

People. Discovery. Innovation.
Les gens. La découverte. L'innovation.



Natural Sciences and Engineering
Research Council of Canada

Conseil de recherches en sciences
naturelles et en génie du Canada

Canada

What We Do at NSERC

- We invest more than \$1 billion every year in people, discovery and innovation



People

NSERC supports about 12,000 science and engineering students earning Master's and Ph.D. degrees



Discovery

NSERC supports the research of more than 11,500 university & college professors



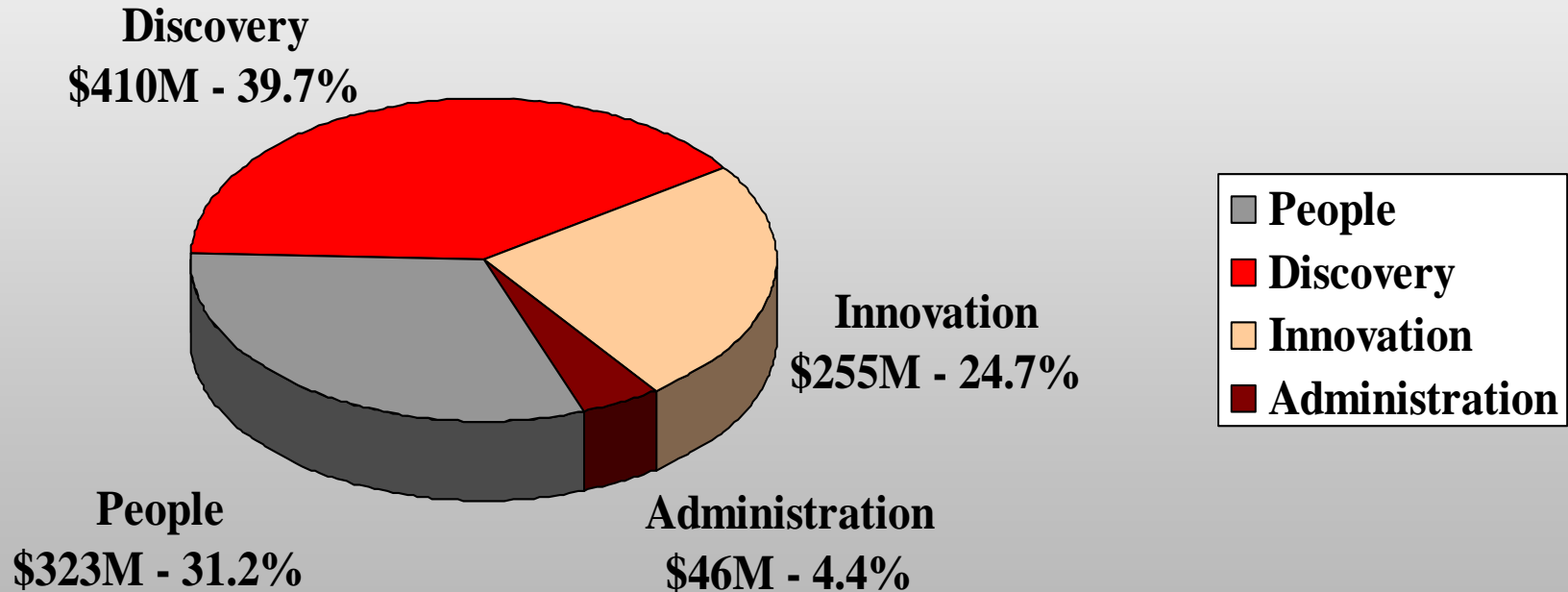
Innovation



20% of NSERC's budget goes to funding university-industry research partnerships

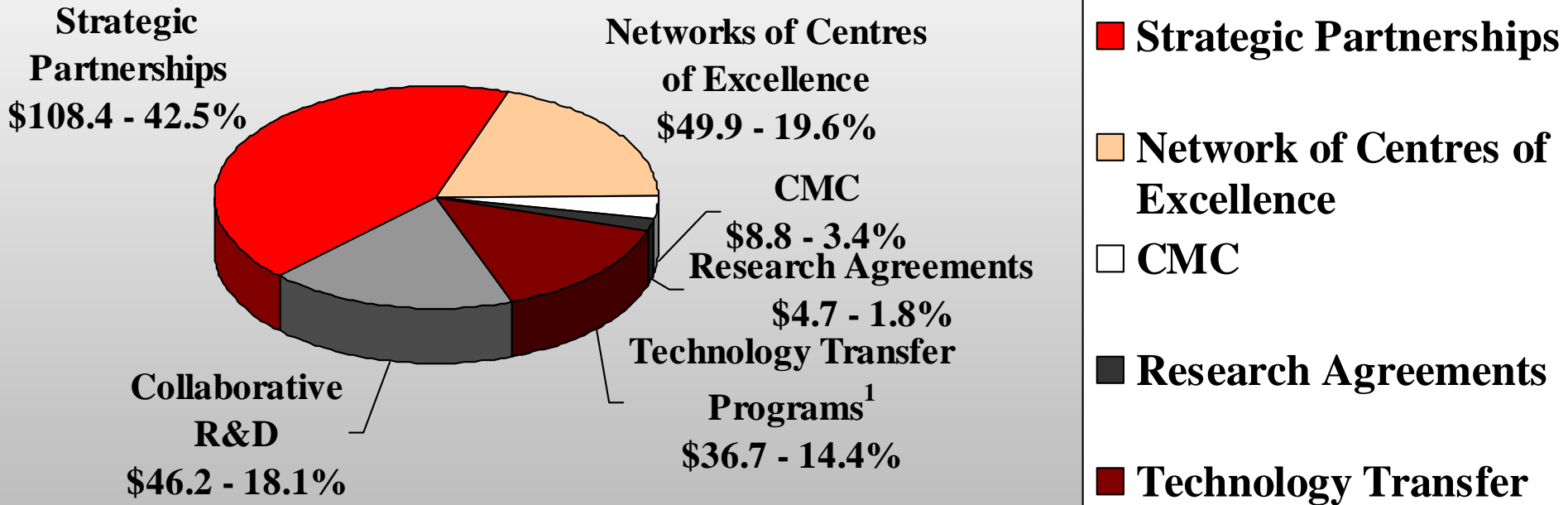


NSERC Budget 2008-09 (millions of dollars)



Total: \$1.034 Billion

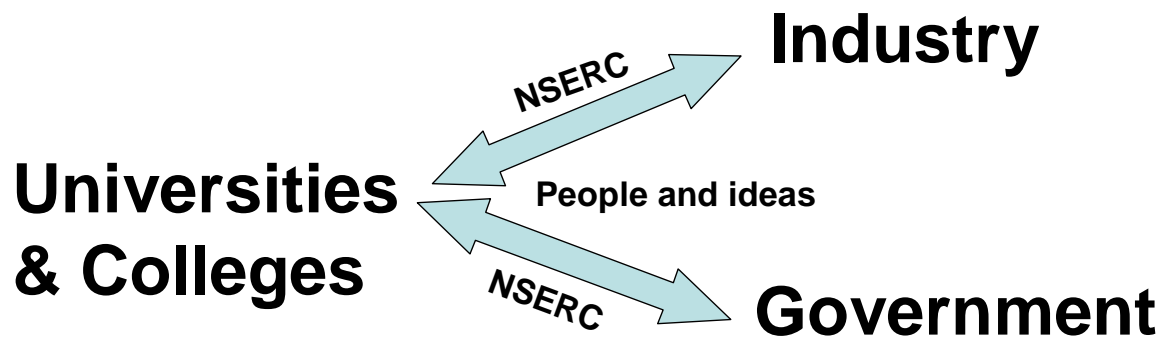
Innovation Programs Budget 2008-09 (millions of dollars)



Total: \$255M

1. Includes CECR (\$24.4M) and College and Community Innovation Program (\$2.1M).

NSERC's Research Partnerships Programs' goal ...



To foster collaboration between academic researchers and other sectors in order to develop new knowledge and expertise and to transfer these to Canadian-based organizations for the economic and/or social benefit of Canada.

Research Partnerships Programs (RPP)

- Strategic Project Grants (SPG)
- Strategic Network Grants (SNG)
- Collaborative R&D Grants (CRD)
- Industrial Research Chairs (IRC)
- Idea to Innovation (I2I)

Strategic Project Grants (SPG)

- **Early stage university research with the potential to lead to breakthrough discoveries in the future (5-10 yrs)**
- **Active involvement of non-academic participants - no cash required**
- **Target areas of national importance and emerging areas of potential significance**

Seven Target Areas

- **Advanced Communications and Management of Information**
- **Biomedical Technologies**
- **Competitive Manufacturing**
- **Healthy Environment and Ecosystems**
- **Quality Foods and Novel Bio-products**
- **Safety and Security**
- **Sustainable Energy Systems (Production, Distribution, Utilization)**

Supporting Organizations

Private sector

- Canadian-based companies with Canadian operations (R&D or manufacturing, producer groups) that can apply the research results for economic gain

Non-academic public sector

- Canadian government organizations that can apply the research results to strengthen policy / regulatory framework

Supporting Organizations (continued)

A supporting organization must also:

- Have a demonstrated interest in the project (letters of support, in-kind and/or financial support)
- Be involved at all stage of the research (help to develop the proposal, interact with researchers and students, provide input to the project)
- Validate the results of the research

Why Strategic Project Grants?

- Significant financial support for up to 3 years for students, post-docs, consumables, ...
- Although there must be significant involvement of the partner, a cash contribution is not required
- 25-30% success rate
- Annual competition

Strategic Projects

Selection Criteria

- ✓ Originality of the research
- ✓ Quality of the research
- ✓ Project work plan
- ✓ Quality of the applicants as researchers
- ✓ Training potential
- ✓ Interactions with the Supporting Organizations
- ✓ Benefits to Canada and the Supporting Organizations

Strategic Network Grants

- Addresses large-scale complex research problems
- Benefit from a network or cluster approach – several universities and industry partners involved in exploring different aspects of a common research question
- Requires a management structure
- Promotes multidisciplinary research
- Creates unique training opportunities
- 5 year grants (up to max. \$1M/yr from NSERC)

Selection Criteria

- ✓ **Merit of the research proposal**
- ✓ **Need for a network approach**
- ✓ **Interactions and partnerships**
- ✓ **Training**
- ✓ **Management and budget**
- ✓ **Benefits to Canada and the partners**

Collaborative R&D Grants (CRD)

- Main vehicle for Canadian firms to work with university researchers
- At any point in the R&D spectrum
- Support well-defined, focused projects with specific short- to medium-term objectives, or
- Discrete phases in longer-range research programs

Collaborative R&D Grants (CRD)

- 1 to 5 years duration, usually 2 to 3 years
- Average grant \$60,000 per year
- Industry responsible for at least 1/2 costs & must exploit results
- Flexible leverage: cash and in-kind
- 80% success rate
- No fixed deadlines

Collaborative R&D Grants (CRD)

Selection Criteria

- ✓ Scientific merit
- ✓ Research competence of team
- ✓ Industrial relevance
- ✓ Private-sector support
- ✓ Contribution to training
- ✓ Benefits to Canada

Industrial Research Chairs (IRC)

- Prestigious appointment of a distinguished researcher
- Industry provides 50% of cost in cash
- Initial appointment is for 5 years (renewable)
- Currently over 120 active faculty positions
- A significant university research program is established or enhanced in area of interest to industry

Industrial Research Chair (IRC)

Selection criteria

- ✓ Excellence of the candidate
- ✓ Quality of the proposal
- ✓ Industrial relevance and benefits
- ✓ Training of highly qualified personnel
- ✓ Benefits to the university
- ✓ Appropriateness of the setting

Idea to Innovation (I2I)

- To accelerate pre-competitive development of promising technology and promote its transfer to Canadian companies
- Up to 3 years of funding in two phases
- Phase I – Reduction to Practice
 - Funded completely by NSERC, up to \$125K
- Phase II – Technology Enhancement
 - Costs shared with industrial partner

Industrial Scholarships & Fellowships

- **Administered by NSERC's Scholarships and Fellowships Division:**
 - **Undergraduate Student Research Awards (USRA) in Industry**
 - **Industrial Post-Graduate Scholarships (IPS)**
 - **Industrial Research & Development Fellowships (IRDF)**

Comments /Questions??

Contact:

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