

## ADDRESSING SOCIAL AND ECONOMIC CHALLENGES THROUGH UNIVERSITY RESEARCH

- With an aging population and declining birthrate, Canadians will rely more than ever on immigrants to help meet labour-market demand in the coming decades. This is why researchers have partnered with major urban centres to improve labour-market integration for immigrants in Canada.
- Investments in forestry research have led to the discovery and commercialization of wood-fibre derivatives. The most abundant material on the planet, it provides no less than nine industries – including automotive, aerospace and pharmaceutical – with a material that is unrivalled in flexibility. It is already being formulated into longer-lasting exterior paint, stronger plastic and more durable wood finishes.
- While Canadian grain producers lose very little each year due to insect infestation and spoilage, the losses in some countries are as high as 50 percent. New methods of ventilation developed by Canadian university researchers allow farmers to reduce their crop losses and protect the world's food supply.
- Universities offer world-leading expertise in design, global marketing, cultural relations and organizational behaviour, as well as business, financial, legal, and management strategies. These strengths are especially useful to the growing services sector and to promising small- and medium-sized enterprises, which require innovative processes and products to compete on a global scale.



Photo: Université du Québec à Rimouski

## People and places that enhance community life

Through the outreach efforts of students and faculty, as well as the availability of modern facilities, universities have a tremendous social and cultural impact on local communities.

- They offer concerts and plays, lifelong learning classes, daycare centres, sports and fitness facilities, lectures, museums, on-campus radio stations and art galleries.
- Community organizations use state-of-the-art facilities on campus, including ice surfaces, dance studios, fitness centres and technology-ready lecture halls.
- Faculty and students offer valuable advice and guidance on a wide range of social, economic and political issues that are of the utmost importance for communities.
- Students contribute to community wellness through service learning and volunteer work.
- Faculty and students engage young people in science, engineering and other disciplines through outreach activities with local schools, community fairs and youth groups.

“Community engagement, through events like Project Serve Guelph, provide exposure to the social, political, cultural, and economic facets of the local community. My experiences have deepened my learning as a student, and made me a better citizen.”

Ellis Hayman, fourth-year honours English student, University of Guelph



Photo: University of Guelph

“As a university graduate, I understand the value of education, but being an elected official has given me an even greater appreciation of the positive impact a university has on a community. University graduates are a significant part of the social, cultural and economic fabric of our city.”

Rajko Dodic, Mayor of Lethbridge, Alberta

Cover photo: Andrew Tolson for Acadia University



# SMART HEALTHY VIBRANT PROSPEROUS COMMUNITIES

How today's universities are strengthening the places we live.

The Association of Universities and Colleges of Canada is the voice of Canada's universities.

November 2011

AUCC represents 95 Canadian public and private not-for-profit universities and university-degree level colleges.

[www.aucc.ca](http://www.aucc.ca)

 **AUCC**  
Association of Universities and Colleges of Canada  
Association des universités et collèges du Canada

## The heart of a community

A university exists at the very heart of a community. As a hub of local activity in more than 100 communities across Canada, universities are vital to our educational, economic, recreational, athletic, social, cultural and artistic life.

Universities are connectors and integrators. They bring together students and faculty, work in partnership with governments, business and communities, and create new knowledge for the benefit of all Canadians.

Most significantly, universities help individuals, families and communities achieve their aspirations for the future.

➤ Through research and innovation, our universities address communities' most pressing challenges.

➤ Excellence in teaching and research attracts the best and brightest researchers and students from across Canada and around the world to local communities.

➤ Students and faculty volunteer their time and talents to engage children in science, coach sports teams, assist non-profit and charitable organizations, foster discussion on current events, and enhance arts and cultural experiences in our communities.

Canada's universities are places where diversity thrives, where difficult discussions take place and bold ideas take root. They are fertile ground for the discoveries, visions, partnerships and collaborations that strengthen our communities. They are the gateway to a brighter future.

Universities are deeply engaged in their communities. In turn, communities transform universities, shaping their teaching and research, and bringing new ideas and insights to students and faculty.



Photo: York University

## Building prosperity

As a \$30 billion enterprise in direct expenditures alone, universities are significant drivers of economic prosperity in communities across Canada. They are also a major employer. In 2010, 272,000 people were directly employed by universities, and thousands more worked, both on- and off-campus, to supply services to students, faculty and institutions.

## UNIVERSITIES = CONNECTORS + INTEGRATORS AT THE HEART OF A COMMUNITY

Universities also equip communities with the infrastructure needed to innovate and attract talent.

The federal government's Knowledge Infrastructure Program, in partnership with provinces and other funders, upgraded and built state-of-the-art research and learning infrastructure valued at \$3.2 billion at 79 universities. From labs to libraries to learning spaces, this "smart infrastructure" also created thousands of jobs for trades and construction workers.

The concentration of talent and research facilities at Canada's universities brings innovative companies to our communities.

- Nearly 1,000 companies and government labs are located in 27 university research and technology parks, according to the Association of University Research Parks. They employ about 39,000 people and generate \$3.9 billion dollars in GDP.
- Every year, Canada's universities conduct close to \$1 billion in research for businesses and help build their competitive advantage.
- Universities also conduct about \$1 billion in research annually for the health and social services not-for-profit sector.

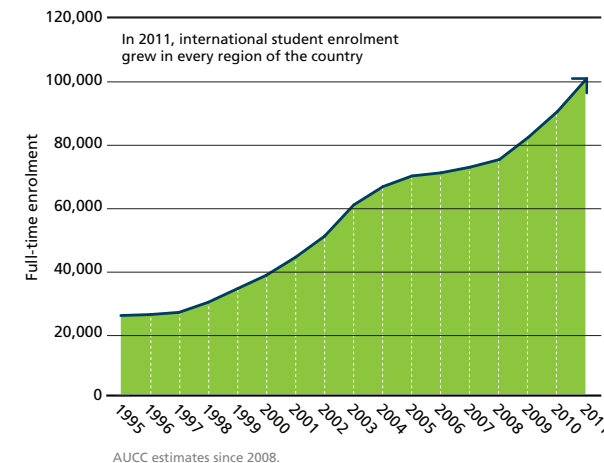
## Attracting the best and brightest

Universities are a magnet for talent. With the help of federal research funding, they attract leading researchers and innovators from around the world to our communities.

- Almost 550 or 30 percent of Canada Research Chairs were recruited from abroad, including close to 260 Canadian expatriates who were attracted home.
- The prestigious Vanier Canada Graduate Scholarship Program, launched in 2009, has helped Canadian universities attract and retain 385 of the most gifted doctoral students from across Canada and another 119 from 44 other countries.
- 22 of the first 70 Banting Postdoctoral Fellows come from outside Canada.

The international reputation of our universities is driving rapid growth in the number of international students coming to study in Canadian communities. In 2011, there are more than 100,000 international students enrolled at Canadian universities, compared to 25,500 in 1995. These students, from more than 200 countries, contribute to economic and social development, enhance diversity and bring their unique perspectives and experiences to our communities.

### International student enrolment has grown four-fold since 1995



## Building stronger, healthier communities through research and innovation

University discovery and innovation is improving our healthcare system and finding solutions to economic and social challenges.

### SMART HEALTHCARE

Across the country, Canada's universities are producing the talent, treatments and techniques that result in more accurate diagnostics and less invasive surgical procedures and medications. They are reducing recovery times and ensuring better patient care. In putting patients at the centre of their work, researchers examine the social, genetic and environmental factors that affect our health and well-being. They integrate findings from materials research, genetics, ecology, history and many other disciplines to improve Canada's healthcare system and reduce costs.

- Scientists and doctors can now identify patients who are at high risk of developing certain types of cancers, neurological and heart diseases. With screening, some cancers can be prevented and pacemakers can be implanted proactively.
- Materials research has led to replacement knee, ankle, hip joints and replacements for soft tissues (or ligaments) which are sturdier, longer lasting, less invasive and more "life-like" in their operation. Even better, patients also heal faster.
- Canadian researchers have developed a new type of bandage that speeds up the healing process for burn victims and significantly reduces the chance of infection.



Teaching hospitals and health authorities partner with universities to train some 80,000 healthcare providers a year.

Photo: Mount Saint Vincent University