provide an additional \$40 million to be directed to the granting councils to increase emphasis on international research collaboration, through their existing programs.
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- Invest \$15 million, to be matched by private sector investments, in internships and work experience programs such as the kind managed by Mitacs, to better connect graduate students to private sector companies.
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- Accelerate and intensify international research collaboration at scale with priority countries. An initial commitment of \$75 million – \$25 million targeted to India, China and Brazil respectively – to be delivered through a new mechanism that is nimble, responsive and based on excellence and peer review.
-
- Invest an additional \$20 million in 2013 for international education marketing. The previously committed \$5 million is urgently needed to support existing marketing efforts being undertaken by the Department of Foreign Affairs and International Trade Canada.
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- Fund the proposal of Indspire to seek an immediate commitment of \$20 million from the federal government for postsecondary scholarships for Aboriginal students, to be matched by the private sector, with an additional \$30 million to be matched by the private sector when the first \$20 million has been raised.

AUCC member institutions

Acadia University	Lakehead University	The University of British Columbia	University of New Brunswick
Algoma University	Laurentian University of Sudbury	The University of Winnipeg	University of Northern British Columbia
Athabasca University	Luther College	Thompson Rivers University	University of Ontario Institute of Technology
Bishop's University	MacEwan University	Trent University	University of Ottawa
Brandon University	McGill University	Trinity Western University	University of Prince Edward Island
Brescia University College	McMaster University	Université de Moncton	University of Regina
Brock University	Memorial University of Newfoundland	Université de Montréal	University of Saskatchewan
Campion College	Mount Allison University	Université de Saint-Boniface	University of St. Michael's College
Canadian Mennonite University	Mount Royal University	Université de Sherbrooke	University of Sudbury
Cape Breton University	Mount Saint Vincent University	Université du Québec à Chicoutimi	University of the Fraser Valley
Carleton University	Nipissing University	Université du Québec à Montréal	University of Toronto
Concordia University	NSCAD University	Université du Québec à Rimouski	University of Trinity College
Concordia University College of Alberta	OCAD University	Université du Québec à Trois-Rivières	University of Victoria
Dalhousie University	Queen's University	Université du Québec en Abitibi-Témiscamingue	University of Waterloo
Dominican University College	Redeemer University College	Université du Québec en Outaouais	University of Windsor
École de technologie supérieure	Royal Military College of Canada	Université Laval	Vancouver Island University
École nationale d'administration publique	Royal Roads University	Université Sainte-Anne	Victoria University
École Polytechnique de Montréal	Ryerson University	University of Alberta	Western University
Emily Carr University of Art + Design	Saint Mary's University	University of Calgary	Wilfrid Laurier University
First Nations University of Canada	Saint Paul University	University of Guelph	York University
HEC Montréal	Simon Fraser University	University of King's College	
Huron University College	St. Francis Xavier University	University of Lethbridge	
Institut national de la recherche scientifique	St. Jerome's University	University of Manitoba	
King's University College at Western University	St. Thomas More College		
Kwantlen Polytechnic University	St. Thomas University		
	The King's University College		

More information about how Canada's universities
are building a stronger, more prosperous country



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