

Harnessing Canada's Innovation Agenda *As a Pathway to International Education*



PRESENTERS:

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Innovation in Canada

Canada's Strengths

- ➔ Strong economic base and financial sector
- ➔ Welcoming business environment and entrepreneurial culture
- ➔ Highly educated workforce
- ➔ World-class education, universities and research
- ➔ Strong “brand”

Canada's Challenges

- ➔ Scale-up, growing businesses, indirect vs. direct support
- ➔ Need for partnerships between industry and research facilities
- ➔ Lag behind other OECD countries in producing PhDs; declining number of grads in STEM (and gender gap)
- ➔ Decline in R&D expenditure (BERD, HERD, GERD, GovERD)

Innovation In Canada

A Role for Universities?

- ➔ Business expenditure on R&D in Canada has been decreasing, moving from 18th position in 2006 to 26th in 2013.
 - *Source: State of the Nation Report 2014, STIC.*
- ➔ Canada's universities conduct \$1 billion in research for businesses and help build their competitive advantage.
 - *Source: Statistics Canada, Gross Domestic Expenditures on R&D in Canada, 2016.*

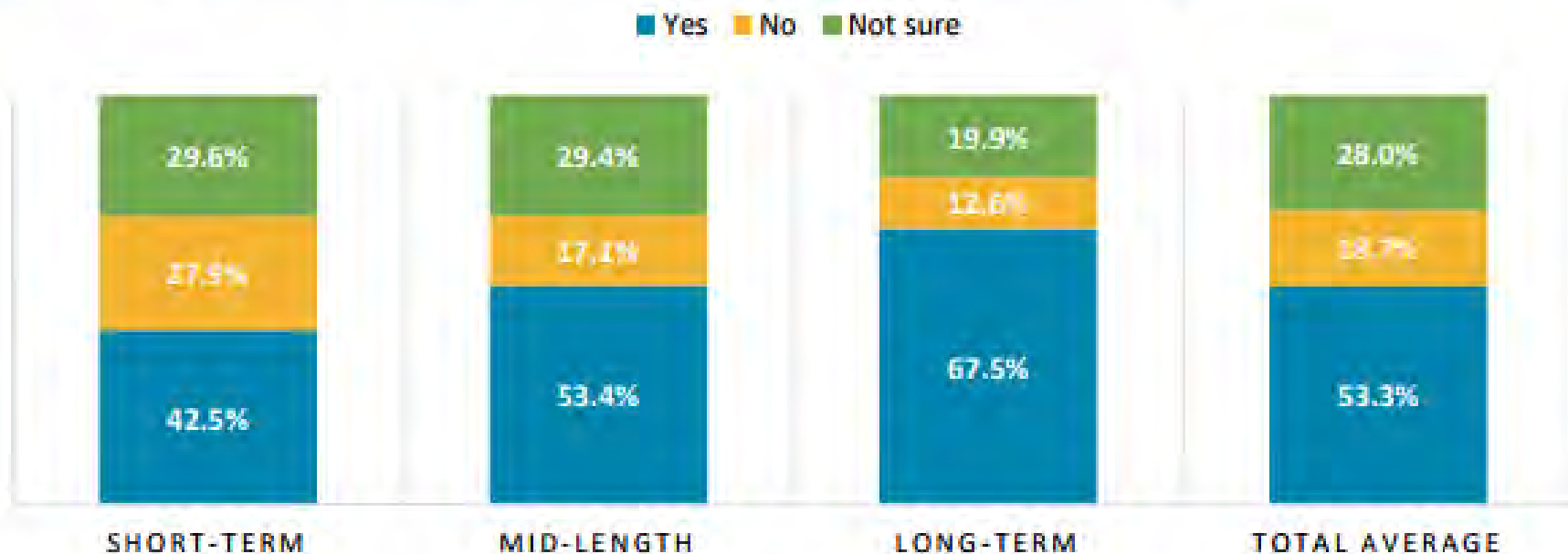
International Innovation – Impact on Industry

“A survey of 400 small and medium-sized employers conducted by Leger Marketing for Universities Canada last year found that two out of three employers in Canada say the country is in danger of being left behind by fast-growing countries such as China, India and Brazil unless young Canadians learn to think more globally. **The results highlight the importance of global experiences to today’s employers,** with a majority of respondents who hire new recruits with international and intercultural skills saying these employees have improved the competitiveness of their business”

Source: Know Canada, Know the World (Universities Canada Report)

International Experience – Impact on Employment

Figure 6: Belief that study abroad experience contributed to a job offer, by study abroad length



Source: *Gaining an Employment Edge: The Impact of Study Abroad on 21st Century Skills & Career Prospects in the United States, 2013–2016*; IIE Center for Academic Mobility Research and Impact

International Experience – Impact on Employment

Key Findings

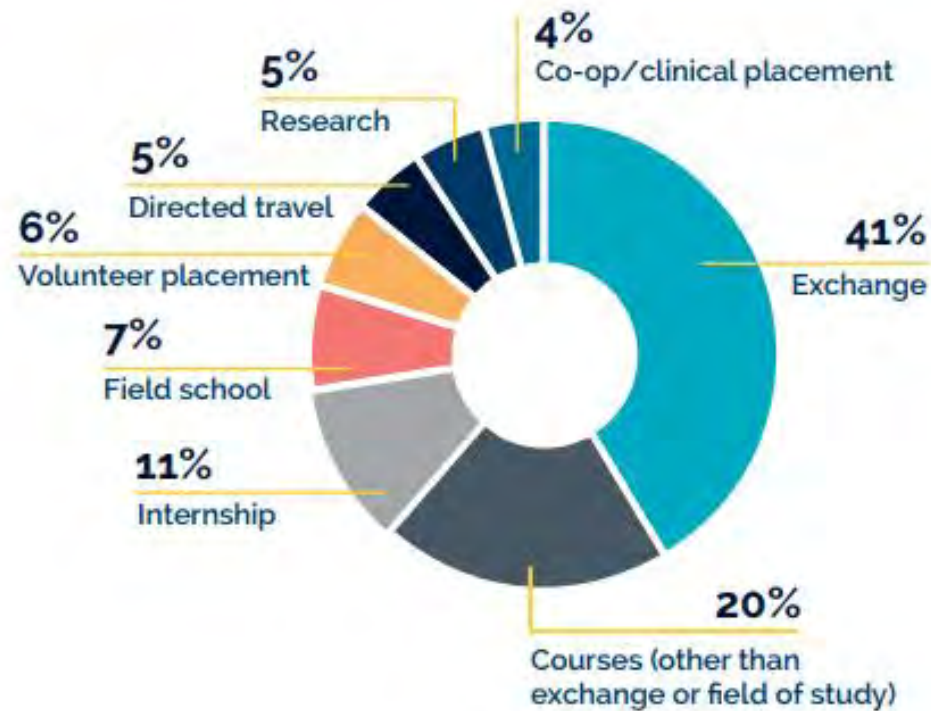
- ➡ Study abroad has an overall positive impact on the development of a wide range of 21st century job skills.
- ➡ Study abroad expands career possibilities.
- ➡ The skills gained through study abroad have a long-term impact on career progression and promotion
- ➡ Longer periods of study abroad have a high impact on subsequent job offers and the development of most skills. Short term programs are most effective at developing teamwork skills.

Source: Gaining an Employment Edge: The Impact of Study Abroad on 21st Century Skills & Career Prospects in the United States, 2013–2016; IIE Center for Academic Mobility Research and Impact

International Experience – by Type

Figure 59:

What was the main purpose of your education abroad program experience?



Source: CBIE Special Feature: Education Abroad “The CBIE Education Abroad Student Survey”

Background

- Established 1975 - oldest Co-op program in Western Canada (42 Yrs)
- 77 undergraduate and 19 graduate co-op programs in all Faculties
- ~ 9000 students enrolled in Co-op/year (23% international students)
- All Co-op programs are optional.
Mandatory in:
UG: Engineering Science, MSE
Grad: Masters Public Policy,
Big Data



**FACULTY OF
APPLIED SCIENCES****COMPUTING SCIENCE**

- Artificial Intelligence
- Computer Graphics and Multimedia
- Computing Systems
- Dual Degree Computing Science with Zhejiang University
- Geographic Information Science
- Information Systems
- Programming Languages and Software
- Software Systems
- Theoretical Systems

ENGINEERING SCIENCE

- Biomedical Engineering
- Computer Engineering
- Electronics Engineering
- Engineering Physics
- Systems Engineering

**MECHATRONIC SYSTEMS
ENGINEERING****FACULTY OF
ARTS & SOCIAL
SCIENCES**

- Anthropology
- Cognitive Science
- Criminology
- Economics
- English
- First Nations Studies
- French
- Gender Sexuality and Women's Studies
- History
- Humanities
- International Studies
- Linguistics
- Philosophy
- Political Science
- Psychology
- Sociology
- World Literature

**FACULTY OF
BUSINESS**

- Accounting
- Entrepreneurship and Innovation
- Finance
- Human Resource Management
- International Business
- Management Information Systems
- Marketing
- Operations Management

**FACULTY OF
COMMUNICATION,
ART & TECHNOLOGY**

- Communication
- Contemporary Arts
- Interactive Arts & Technology

**FACULTY OF
EDUCATION**

- Education

**FACULTY OF
ENVIRONMENT**

- Archaeology
- Business and Geography
- Environmental Geography
- Environmental Science
- Geography
- Global Environmental Systems
- Physical Geography
- Resource & Environmental Management
- Sustainable Business

**FACULTY OF
HEALTH SCIENCES**

- Bachelor of Arts (BA)
- Bachelor of Science (BSc)
- Philosophy and Health Sciences (BA)

**FACULTY OF
SCIENCE**

- Actuarial Science
- Applied Mathematics
- Applied Physics
- Behavioural Neuroscience
- Biological Physics
- Biological Sciences
- Biomedical Physiology
- Chemical Physics
- Chemistry
- Earth Sciences
- General Sciences
- Kinesiology
- Management & Systems Science
- Mathematical Physics
- Mathematics
- Mathematics and Computing Science
- Molecular Biology & Biochemistry
- Operations Research
- Physics
- Statistics

GRADUATE

**FACULTY OF
APPLIED SCIENCES**

- Big Data
- Computer Science
- Dual Degree Computing Science (GDDP)
- Engineering
- Mechatronics

**FACULTY OF
ARTS & SOCIAL
SCIENCES**

- Anthropology
- Economics
- International Studies
- Political Science
- Public Policy
- Sociology
- Urban Studies

**FACULTY OF
COMMUNICATION,
ART & TECHNOLOGY**

- Communication

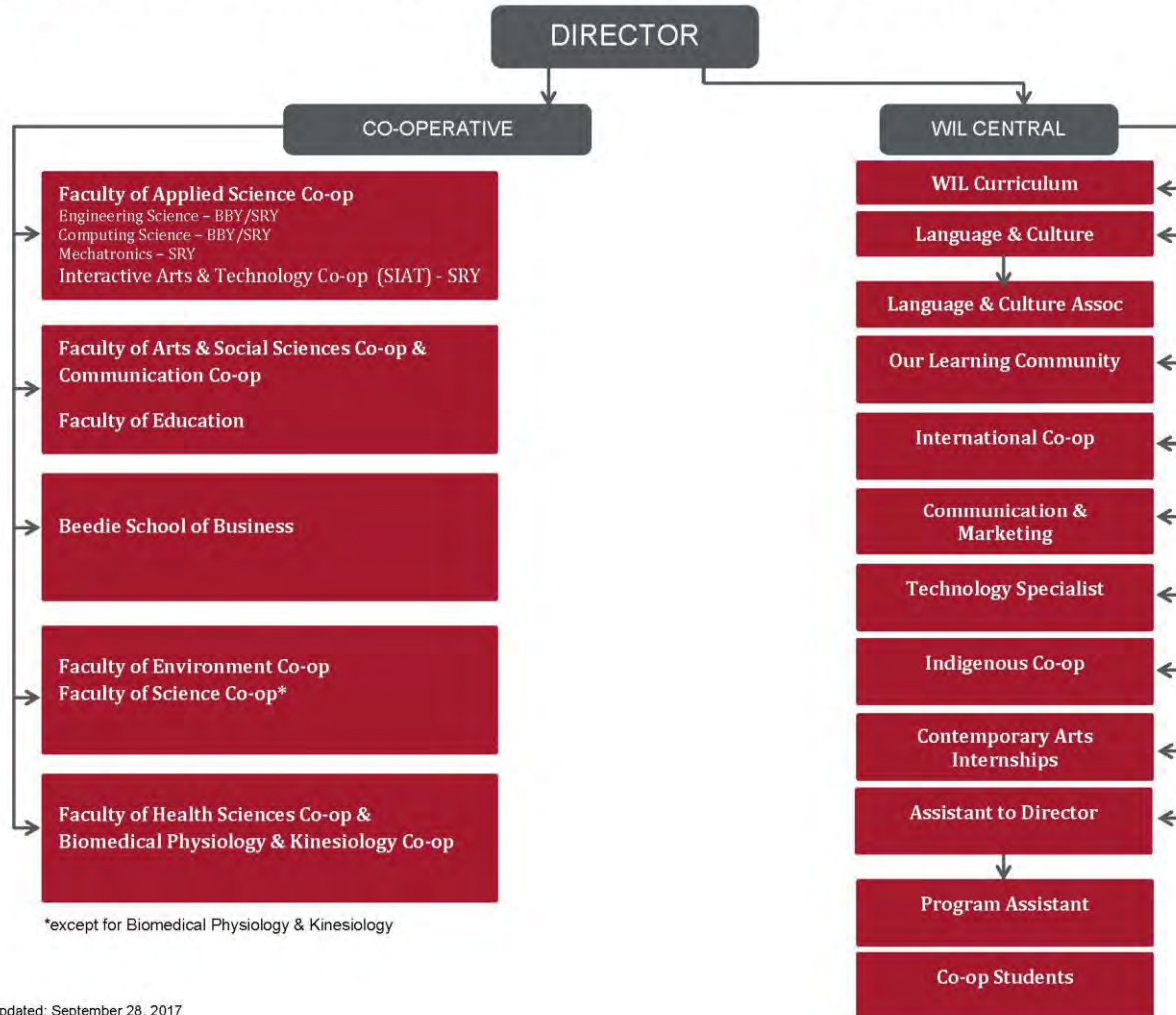
**FACULTY OF
ENVIRONMENT**

- Resource & Environmental Management

**FACULTY OF
SCIENCE**

- Actuarial Science
- Environmental Toxicology
- Mathematics
- Statistics

WORK INTEGRATED LEARNING (WIL)



Last Updated: September 28, 2017

Curriculum Overview

Bridging Online Learning (BOL) - an online pre-employment and skills transfer course that intends to help students identify and use their skills and knowledge in diverse contexts

Bridging International Learning (BIL) - an online curriculum designed to assist and support student learning while they are on a co-op work term outside of Canada. Contains up to date pre-departure resources, including: funding assistance, emergency contact information, travel insurance, and more

Language & Culture Curricula – Job Search Success & Effective Intercultural Communication curriculum designed to empower EAL students with professional writing and intercultural communication skills for the Canadian workplace

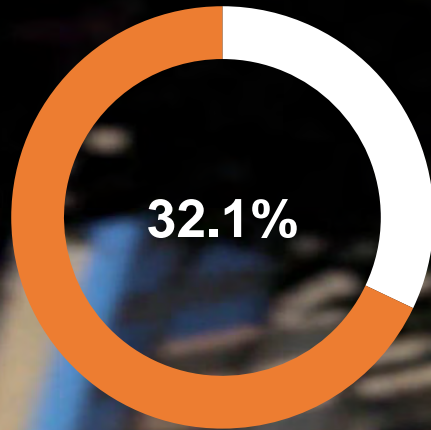
Indigenous Co-op Program – supports indigenous students in a culturally inclusive manner to successfully navigate experiential learning opportunities

Face to Face Curricula – groups workshops (Resume, Cover Letter, Interview, LinkedIn, Working in Canada); one to one career counseling, and site visits with students at the workplace to reflect on their learning

Online Learning Community – an online community story based platform for students, alumni, staff and employers to share experiences, network and access learning resources

Diversity, Inclusion & Equity – developing new and adapting current curricula that better supports, includes and responds to the needs of our diverse students

Research Intensive Co-op Work Terms



On average, **32.1%** of all Co-op work terms have a research focus. From 2014 SP to 2016 SU there were 2,892 research intensive Co-op work terms.

Research intensive Co-op work terms included the following:

- discovery and interpretation of facts through investigation or experimentation
- innovative application of knowledge for practical purposes of technical intervention to alter phenomena
- analysis of data from environmental scans on industries or companies for strategic implementation of business activities

Over **\$6.8M** was spent to employ SFU Co-op students in research intensive work terms.

International Co-op

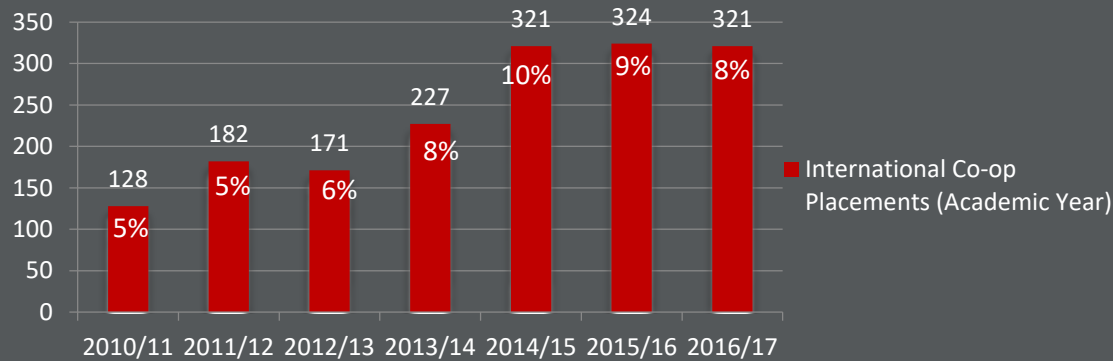
- Students placed abroad since 1993
- Since 2014 over 300 SFU international Co-op placements per year (mainly China, Hong Kong, USA, and Japan).
- Placements through:
 - Postings directly with various organizations
 - SDWT (student led)
 - Partnership Program Placements (Co-op Japan, MITACS, SWB, RISE, etc.)
- Funding assistance provided to Co-op students (Awards, Bursaries, Scholarship, external organizations, etc)

Summer 2016-2017 International Co-op Work Term Locations



International Co-op

International Co-op Placements (Academic Year)



International Co-op Partnerships

Silicon Valley: Tesla, Google, Apple, Facebook, LinkedIn

Germany: Adidas, SAP Germany, BMW, Mercedes

China & Hong Kong: PwC, Swire Hotels

South Korea: TaLK Korea

Boston: Canadian Consulate - Pan-Canadian Alumni Reception



Country Preference by Program

	1	2	3
Business	USA	UK	China
Interactive Arts & Technology	Japan	USA	South Korea
Communications	UK	USA/Germany	China
Arts	UK	South Korea	France/USA
Science	UK	USA	Japan/Germany/Australia
Health Science	UK	Japan/USA	Australia
Environment	UK	Australia	Germany/USA
Engineering	USA	Japan	Germany
Mechatronics	USA	Germany	Japan
Computing Science	USA	Japan/UK	China

Engaging With Students



(Views)



[BLOG POSTING]

Working for Your Passions Part I: An Idea and a Hope

RESEARCH I used to think success depended on the separation of personal and professional passions. That was until I did a self-directed co-op term in Brazil researching some of the most successful soccer clubs. Follow me as I prepare to embark on my journey to Brazil.



By: Christopher Maringka 4898 reads | 0 comments 2



[BLOG POSTING]

Working for Your Passions Part II: Arrival and Research in Brazil

CO-OPERATIVE EDUCATION In part two of my Brazilian co-op story, I arrive in São Paulo feeling overwhelmed. This all changes as I carry out my research, realizing something very powerful about the connection many Brazilians have to the sport of soccer.



By: Christopher Maringka 1109 reads | 0 comments 0



Show us your favourite spot from your International Co-op work term!

HOW TO ENTER THE INSTAGRAM PHOTO CONTEST

PHOTOGRAPH	WRITE	TAG	UPLOAD
SHARE A PHOTOGRAPH OF ONE OF YOUR FAVOURITE SPOTS FROM YOUR INTERNATIONAL CO-OP WORK TERM	WRITE ABOUT WHY YOUR SPOT IS ONE OF YOUR FAVOURITES IN THE WORLD	#sfu_coop AND #myspotintheworld	UPLOAD YOUR PHOTO TO INSTAGRAM
			MAXIMUM OF 3 ENTRIES PER PARTICIPANT

*CONTEST OPEN TO SFU STUDENTS WHO HAVE COMPLETED OR ARE CURRENTLY ON AN INTERNATIONAL CO-OP WORK TERM FROM SUMMER 2015 - FALL 2017.

YOUR PICTURE CAN BE OF YOUR FAVOURITE COFFEE SHOP, BEACH, GARDEN, ETC....

QUESTIONS: 8015200@SFU.CA

Contest Rules:

- To participate you must have been placed in an International Co-op work term between Summer 2015 and Fall 2017.
- Photos must be submitted on Instagram using #myspotintheworld and shared with @sfu_coop.
- Photos must be taken by the participant.
- Photos are accompanied by a description (max 180 words) mentioning the student's faculty and the country where the student conducted their international work term.
- Contest entrants may have a maximum of 3 submissions.
- One prize per entrant.
- By entering, you are allowing the release of your photos and written content for promotional purposes on SFU Co-op's Facebook, Twitter, and Instagram.

CONTEST DEADLINE

WORLD CAFE

- **Table One:** Promoting existing international innovation opportunities to faculty & students (Kaitlyn)
- **Table Two:** Navigating logistical and operational challenges to delivering international innovation programs (Elise & Petra)
- **Table Three:** Setting up international innovation programs and partnerships (Amy)

Your feedback is important to us!

Please take a moment to submit the evaluation for this session.

Evaluations are found on CBIE's Conference app.

Thank you!