

# Canada-Brazil *Ciência sem Fronteiras* Scholarship Program

**Margaux Béland, Vice President, Canadian Partnerships  
Canadian Bureau for International Education**

Open Innovation Seminar  
Tuesday, November 13, 2012  
Sao Paulo, Brazil

Abridged Version



# Canadian Bureau for International Education

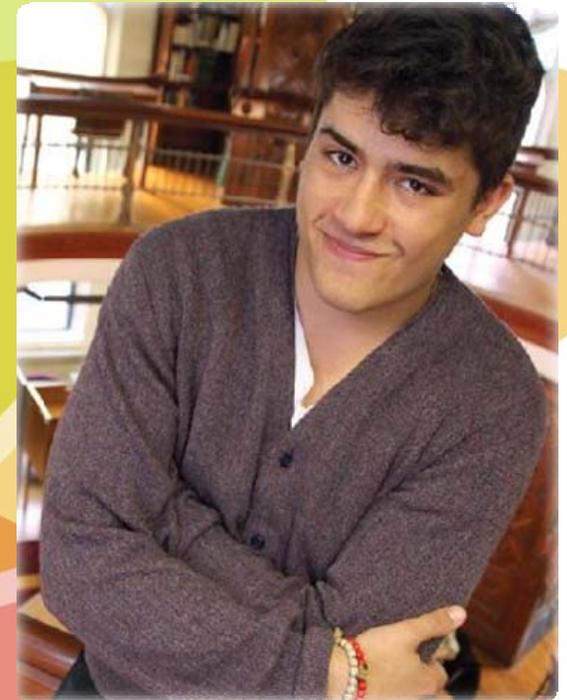
- Our mission and vision: on behalf of our member institutions, to mobilise expertise, knowledge, opportunity and leadership in order to position Canada as a global leader in international education
- The scope of our services:
  - Research and advocacy at the provincial, national and international level
  - Professional development training in international education
  - National and international scholarship management



Expertise. Savoir. Possibilités. Leadership.  
Expertise. Knowledge. Opportunity. Leadership.

# CBIE Scholarship Management Services

- Liaison with Canadian and foreign institutions
- Support throughout the application, placement and visa procurement processes
- Virtual orientation and support throughout the length of the scholarship
- Research/Industry placements
- Financial management
- Program promotion and event coordination



Expertise. Savoir. Possibilités. Leadership.  
Expertise. Knowledge. Opportunity. Leadership.

# Overview of the Canada-Brazil *Ciência sem Fronteiras* Scholarship Program

- 12,000 students destined for Canada
- Undergraduate program
- 12 to 18 months: two academic terms; a research/industry placement; and, where necessary, language courses

Number of Participants at Canadian Universities	
Fall 2012	January 2013
672 students accepted	450+ students to be accepted

- 80% of CsF students are in engineering disciplines
- 2/3 of CsF students placed in language programs
- Doctoral program

Program Name	Duration	Activity
PhD Visiting Student (Sandwich)	12 to 18 months	thesis or research project under supervision of a Canadian and Brazilian thesis director
Full PhD	4 years	completion of a full PhD program

- Postdoctoral program
- Fellows focus on research for 6-24 months



# Advantages for Brazil and Canada

- Promotion of long-term socio-political and economic growth, as well as democratic values, between our two countries
- Opportunities for Canadian universities to strengthen relations with Brazilian universities, including research collaboration
- Opportunities for Canadian industry to strengthen relations with Brazilian industry and vice versa
  - Access to top Brazilian students and their networks
- Upon students' re-entry, internationalization of Brazilian university campuses
- Access to training for students on an academic and professional (practical skills) level



# Canadian Universities

- Canadian universities
  - Nearly 100 institutions that range in size from small liberal-arts campuses to large comprehensive and research-intensive universities — from a few hundred students to over 56,000
  - In 2010, there were a total of nearly 1.2 million university students registered at Canadian universities (of which 755,000 undergraduate students and 143,400 graduate students were registered on a full-time basis)
- Wide variety of programs: over 10,000 programs of study at Canadian universities
  - The searchable database “University study programs in Canada”  
[www.aucc.ca/canadian-universities/study-programs](http://www.aucc.ca/canadian-universities/study-programs)



# University Research and Innovation

- Research excellence
  - 1/3 of the research process is carried out in universities (the highest proportion in the G8)
  - International reputation for state-of-the-art facilities and laboratories
  - World-renowned university researchers
  - Collaboration with government, private sector, external agencies and Canadian and foreign universities
- Key areas of innovation
  - **Science:** health, pharmaceutical, food
  - **Technology:** nanotechnology, biotechnology, environment, communication, information technology
  - **Engineering:** renewable fuels, aerospace, energy

## Annual Funding for University Research (2010)

Source	Amount
Universities	\$6,246,632,000
Federal government	\$3,155,700,000
Provincial governments	\$1,244,350,000
Private sector	\$929,130,000
Not-for-profit sector	\$929,996,000
Foreign sources	\$126,900,000
<b>TOTAL</b>	<b>\$12,632,708,000</b>

Source: Association of Universities and Colleges Canada

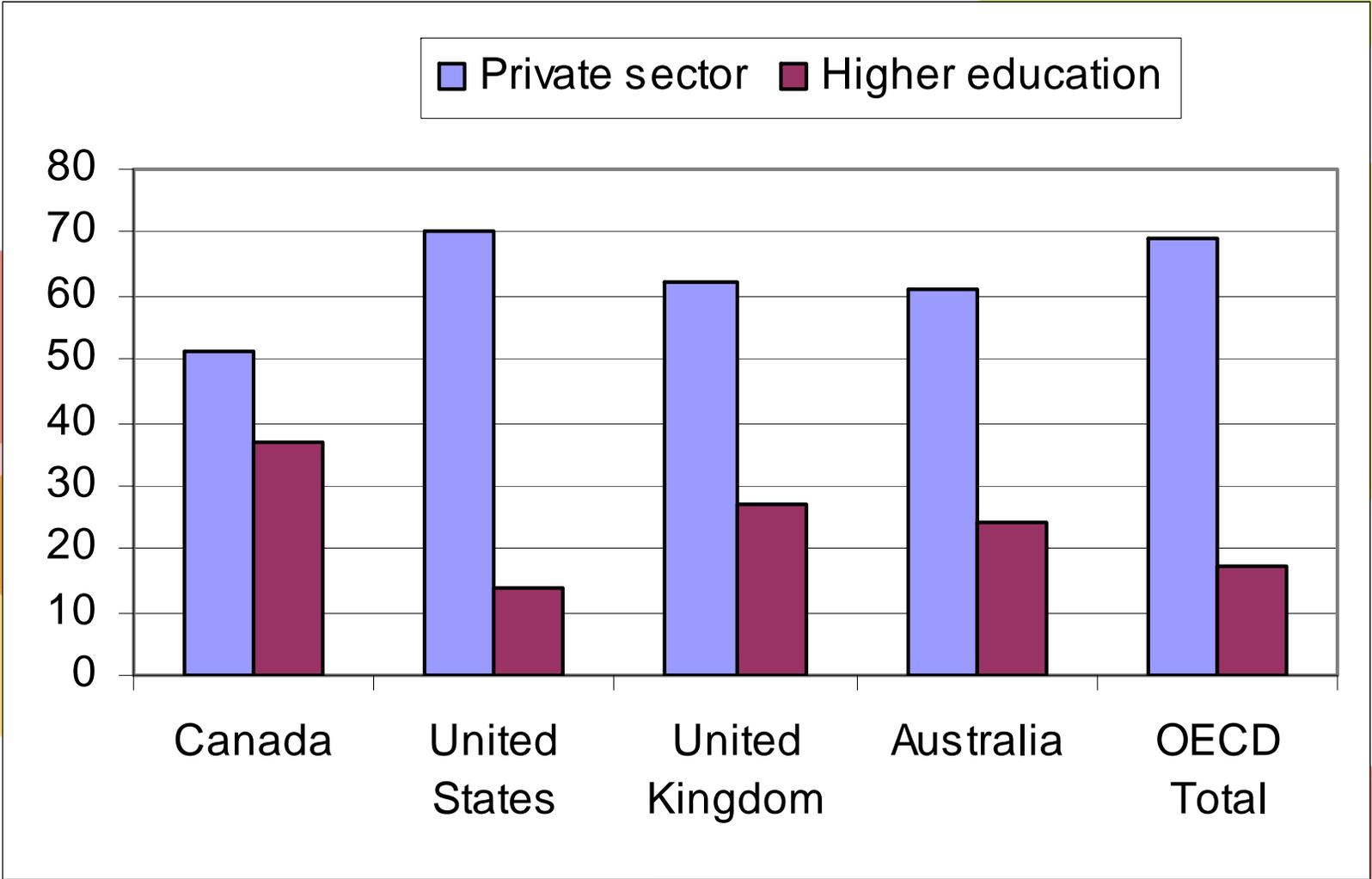


# University Research Collaboration with Brazil

- **University of Sao Paulo and Dalhousie University — planning for extreme marine events**
  - \$2.2 million dollar international project by the Lloyd's Register Educational Trust that unites researchers from the United Kingdom, Australia, Canada and Brazil
  - Uses of coupled models to improve the accuracy of extreme marine events predicted and forecasted at the local and global scale, as well as analyses the impact of climate change on the frequency of extreme marine events
- **University of Sao Paulo and the University of Alberta—diminishing the risk of non-alcoholic fatty liver disease**
  - Determined that increasing creatine levels in the body reduces the risk of non-alcoholic steroidal hepatitis, a common chronic liver disease that increases the incidence of obesity, diabetes, heart disease and stroke
- **University of Sao Paulo, University of Montreal and University of Quebec at Rimouski — looking at the psychological factors that impact HIV treatment in adolescents**
  - Funded by the National Scientific Research Agency in France and the Ministry of Health in Brazil
  - 178 Sao Paulo adolescents participate in the collection of data and information that leads to determining the psychological factors that protect and weaken them when adhering to HIV treatment
  - At the end of this treatment, these individuals will receive virtual medical and psychological guidance via the Université de Montréal's VIH-TAVIE platform



# Global Research Funding Compared to Canada



# Co-operative Programs in Canada

- 80 universities in Canada offer co-op programs
- Approximately 90,000 students enrolled in co-op programs
- Approximately 67,500 co-op placements completed last year (2011-2012)
- Completed co-op placements in top 8 universities (2004 to 2012)

Institution	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Carleton	1,000	998	1,018	1,027	1,074	1,081	1,223	1,262
Ottawa	1,622	1,702	1,778	1,694	1,838	2,054	2,139	2,133
SFU	1,937	2,203	2,285	2,516	2,270	2,129	2,413	2,784
Sherbrooke	3,434	3,555	3,641	3,760	3,604	3,750	3,800	4,000
UBC	2,194	2,598	2,946	3,146	3,245	2,879	2,947	3,431
UVic	2,655	2,709	2,646	2,706	2,679	2,583	2,647	2,807
Waterloo	11,369	11,517	11,856	12,375	12,673	13,430	14,516	~16000
<b>Subtotal</b>	<b>24,211</b>	<b>25,282</b>	<b>26,170</b>	<b>27,224</b>	<b>27,383</b>	<b>27,906</b>	<b>29,685</b>	<b>32,417</b>

Sources: Canadian universities

Data from these selected universities represents slightly under 50% of all placements completed in Canada annually

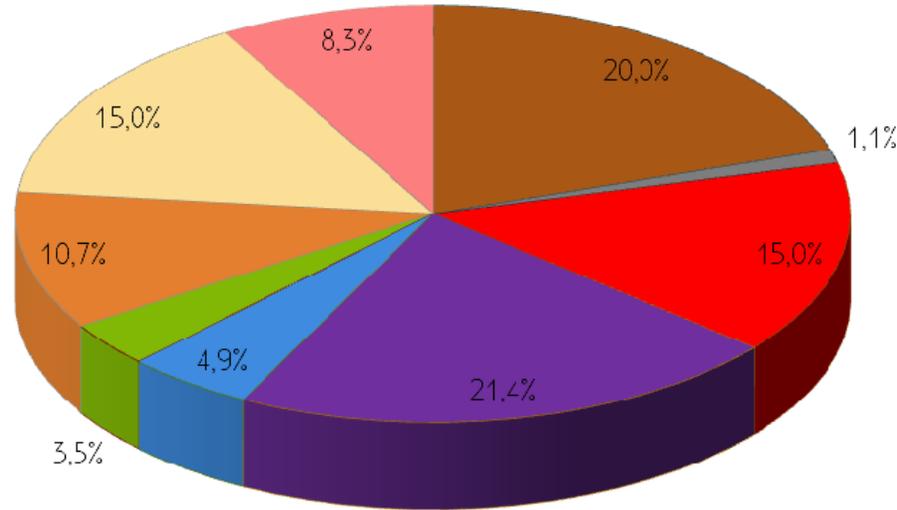


Expertise. Savoir. Possibilités. Leadership.  
Expertise. Knowledge. Opportunity. Leadership.

# Distribution of Co-op Placements for One Province

## Placement Weeks by Occupation

Data for British Columbia (1993-2012)



Admin / Business (20.0 %)

Agriculture (1.1%)

Computer Science (15.0%)

Engineering (21.4%)

Health / Legal (4.9%)

Hosp / Tourism (3.5%)

Humanities / Social Sci. (10.7%)

Science (15.0%)

Technical / Trades (8.3%)



Expertise. Savoir. Possibilités. Leadership.  
Expertise. Knowledge. Opportunity. Leadership.

# University of Waterloo – the world's largest post-secondary co-operative education program

- 1957: 1<sup>st</sup> co-op program in Canada
- 80% of all students at the University of Waterloo are enrolled in a co-op program

4500 organizations
16,157 scheduled work terms
689 applied health sciences
1796 arts
7115 engineering
1039 environment
3471 math
1365 science
685 inter-faculty
= 123 co-op programs



# Networks of Centres of Excellence Programs

The Networks of Centres of Excellence is jointly administered by

- Industry Canada
- Health Canada
- Canadian Institutes of Health Research (CIHR)
- Natural Sciences and Engineering Research Council (NSERC)
- Social Sciences and Humanities Research Council (SSHRC)

Canada's Networks of Centres of Excellence (NCE) has been hailed around the world as a precedent-setting model for connecting research and development to the economic and social well-being of our country.

The Networks of Centres of Excellence invests in networks and centres that

- **Stimulate** leading-edge research in areas of importance to Canada
- **Build on** nation-wide and international partnerships
- **Develop** and retain world-class research and research translation capabilities
- **Create** innovative knowledge and technology transfer opportunities and mechanisms
- **Manage** research resources and programs in an efficient and cost-effective manner



Expertise. Savoir. Possibilités. Leadership.  
Expertise. Knowledge. Opportunity. Leadership.

# Research/Industry Placement Component Background

- Past missions to Brazil
  - Brazil-Canada Forum: the result of the Canadian CEO trade mission to Brazil in June 2011
  - University mission to Brazil in April 2012: 30 presidents participated and signed 75 new partnerships, scholarships and student mobility programs for a combined value of \$6.7 million
- Current bilateral relations between Brazil and Canada
  - Brazil is one of Canada's priority markets in the science and technology industries
    - The Canada Brazil Framework Agreement for Cooperation on Science, Technology and Innovation (2010)
  - Merchandise trade and investment has increased by 42% over the last five years, reaching \$6.7 billion in 2011
  - Strategic bilateral agreements have been signed recently in the areas of foreign affairs, international development, social security, air transport, energy and space collaboration



# Criteria for Research/Industry Placement

- Meaningful work experience providing a discipline-related learning opportunity
- Full-time placement close to the student's Canadian university--- generally 35 hours per week or 455 to 560 hours over 3 to 4 months
- Access to a supervisor/mentor within the organization/institution
- Regular supervision and evaluation by the supervisor/mentor identified by the organization
- A signed final report for the research/industry placement



# Contact

## Margaux Béland

Vice-president, Canadian Partnerships

Tel.: 613-237-4820 ext. 243

Fax: 613-237-1073

[mbeland@cbie.ca](mailto:mbeland@cbie.ca)

Canada-Brazil *Ciência sem Fronteiras* Scholarship Program  
Canadian Bureau for International Education

[www.cbie-bcei.ca/brazil](http://www.cbie-bcei.ca/brazil)



The Canadian Bureau for International Education presents

## A FINE BALANCE

HARMONIZING INTERNATIONAL EDUCATION  
POLICIES AND PRACTICES

