

# Industry Engagement: Is the Future Friendly?

*Western Canada VPRs Meeting  
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**a place of mind**  
THE UNIVERSITY OF BRITISH COLUMBIA



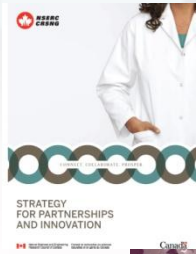
UNIVERSITY-INDUSTRY  
LIAISON OFFICE

# Canadian Innovation Environment

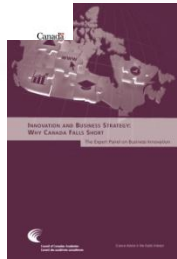
- Build up of academic research capacity not matched by increase in economic outputs
- Return on Investment
  - Traditional: \$, employment
  - Emerging: health, environment, policy and social impacts
- Struggling VCs, biotech sector, & major R&D performers
- Canadian industry lags in innovation
- Global movement towards open innovation



# Third-Party Analysis



NSERC Strategy for Partnerships and Innovation (2009)



Council of Canadian Academies – Innovations and Business Strategy: Why Canada Falls Short (2009)



Science and Technology Innovation Council – State of the Nation 2008 (2009)



Competition Policy Review Panel – Compete to Win (2008)



Government of Canada's S&T Strategy – Mobilizing Science and Technology to Canada's Advantage (2007)



# Guidelines, Principles and Standards



- ◆ OECD Guidelines
  - Data, biological materials, genetic inventions
- ◆ NIH Guidelines
  - Biomedical research resources, research tools, genetic inventions
- ◆ AUTM: Nine Points to Consider
- ◆ TUPC: Research Relationships
- ◆ NCURA/IRI: Guiding Principles for U-I Endeavours
- ◆ Lambert Agreements
- ◆ CASARA – CV Standard



# Recurring Themes

- ▣ Need to increase industry innovation performance through harnessing academic capacity
- ▣ Need for more entrepreneurship at all levels
- ▣ Partnerships are crucial
- ▣ Globally oriented innovation required
- ▣ Process standardization is desired
- ▣ The current tech transfer system is not working
- ▣ IP has become an inhibitor rather than an enabler of innovation



# Channels of Innovation

## Education and People

- Student Educational Projects
- Co-op and Internships
- Workshops and Seminars

## Information, Technology, Expertise Exchange

- Publications and Conference Presentations
- Faculty Consulting
- Continuing Education
- Information, Data and Materials Exchange

## Collaborative Research

## Intellectual Property Assets

## Entrepreneurship & Economic Development

- New Venture Creation
- Technology Company Incubators
- Research Parks



# Shifting Paradigms

Old	Current	Future
<ul style="list-style-type: none"> <li>• Patents</li> <li>• Licenses</li> <li>• Spin-offs</li> <li>• Proprietary industry research funding</li> </ul>	<ul style="list-style-type: none"> <li>• Flexible modes of interacting with industry</li> <li>• Building Knowledge Mobilization Channels</li> </ul>	<ul style="list-style-type: none"> <li>• Industry Engagement</li> <li>• Entrepreneurship</li> <li>• Knowledge Mobilization</li> </ul>

Closed Innovation

Outputs

Transactions

Open Innovation

Impacts

Relationships

5 Years

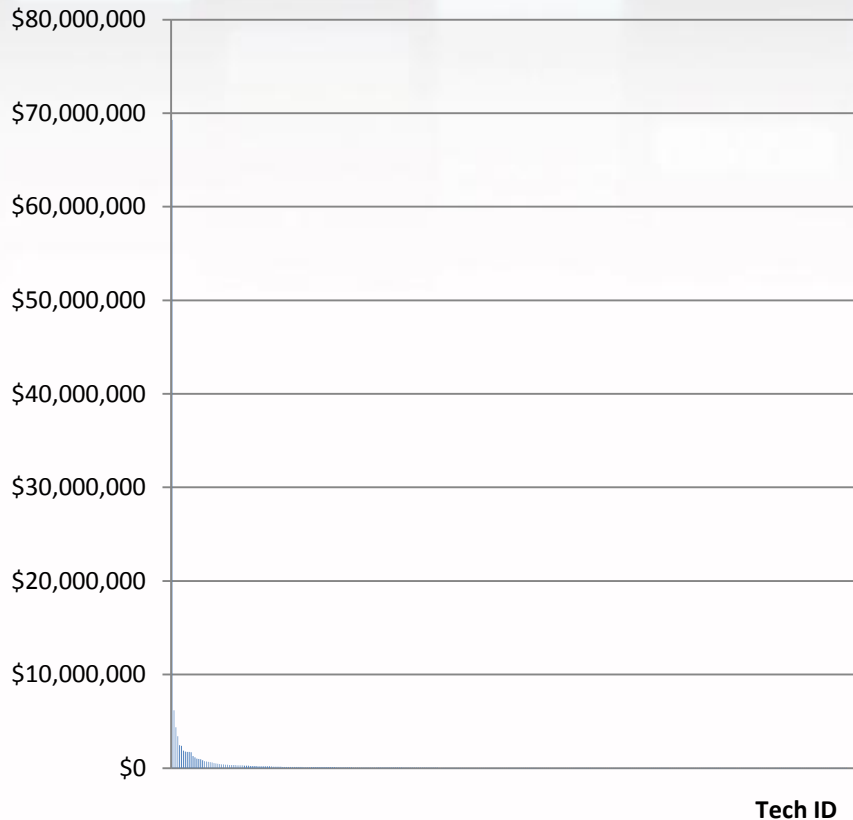


# Licensing Activities

Licensees	New Licenses and Assignments 2008/09	Active License Portfolio	Cumulative Licensing Revenue (>\$115m)
British Columbia	16	121	77%
Rest of Canada	11	33	7%
United States	17	111	13%
Rest of the World	6	337	3%
Total	50	302	100%



# Revenues by Technology



Revenue	# Tech's
>\$5M	2
>\$1M	14
>\$0.5M	19
>\$200k	48
>100k	77

Total # Technologies = 2500  
Total Revenues > \$115m



# Mechanisms of Change

Task Forces

Initiatives

Internal Review

University-Industry Sponsored Research Relationships

University-Provincial Government Research Relationships

Overhead



# Mechanisms of Change

Task Forces	Initiatives	Internal Review
		Status
	International Business Development	VPRI
	Centre for Drug Research and Development	Operational
	Flintbox™	Sold to Wellspring
	UBC Okanagan UILO	Transfer to UBC-O
	West Coast Licensing Partnership	Faltering
	Global Access	In Process
	UILO New Ventures Program	UBC New Ventures
	Canada-California Strategic Innovation Partnership – IP Framework	Completed
	UBC New Ventures	entrepreneurship@UBC



# Mechanisms of Change

Task Forces	Initiatives	Internal Review
<b>Sponsored Research</b>	<b>Technology Transfer</b>	<b>Operations</b>
Online Templates	Impact Metrics	Budget Proposal
Custom Agreements	Portfolio Analysis	Professional Development
Satisfaction Surveys	Emerging Global Standards	Intranet and Wikis
MTA Process	Pre-Assessment Process	
	IT Review Panel	
	Linking to CECRs	



# Building on Core Competencies

Knowledge

Experience

Networks

Tools

- ▣ Knowledge of the academic research enterprise
- ▣ Experience and understanding of science, intellectual property, business and finance fundamentals
- ▣ Broad networks of contacts, partner organizations, service providers and investors
- ▣ Proven management skills



# Company Innovation Capacity Index

Index	Description
1	Minimal innovation capacity organizations
2	Limited innovation capacity organizations <ul style="list-style-type: none"> <li>✓ Limited awareness of concepts and benefits</li> <li>✓ Limited internal expertise in R&amp;D or research collaborations</li> <li>✓ Few, if any, resources available to dedicate to non-core day-to-day operations</li> </ul>
3	Closed Research Organizations <ul style="list-style-type: none"> <li>✓ Developed closed internal R&amp;D capacity</li> <li>✓ Highly proprietary approach</li> <li>✓ Willing to work with others solely on their terms</li> </ul> Attempts at collaboration are torturous and conflict with practices of an open university.
4	Collaborative Research Organizations <ul style="list-style-type: none"> <li>✓ Actively participate in collaborative research</li> <li>✓ Driven by a select number of champions within the organization</li> <li>✓ Growing level of experience with collaboration</li> </ul> Benefits are not yet realized or codified
5	Open Innovation Leaders <ul style="list-style-type: none"> <li>✓ Embraced concept, developed organizational capacity, executed on multiple occasions, and derived direct benefits</li> <li>✓ Measures of success: new products, dedicated professional staff, BERD, and patents</li> </ul> Examples: Procter and Gamble, 3M, Weyerhaeuser



# Today's Discussion

- ▣ Industry engagement, knowledge mobilization, & entrepreneurship: is this the right triumvirate?
- ▣ Local Industry Engagement: Is it through research or education?
- ▣ Models for Industry Engagement
  - CRIAQ: Quebec aerospace
  - Industry Vouchers: Atlantic Canada
  - Affiliate Programs: Berkeley & Stanford
  - MITACS Accelerate Program
  - CECRS
    - GreenCentre Canada, Centre for Drug Research & Development
- ▣ Wesley Clover



# Today's Discussion

- ▣ Partnering with government labs: asset or liability?
- ▣ How do we leverage our global networks?
- ▣ What are the roles of the polytechnics and community colleges?
- ▣ What are the sources of financial support for internal capacity building and project funding?
- ▣ Is this a central, distributed, or hybrid responsibility across campus?
- ▣ Policy evolution – do current policies serve the industry engagement needs?



# Contact



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