NSERC Research Partnership Programs

- Expanding know-how
- Creating opportunities
- Finding solutions
Collaborative Research & Development (CRD) Grants

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Advantages of a CRD Project

- Flexible Mechanism Supporting Industry-Driven Collaborative Projects

- Breadth of R&D Spectrum (research challenge required)
- 1 to 5 year projects
- Apply at any time – no deadlines
- Defined projects with milestones and deliverables
  - Apply your expertise to an industrial problem
  - Give your students experience solving an industrial problem
  - Access to interesting problems, proprietary data and materials
    - Success Rate of about 85%
    - Budget not cash limited at this time
How Does the Leverage Work?

Company

$100K Cash

$60K In-kind

$60K Cash

CRD
$180K cash project
+ company time/materials

NSERC

$120K

$40K for O/H

If your leverage is wrong, we won’t peer review until it is fixed.
**SR&ED for Collaborative Projects - Ontario**

**University Collaborative Project**

- **Total Cash $180,000**
  - (Total Research value $240,000)

**Company SR&ED Calculation**

<table>
<thead>
<tr>
<th>SR&amp;ED Project Amounts</th>
<th>SR&amp;ED Investment Tax Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Party payment cash</td>
<td>Combined SR&amp;ED Credit</td>
</tr>
<tr>
<td></td>
<td>$100,000</td>
</tr>
<tr>
<td>Salary (in-kind, SR&amp;ED labour)</td>
<td>Combined Tax on SR&amp;ED Credit</td>
</tr>
<tr>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td>Materials/Equipment (in-kind)</td>
<td>($12,280)</td>
</tr>
<tr>
<td></td>
<td>30,000</td>
</tr>
<tr>
<td>Overhead (65% of SR&amp;ED salaries)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ 19,500</td>
</tr>
</tbody>
</table>

**SR&ED claim** $179,500  Total amount of ITC after Tax $66,920

**Cash outlay is ONLY $33,080** for a project with a total research value of $240,000  *Savings = $100,000 - $66,920

**~7X VALUE**
CRD Proposal Components

- Application for a Grant (Form 101) Parts I and II
- Personal Data Forms (Form 100) + CVs of collaborators (6 pages max)
- Form 183A (partner’s information and contributions)
- Letter of support describing partner’s involvement
Selection Criteria

Projects are evaluated against six criteria:

- **Scientific Merit**: project must be scientifically sound, technically feasible, and promise to generate new knowledge or apply current knowledge in an innovative way.

- **Research Competence**: the team must have all of the expertise need to address the objectives and complete the project.

- **Industrial Relevance**: demonstrate that the work will benefit the partner and be exploited to benefit the Canadian economy.
Projects are evaluated against six criteria (cont’d):

- **Private-sector Support**: the partner must contribute to the project and be in a position to exploit the results.

- **Contribution to Training**: there must be a student training component that is relevant to the field.

- **Benefit to Canada**: identify any additional economic, social, and environmental benefits to Canada.
Industrial Partner Eligibility

- Economic benefit to Canada
- Able to further develop and exploit research results
- Derives the majority of its revenues from the sale of products/services and not from government aid or the tax base

Eligible:

- Canadian based companies
- Multinationals – if R&D/Manufacturing in Canada
- Industrial Associations – active involvement
- Public utilities
- Foreign companies – only if major Canadian partner present
Partners that are not Eligible or Not Sufficient

- Validation sites
- Holding companies
- Government departments, labs, agencies
- Researcher owned companies or those companies where the researcher has a decision making role

If there is any doubt at all, contact NSERC to confirm eligibility of an industry partner before investing significant time in discussions and preparation of an application
CRD Peer Review Process

• All applications are peer-reviewed
• Be aware that it can take 3 – 6 months for decision
• Staff will review draft proposals and assign manager
• Feedback from reviewers can strengthen proposed research
• May be asked for clarification
• In most cases applicants able to revise and resubmit successfully
Peer Review Feedback → Negative Decision

- Lack of detail in proposed methodology
- Questionable scientific merit: poor originality, technical issues, not research
- Lack of benefit to Canada
- Missing expertise
- Poor training opportunities
- Poorly situated within state of the art
- In-kind not essential to project, over estimated, poorly described
- Budget items poorly justified, too high
- Schedule, scope too ambitious
Grantsmanship

Developing a Successful Proposal

Goal: To ensure that any question a reviewer might have, has already been addressed
Form 101 Part I

- Hours/month to be devoted to the project.

- **Activity schedule:** List/detail the tasks required to achieve the objectives for each year. Link to HQP and partner’s contributions. *Should not include literature review or admin tasks.*

- **Budget and Justification:** Detail (no page limit!) can help reviewers understand your priorities and focus, especially through the plan for HQP. Ensure all expenses and human resources, especially those that are unusual, are well-justified. Include quotations where required.

- **Contributions from Supporting Organizations:** Opportunity to demonstrate and detail commitment and engagement of partners to project. Ensure contributions are eligible and well-justified. Cash contribution to the direct cost of the research should **exclude** overhead.

- **Relationship to other Support:** Sufficient detail on how this project is different and/or aligns with similar research.
Form 101 Part II- Proposal (10 pages)

- **Synopsis**: Serves as an introduction to the proposal and is sometimes sent by staff to potential reviewers. Half a page is sufficient.

- **Background**: Must relate the proposed project to current scientific, technical, and commercial developments in the field. Include critical references and *not just your own work*. Presentation of preliminary data always strengthens an application (2-3 pages).

- **Detailed Proposal**: Most important part of the application – this is where the reviewers will be looking to assess the scientific merit and feasibility of the project. Do not repeat information.
Detailed Proposal (5-7 pages):

• Each objective should be clearly identified and the workplan well-described. Link the objectives, workplan and activity schedule together.

• The research methodology and experimental design must be described, including plans for statistical analysis. The research challenges must be clearly identified.

• Ensure that the roles of students, PDFs and other resources are described within the context of the proposed work and linked to the above items – do not repeat info already in the budget justification.

• Identify the technical risk or uncertainty and discuss how it will be managed. If you don’t, the reviewers will raise questions.
Team Expertise:

• Make sure the team includes all the expertise needed to carry out the project.

• Include expertise of collaborators, plus company personnel, technical staff and post-doctoral fellows, *if relevant*.

• If a particular expertise is missing, or if the area is somewhat new to the team, *make sure to address how this will be overcome*.

• Include the collaborator’s CV if his/her expertise is essential for the project to succeed.

Research Management:

• This section is particularly important for large, complex and/or multidisciplinary projects.
Training Component:

- **Consider using the budget justification as a place to provide some of this information**

  - Training includes PDFs, graduate and undergraduate students (particularly in the case of small universities or universities lacking a graduate program.)
  
  - Number of students to be trained should be commensurate with size of grant. If the ratio of HQP to professional staff is low, substantial justification required.

- How will trainees benefit? How will the project benefit?
- Will they interact with industry personnel?
- What are their roles and responsibilities?
Letter of Support from Company Critical

Value of Results and Industrial Relevance:

• Emphasize the industrial relevance of the results – How will the partner(s) benefit?
• Be specific regarding how the outcome will address a current or future industrial or market need.
• Include statistics if at all possible.

Benefits to Canada:

• Expectation for a CRD project is that there will be an economic benefit for Canada (not just training or royalties).
• Describe how the research will result in the industrial partner becoming more competitive, increasing profits and/or job creation (must occur in Canada).
Form 101 References and Appendix C

References:

- Not included in the 10 page limit.
- Do not refer readers to Web sites for additional information on your proposal and do not introduce hyperlinks.

Suggested Referees (Appendix C):

- Please do not include individuals with whom you collaborate or have collaborated with in the past six years.
- Do not include individuals who collaborate with one of the industry partners.
- Please include industry-based or non-academic experts who are not in conflict.
Partner’s Letter of Support:

➢ Take time to get this right - Scrutinized by Peer Review

Must include:

• Support for and agreement with the proposal;
• Reasons for being involved in the collaboration;
• Anticipated benefits from the project outcomes;
• Effort required to exploit the results in Canada;
• Benefits to the Canadian economy and the relevant time frame;
• Anticipated interaction of personnel with the university team;
• The contribution to the direct costs of the research (cash and in-kind);
• In the case of a small company, it is recommended that a company profile be included.
In-Kind Contributions

Clear and Quantifiable Justification Required for Leverage

Must be essential for success of project

- Salaries for scientific/technical staff: identify and define their role, their expertise, what they bring to the project, and their commitment (hours, rate).
- Donation of equipment/software: how will it be used and why is it important for success? How was the cost calculated?
- Donation of material: what is being provided and why is it important?
- Field work logistics: what is being provided and why is it important?
- Provision of services: what is cost of providing these services and why are they needed?
Intellectual Property Agreement

Avoid surprises - begin IP discussions while proposal under development

- Agreement must be finalized and conform to NSERC’s policy before funds released

  Flexible IP Access + Mandatory Elements:
  - Maximum benefit to Canada;
  - Protection of IP assets (including partner proprietary information);
  - Publishable results (maximum 6 month delay);
  - No delay for student’s thesis defence;
  - Researchers’ right to use the results for non-commercial purposes.
Contacts

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