

Dalhousie Research Funding Community Discussions - VPRs Office and Faculties

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Winter 2012



**DALHOUSIE
UNIVERSITY**

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Where we are

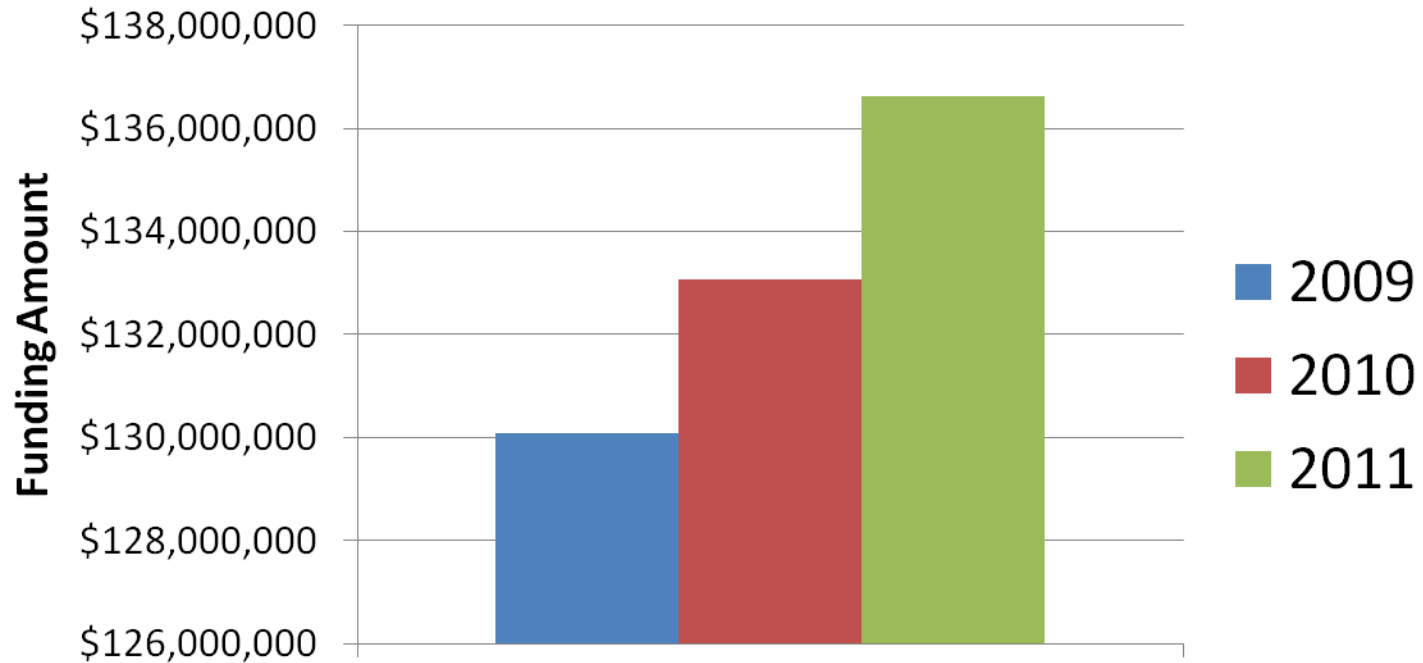
Developing Research Metrics

- **Office of Institutional Analysis and Research (OIAR)**
 - ▶ New Executive Director
 - ▶ Enhance role in producing institutional information and data
 - ▶ Additional support in preparing research oriented data

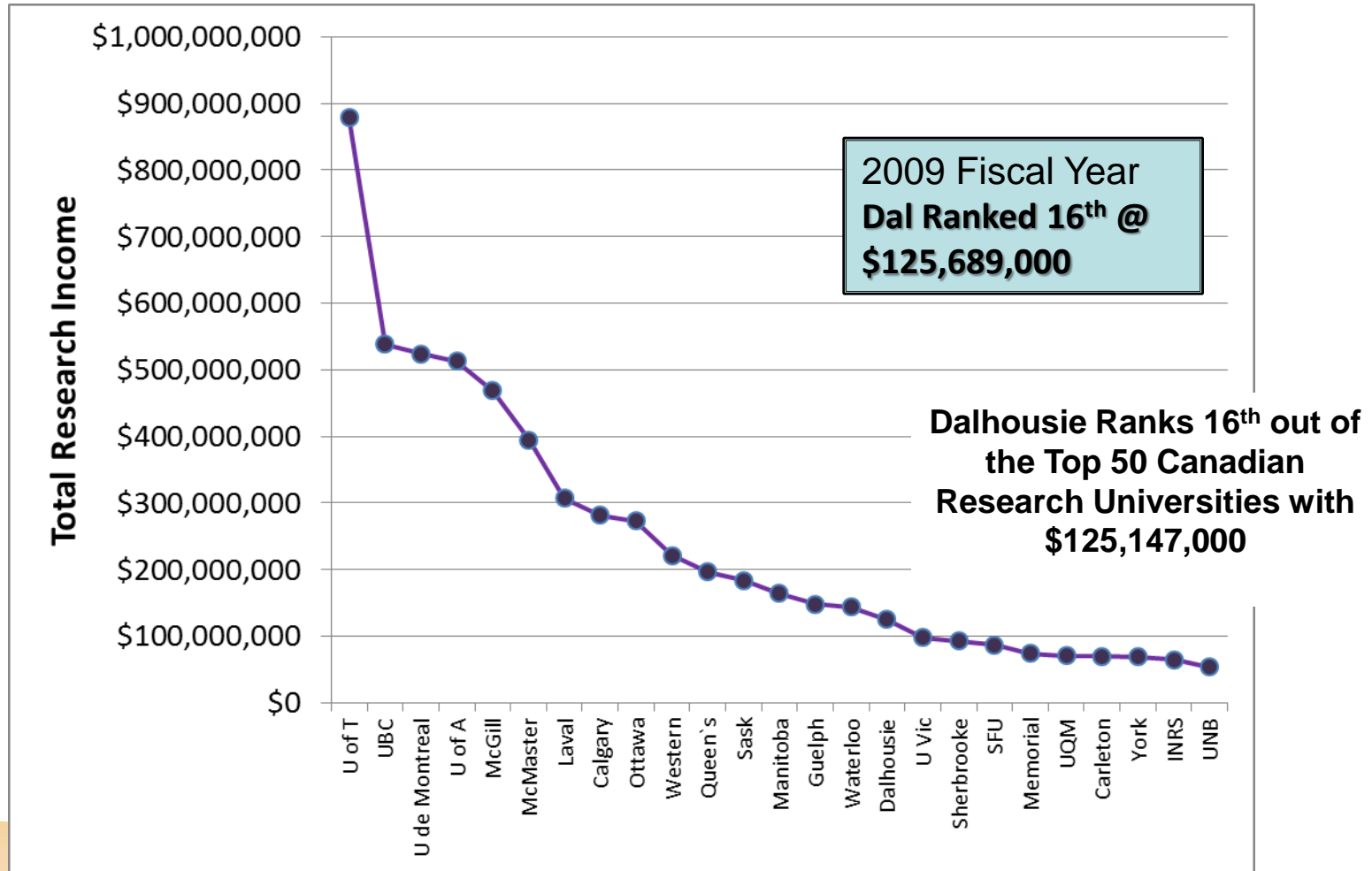
- **Other metrics**
 - ▶ Working with FGS to assemble HQP impact data
 - ▶ Participating in U15 assessment of bibliometrics
 - ▶ Need performance data
 - ▶ Suggestions from faculty

- **SAPRC Research sub-committee**
 - ▶ Senate annual report template

Total Dalhousie Research Funding

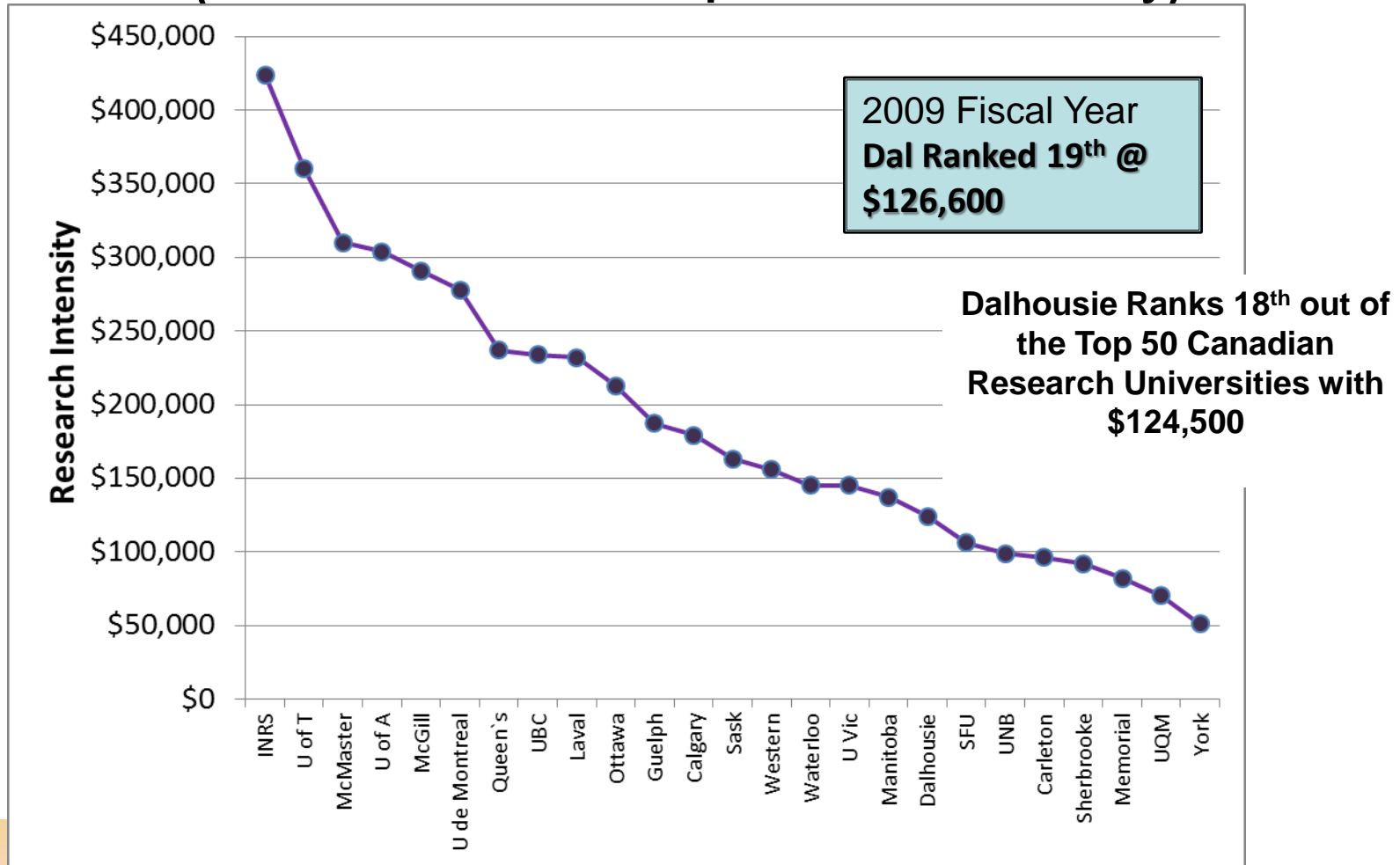


Granting Councils Total Sponsored Research Income: Research Dollars 2010 (Top 50 Canadian Universities)



Information taken from <http://www.researchinfosource.com/top50.shtml>

Granting Councils Sponsored Research Income: Research Intensity 2010 (Canadian Universities per Full Time Faculty)



Information taken from <http://www.researchinfosource.com/top50.shtml>

Canada`s Three Federal Research Agencies (Councils)

Canada Institutes of Health Research (CIHR)

Social Sciences and Humanities Research Council (SSHRC)

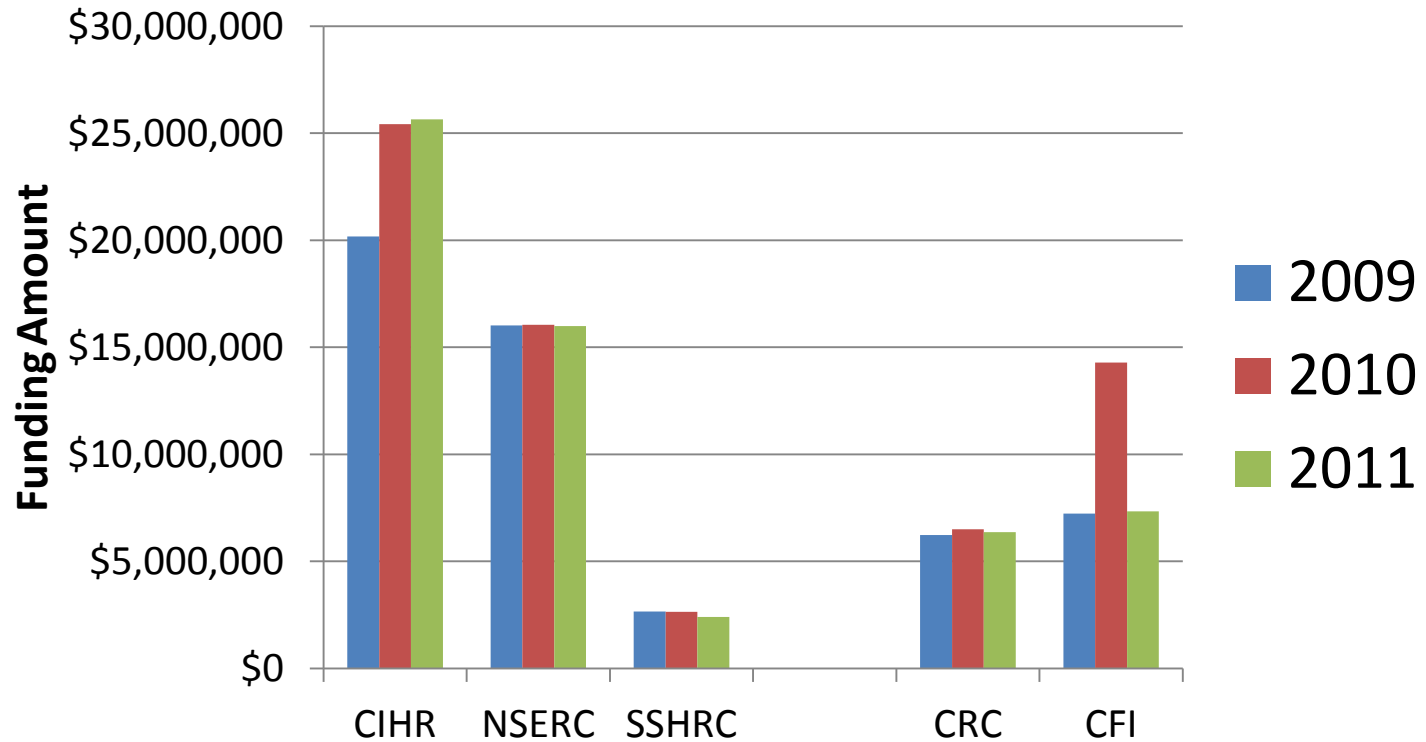
Natural Sciences and Engineering Research Council (NSERC)

plus

Canada Research Chairs (CRC)

Canadian Foundation for Innovation (CFI)

Major Grant Sources Dalhousie Trend



G13 Comparisons (2 years out of date!)

- University of British Columbia
- University of Alberta
- University of Calgary
- University of Western Ontario
- University of Waterloo
- McMaster University
- University of Toronto
- Queen`s University
- University of Ottawa
- Université de Laval
- McGill University
- Université de Montreal
- Dalhousie University
- **University of Saskatchewan**
- **University of Manitoba**

U15 universities

Federal Tri-council Research Funding

G13 Federal Research Council Comparisons

- \$/Awards(average size of grant)
- \$/Researcher (research intensity)

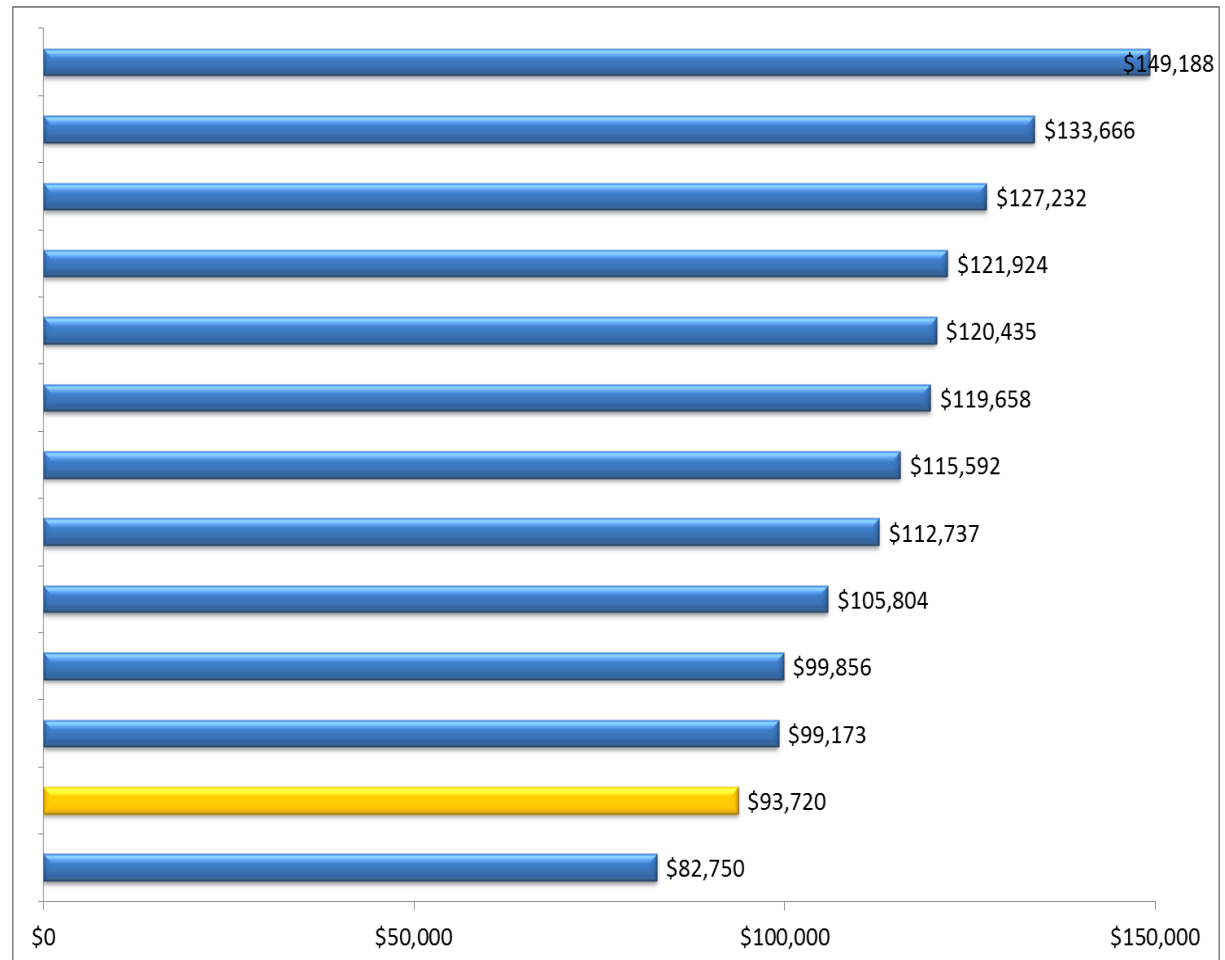
Dalhousie University

- Relationship of applications to awards
- Examine 2008-2009 funding by type

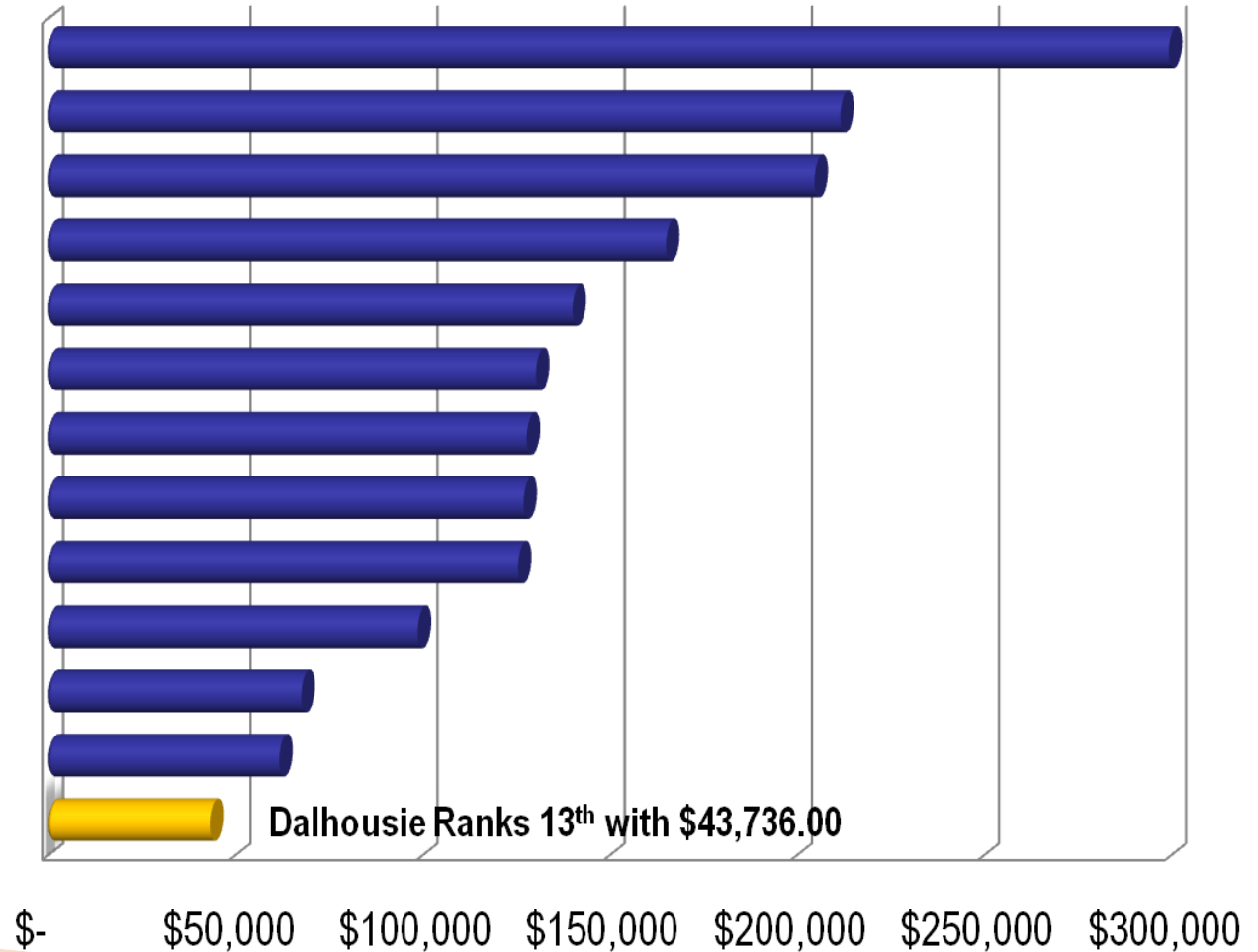
CIHR G13 – Average Award per Principal Investigator

2007 Fiscal Year
Dal Ranked 11th @
\$102.969

Dalhousie University



CIHR G13 – Research Intensity: Average Amount per Potential Applicant

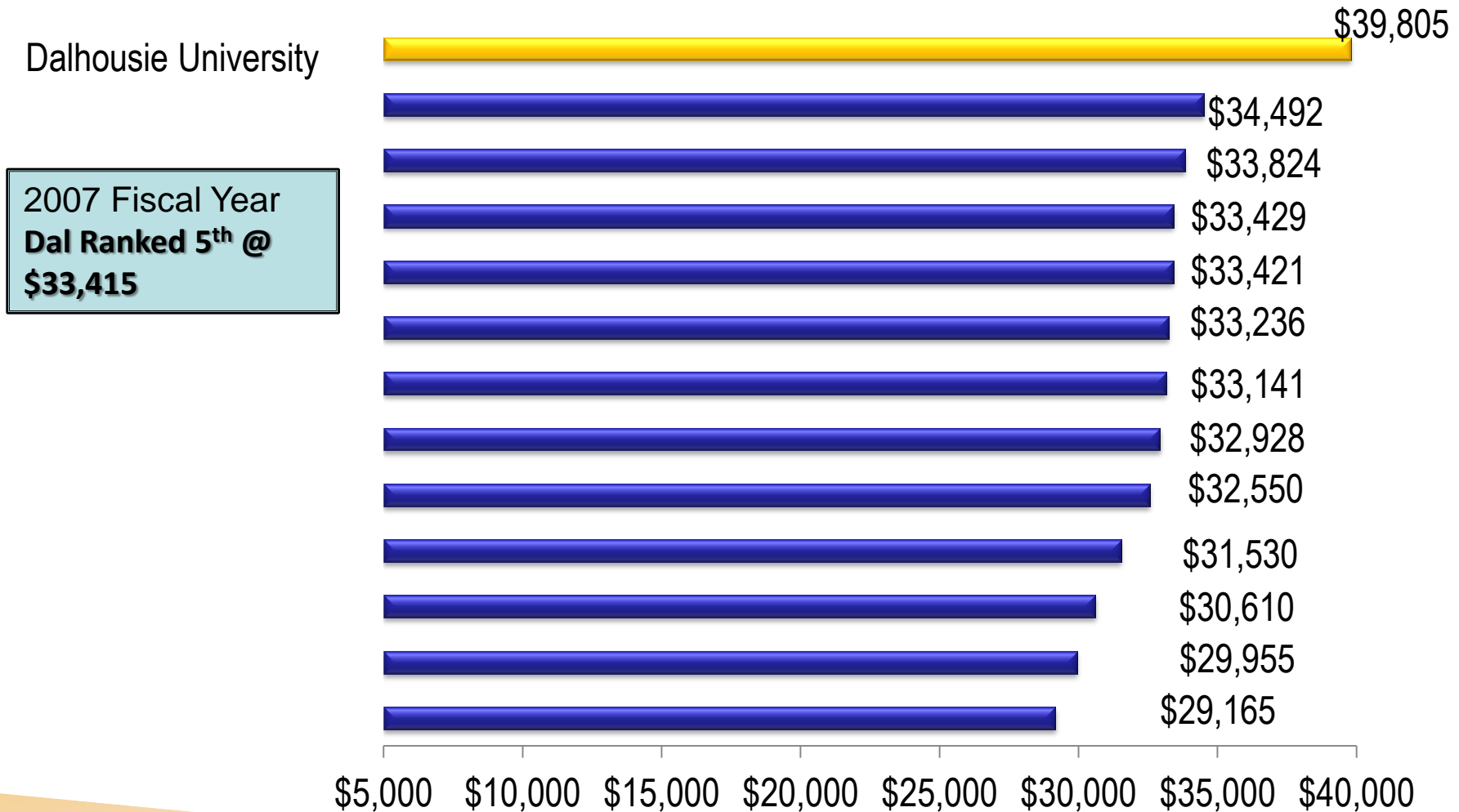


2007 Fiscal Year
Dal Ranked 13th @
\$44,368

Dalhousie Ranks 13th with \$43,736.00

G13 SSHRC 2008-2009

Average Amount of Award per Principal Investigator



SSHRC G13 Research Intensity: Average Amount per Potential Applicant



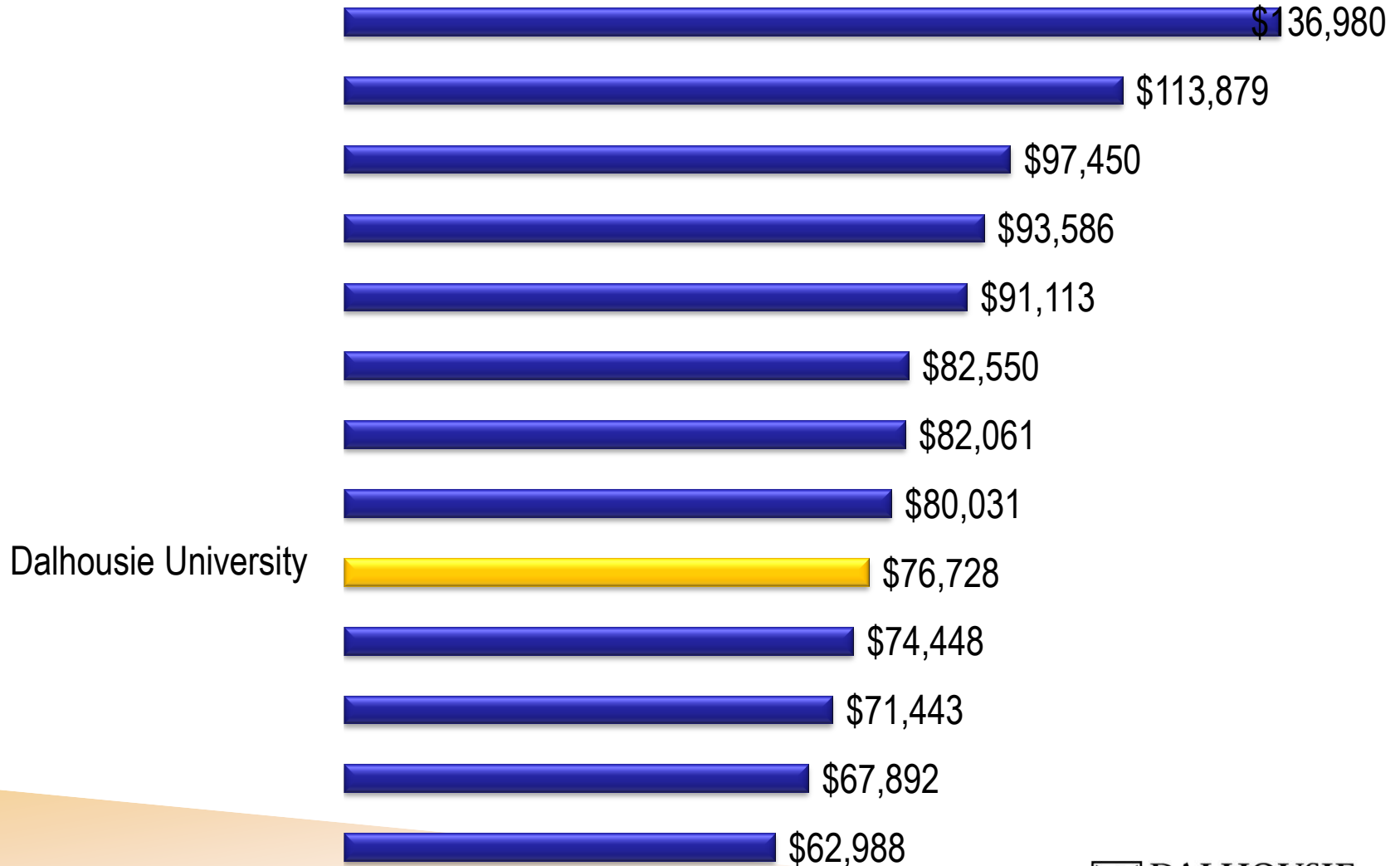
G13 NSERC 2008-2009

Average Amount per Principal Investigator



G13 NSERC 2008-2009

Average Amount per Potential Applicant



G13 NSERC Discovery Awards - Research Intensity: Average Amount per Potential Applicant



2007 Fiscal Year
Dal Ranked 7th @
\$34,589

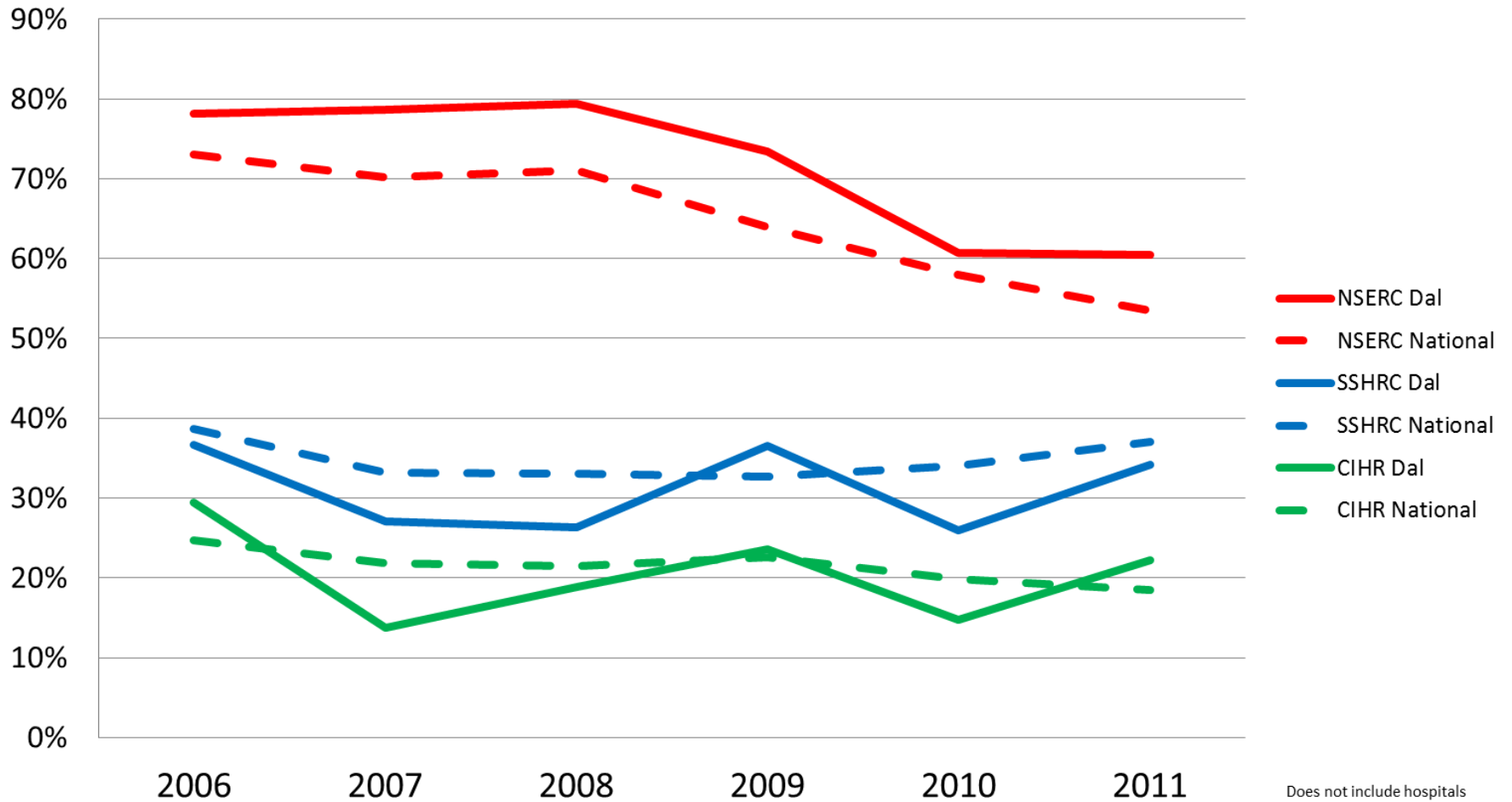
**Individual Operating Awards
by Faculty
Total for 2006 to 2011 period
(6 years)**



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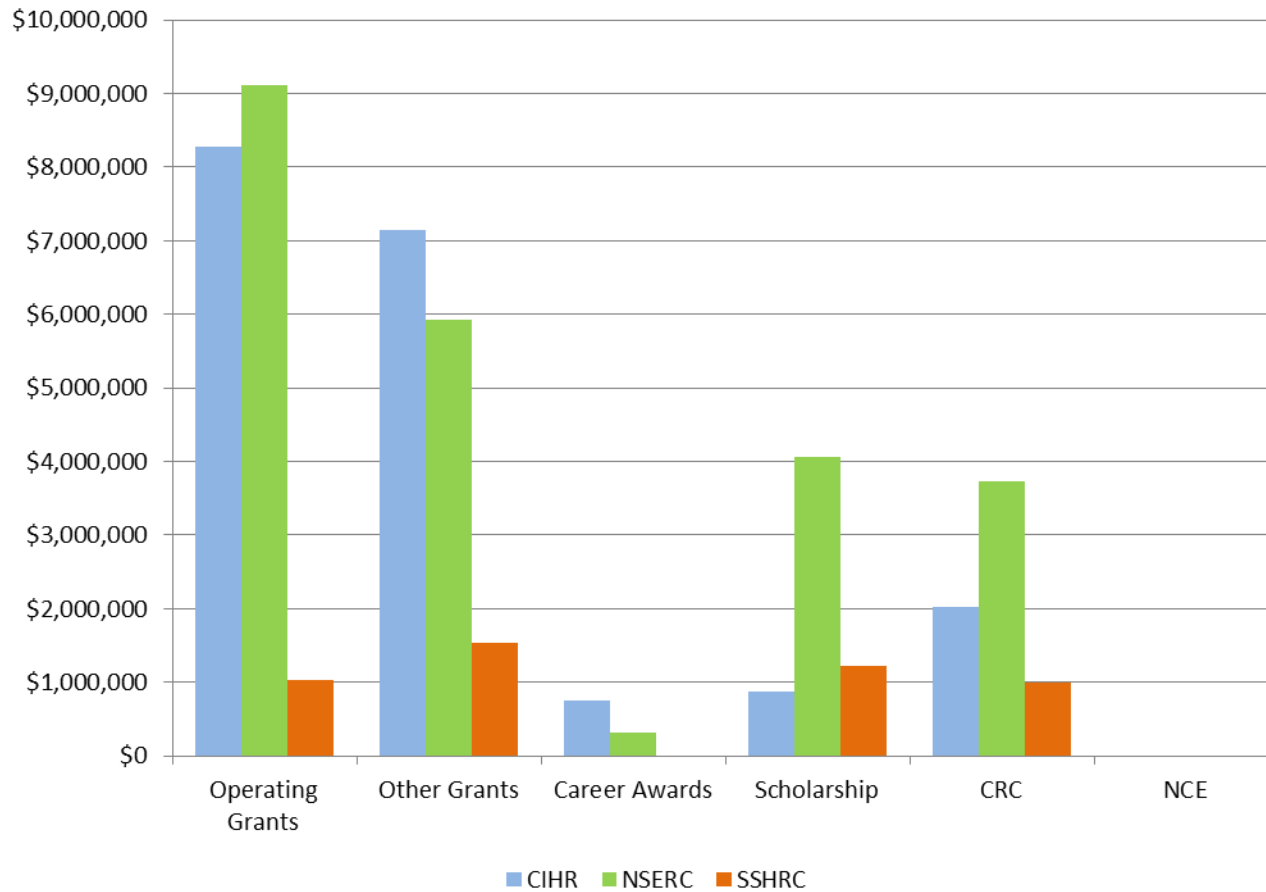
Tri Council Operating Grant Success Rates Dalhousie vs National



Funding by Type for 2008-2009

- ▶ **Operating Grants**
- ▶ **Other Grants**
- ▶ **Career awards (chairs etc.)**
- ▶ **NCE**
- ▶ **CRC (treated differently than other career awards)**
- ▶ **Scholarship (graduate scholarships, bursaries, PDF)**

Distribution by Funding Type



Importance of Tri-agency Funds

- **Tri-agency Grants (\$37 million/year -3 yr average 2010)**
- **Leverages other programs (additional \$20 million)**
 - ▶ **Indirect Cost Grant (\$7.8 million 2010)**
 - ▶ **CRC allocations (\$6.5 million 2010)**
 - ▶ **CFI allocations (\$5.7 million – 5 yr average 2010)**
- **Indirect Leveraging**
 - ▶ **Scholarships**
 - ▶ **Programs (NSERC USRA, Engage etc.)**

Summary: Tri-Council Grants Summary

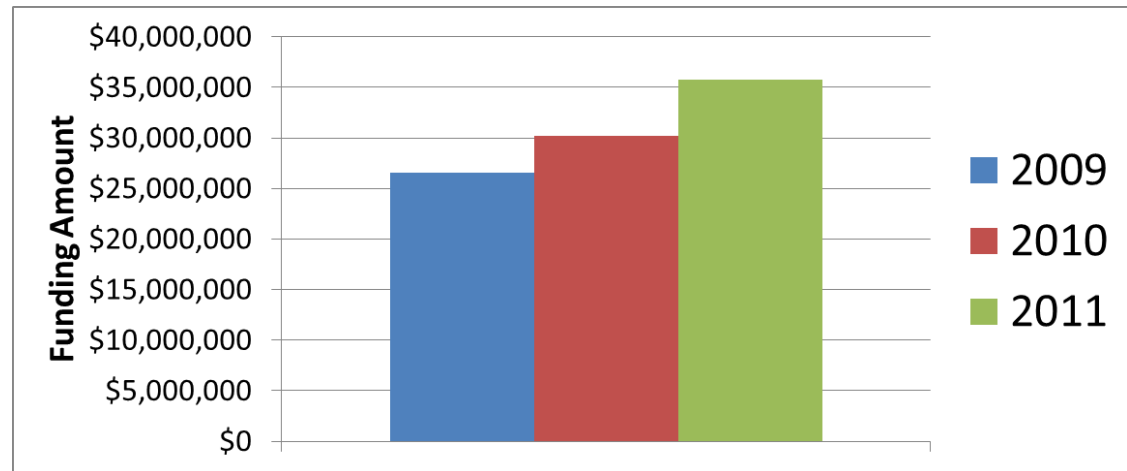
- **Tri-agency funding is increasingly competitive**
- **It will be more challenging to maintain success levels and stem reduction in share of national dollars**
 - ▶ **Need for high quality applications to ensure awards**
 - ▶ **Need for support and mentoring to ensure high quality applications**
 - ▶ **More work on helping those struggling with proposals**
 - ▶ **Need more emphasis on collaborative grants**
- **Partnership with DRS and Faculty**

Industry Engagement Funds

- **Research Contract and Clinical Trial Funding**
- **Atlantic Innovation Fund**

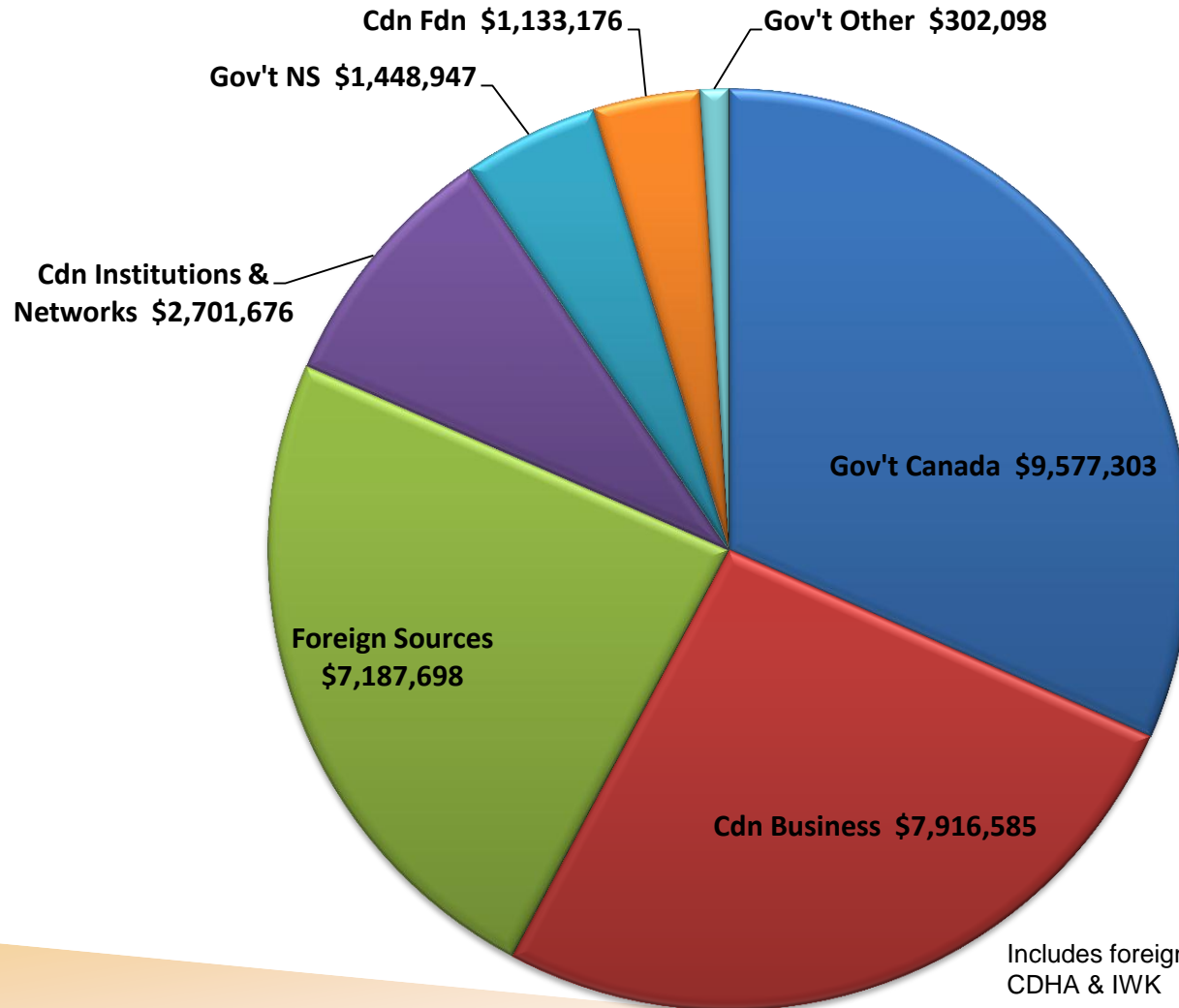
2011-Oct. Industry Engagement Successes

- ▶ **\$18.2 million in contracts**
- ▶ **\$17.6 million in clinical trials**
- ▶ **Partners with new agreements include**
 - Lockheed Martin Corporation
 - Boeing Company
 - Government of Nunavut
 - 3M Canada
 - Canarie Inc.
 - Pfizer Canada Inc.
 - Glaxosmithkline



Dalhousie Funding by Contract Sources

FY 2010 Disbursements



Includes foreign contracts, clinical trial contracts, CDHA & IWK

Total = \$30,267,482

INDUSTRY LIAISON AND INNOVATION

within

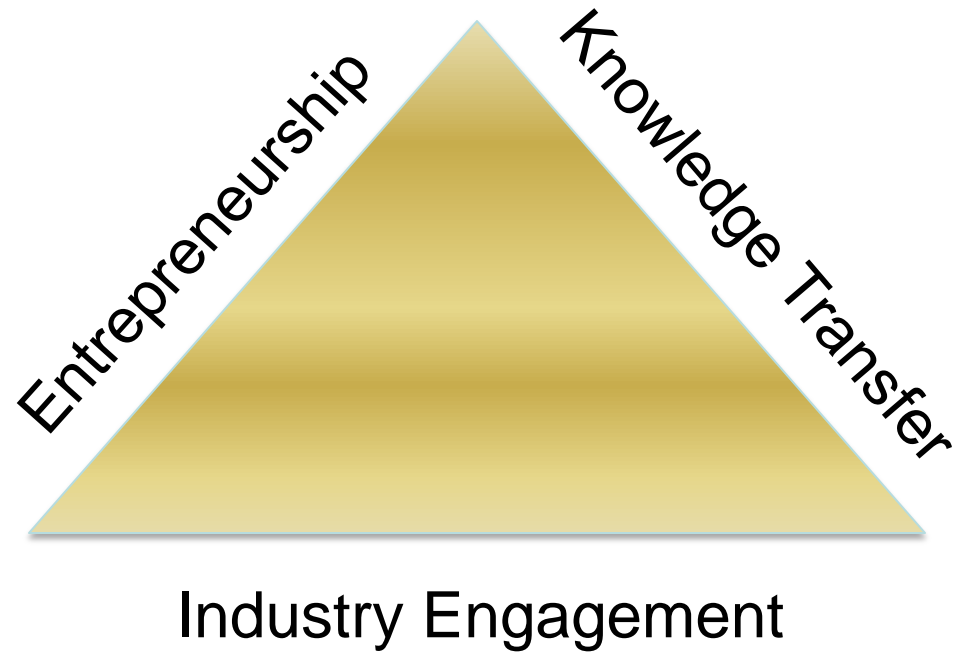
Dalhousie Research Services

Stephen Hartlen, AVP

Mission

“ To support the research community at Dalhousie University and its affiliated entities by fostering innovation, entrepreneurship, and industry engagement to increase research and development as well as knowledge transfer to industry for public and economic development benefits.”

Core Activities



Working with the Research Community

- Assistance in engaging industry
- Match making between industry and researchers
- Business development for contract research
- Education and advice on intellectual property
- Specific assistance with NSERC partnership funding
- Specific assistance with ESCF, IM Fund and AIF
- Business planning ~ starting a company
- Mentoring, entrepreneurship and HQP development
- Finding receptor capacity for spin outs

VPR's immediate initiatives

Strategy for Recent Two Years

- **Focus on Large Grant Success**
- **Strategic Use of Chair Programs**
- **Promote More HQP Opportunities for Funding and Training**
- **Improve Industry Engagement and Provincial Alignment**

Some Examples of Recent Large Scale Initiatives 2010 and 2011

- Collaborative Research and Training Experience Program (CREATEs)
- Networks of Centre's of Excellence (NCEs)
- Strategic Network Grants (SNGs)
- Canada Excellence Research Chairs (CERCs)
- New Major Operating Grants
- Automobile Partnership Program
- New Chairs

Chairs

● Industrial Research Chairs

- ▶ IRCs (funded by NSERC and industry)
 - 3 currently held (2 in 2008)
 - 1 pending approval
 - 5 proposals in development
 - 3 in planning

● Canada Research Chairs

- ▶ CRCs (funded by the federal government)
 - 40 currently held
 - 9 in recruitment
 - 1 pending nomination

Research Support Focus Groups

● Researchers at different career stages

- ▶ Active Researchers at Dal for over 25 years
- ▶ Women Researchers at Dal for 1—25 years
- ▶ Researchers at Dal for under 3 years
- ▶ CRC Researchers Tier 1 and Tier 2 Groups

● Key messages

- ▶ Need for mentorship at department and faculty level
- ▶ Better financial support for graduate students
- ▶ Quicker, less expensive service by Facilities Management (CFI/labs)

SUMMARY: What this means for Dalhousie

- Our overall research funding is growing
- Our share of tri-council funding is static at 3.3%
- Large-scale strategic initiatives are becoming successful
- Need to provide more support for Tri-Council proposals (and hence more CRCs and a higher CFI allotment)
- Dalhousie's contract research funding has grown. G13 data are needed to see if it has grown elsewhere.

What Dalhousie needs to do

- **Increase and support its engagement with industry and alignment with provincial government's priorities**
- **Increase and support its Tri-council funding by**
 - ▶ **Supporting and mentoring new and emerging researchers**
 - ▶ **Promoting collaborative proposals, especially in areas aligned with Dalhousie strategic priorities**

Dalhousie Senior Administrators' Retreat

Research Strategies

Martha Crago, Vice President (Research)

John Newhook, Associate Vice President (Research)

Stephen Hartlen, Assistant Vice President (ILI)

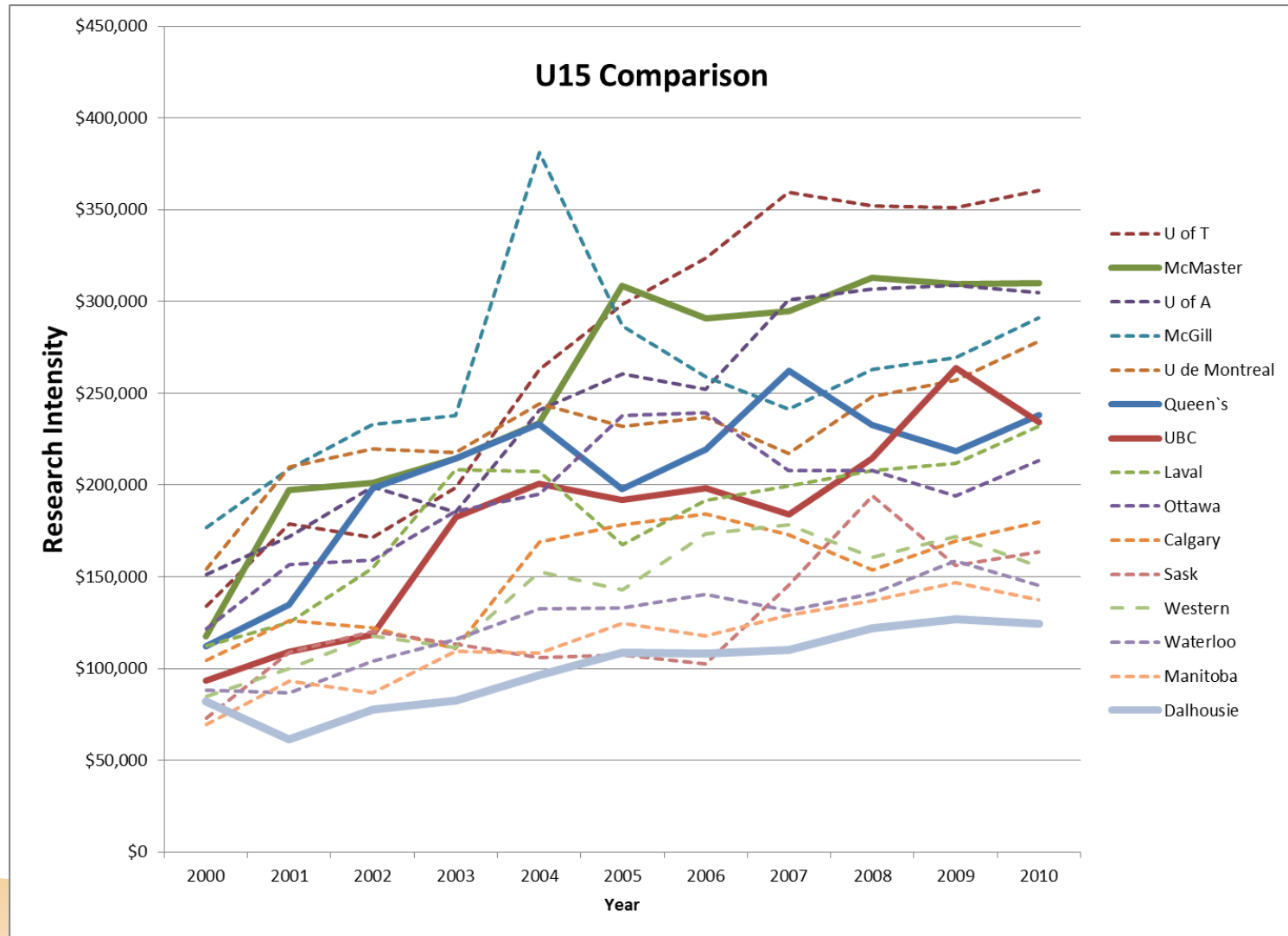
Sept. 2012



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Context



Fundamental Question:

Are we where we want to be ?.....

Do we need to grow at same rate – status quo

Do we need to grow faster - more pro-active

We do not want to lose momentum or position !

We need a research strategy for moving forward.



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Research Strategy Moving Forward:

1. Updated SRP
2. Develop Framework for Support of Research

Strategic Research Plan –

identify areas to focus efforts to:

- ▶ recruit Canada Research Chairs;
- ▶ secure infrastructure investment through CFI;
- ▶ access other funding streams and collaborations;
- ▶ to build on current and emerging capacity

Developed in Consultations with Deans and DRAC

Approved by Senate

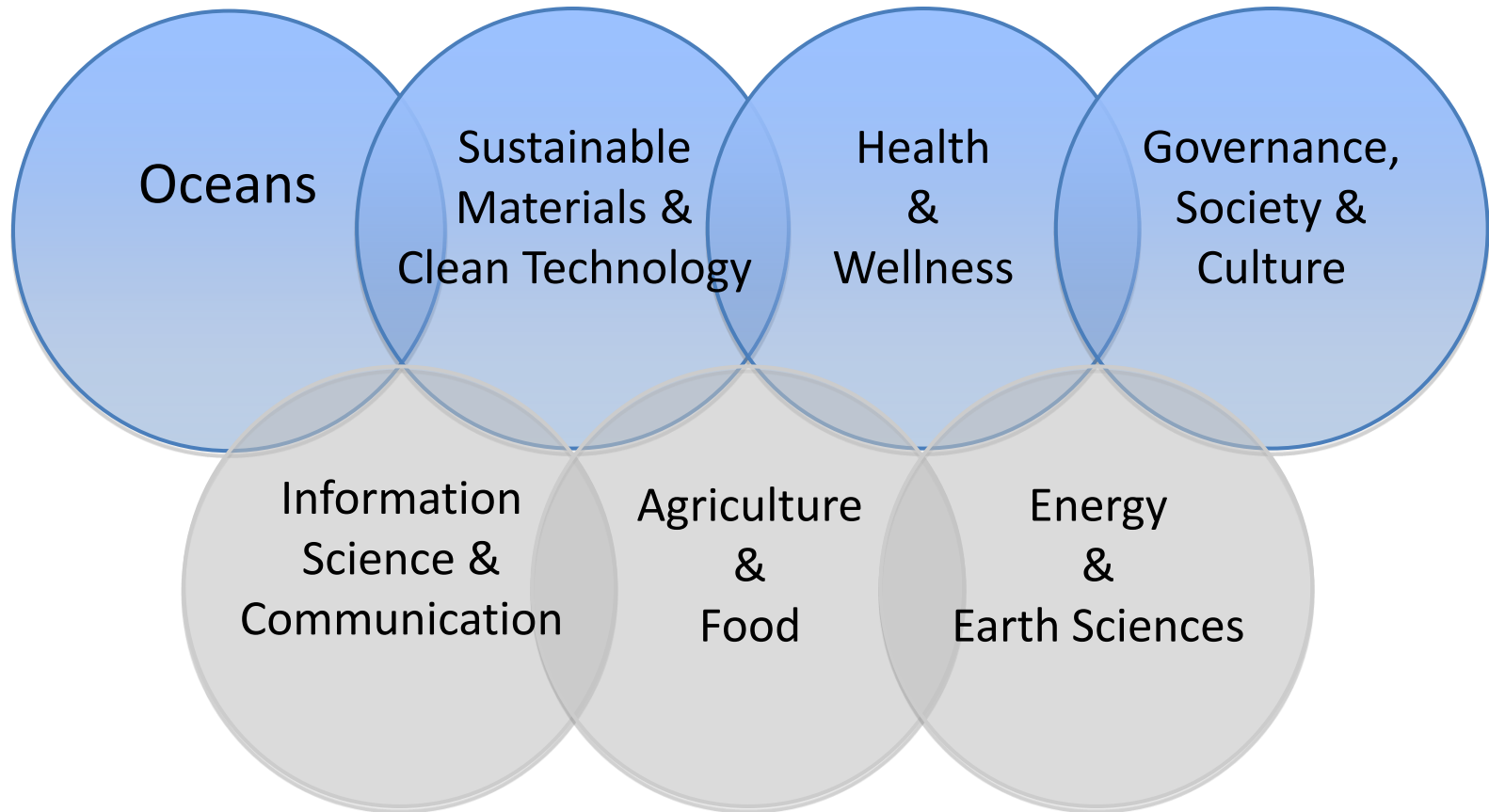
Federal Government Research Priorities and Sub-priorities

Priority Areas	Sub-priority Themes
Environment	Water (health, energy, and security)
	Cleaner methods of extracting, processing and utilizing hydrocarbon fuels, including reduced consumption of these fuels
Natural Resources and Energy	Energy production in the oil sands
	Arctic (resource production, climate change adaptation, and monitoring)
	Biofuels, fuel cells, and nuclear energy
Health and Life Sciences	Regenerative medicine
	Neuroscience
	Health in an aging population
	Biomedical engineering and medical technologies
Information and Communications Technologies	New media, animation and games
	Wireless networks and services
	Broadband networks
	Telecom Equipment

Province of Nova Scotia Priorities

- **Oceans Technology**
- **Aerospace & Defence**
- **Life Sciences**
- **Information and Communications Technology**
- **Financial Services**
- **Clean Technology**

Dalhousie's Priority Research Areas and Areas for Potential Growth



Framework for Support of Research–

Specific initiatives or programs to support research:

- ▶ Support granting success;
- ▶ Early career and mid-career;
- ▶ Industrial and provincial collaborations;
- ▶ Major and operating level initiatives;
- ▶ Post-award support

Developed in Consultations with Deans and DRAC

VP Research Document

Engaging Research Community

- **Series of Faculty Presentations highlighting Dalhousie Research Performance with respect to:**
 - ▶ Where is Dal in U15
 - ▶ Tri-agency and importance of these funds
 - ▶ Industry engagement and funding
 - ▶ New major initiatives

- **COMPLETED October 2012**

Engaging Research Community

- **follow-up survey to further investigate the low ranking for Support for Research on the two employee surveys is being designed.**
 - ▶ **Associate deans have been consulted**
 - ▶ **Deans and other Admin Units are now being consulted**

Fall 2012

Supporting Grant Success

● Pre-Award

- ▶ **Facilitation by DRS** (may include committee and external consultants on major proposals)
- ▶ **Best Practices in Peer Review at Faculty Level**

● Post-Award

- ▶ **Management committees for large awards** (FS,DRS, HR and others as necessary)

Example of Recent Activities