



STRATEGY FOR PARTNERSHIPS AND INNOVATION



Natural Sciences and Engineering
Research Council of Canada

Conseil de recherches en sciences
naturelles et en génie du Canada

Canada 



Strategic Project Grants Program



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Canada 

Strategic Project Grants Program 2010 Competition

Research Partnerships Programs
rpp@nserc-crsng.gc.ca

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Prosperity and high quality of life for Canadians

Natural Sciences and Engineering Research Council of Canada

Vision and Mission

We invest in:



discovery ↔ **innovation**



Competitive research in science and engineering, providing access to new knowledge from around the world

people

Highly skilled, well educated and capable of lifelong learning

Productive use of new knowledge in all sectors of the economy and society

Our goal is Canadian excellence in:

CREATING KNOWLEDGE

Research Grants for basic research in the universities

WORKING IN ALL AREAS OF SCIENCE AND TECHNOLOGY

Scholarships and fellowships for undergraduate and postgraduate students, postdoctoral fellows and some university faculty

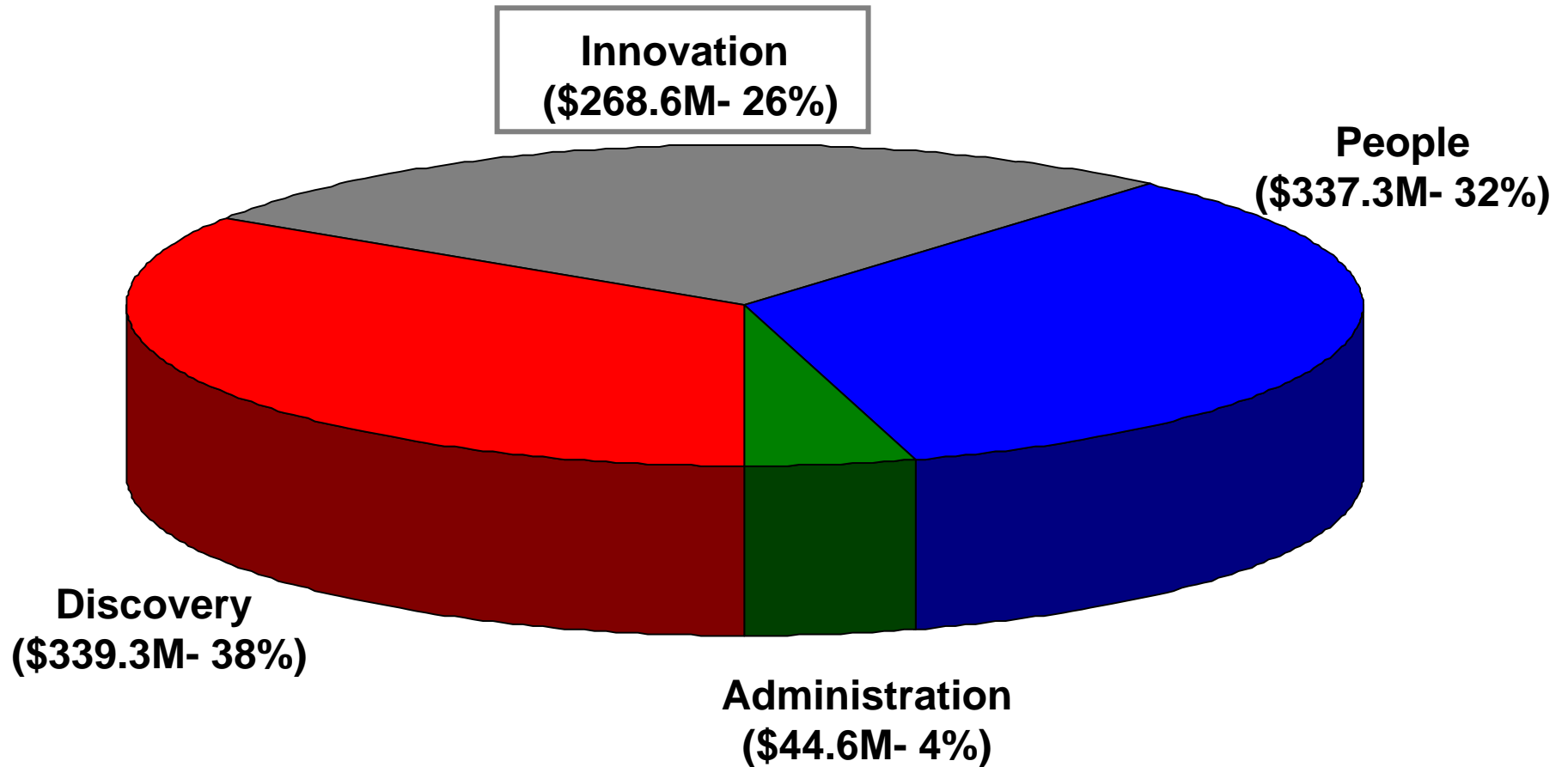
USING NEW KNOWLEDGE

Partnerships of universities with industry and other sectors for project research

We do this through peer-reviewed competitions in three programs

NSERC Budget 2009-2010

(\$1.050 billion)



RPP Toolbox

Strategic Partnerships (targets national priorities)

- Strategic Projects
- Strategic Networks
- Strategic Workshops
- Collaborative Health Research Projects

Regional Offices

- Bring perspectives and intelligence from across the country
- Forge linkages at local level
- Exercise more influence

Industry-Driven (Industry participation)

- Collaborative R&D
- Industrial Research Chairs
- Chairs in Design Engineering
- Interaction
- Engage

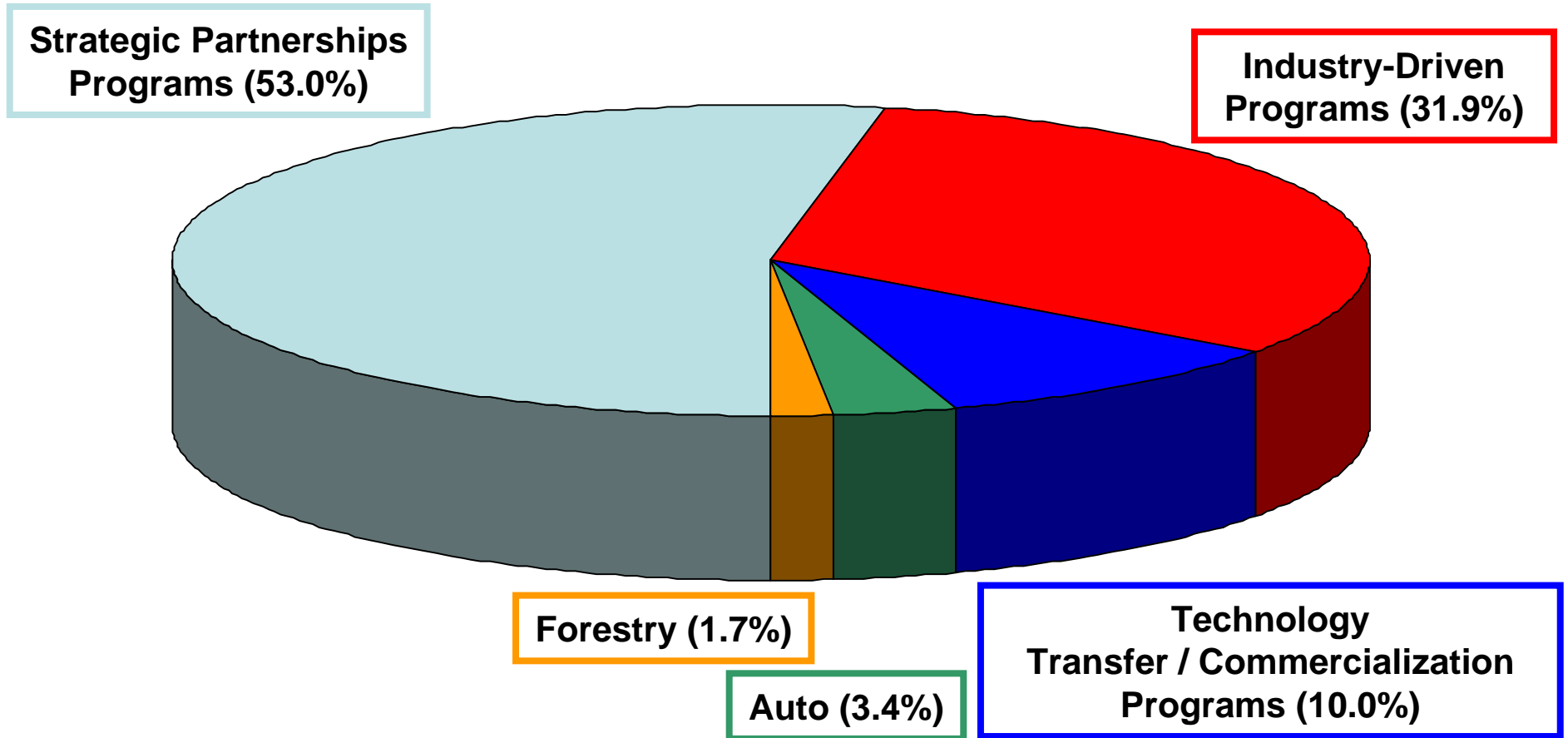
Technology Transfer/Commercialization

- Idea to Innovation
- College and Community Innovation

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2009-2010 RPP Budget (\$229.2M)



Why the Strategic Project Grants Program?

- Focus on specific areas
- Opportunity to take research beyond the university
- NSERC will fund direct costs of a 3-year project (students, post-docs, consumables, equipment)
- There must be significant involvement from the partner BUT a cash contribution is not required
- Probability of success ... 25-30% in past few years

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Competition Statistics

Competition Year	# of Applications	# of Awards	Success Rate
2009	465	122	26%
2008	352	129	37%
2007	309	149	48%
2006	431	133	31%

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Strategic Project Grants (SPG)

Objective

To increase research and training in **targeted areas** that could strongly influence Canada's economy, society and/or environment **within the next 10 years.**

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Expected Results

- New knowledge/technology with strong potential to strengthen Canada's industrial base, generate wealth, create employment and/or Canadian public policy
- Highly qualified personnel trained in the target areas
- Increased participation of companies and/or government organizations in academic research
- Transfer of knowledge/technology to Canadian-based organizations that are well positioned to apply the results for economic gain or to government organizations to strengthen public policy

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Eligibility of Applicants

Applicant and Co-applicants

- Must hold, or have a firm offer of, an academic appointment at an eligible Canadian university, for:
 - A tenured, tenure-track or life-time professor emeritus position; or
 - A term position of no less than three years
- College Faculty can be co-applicants (see NSERC Website for list of eligible colleges)
- Co-applicants outside NSE must meet NSERC eligibility requirements

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Collaborators

Members of the research team that are not eligible as applicants or co-applicants, e.g.:

- government scientists
- company staff members
- research scientists from other countries

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Co-Applicant versus Collaborator

- *Co-applicant* is eligible to hold NSERC funds and is an essential member of the team.
- *Collaborator* is *not* eligible to hold NSERC funds and should be contributing to intellectual direction of the project.
- Collaborators must be qualified to undertake research independently but bring their own funds to the project.

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Requirements

The project must:

- Fall within one of the target areas
- Have well-defined objectives, scope and duration (1-3 years.)
- Have one or more supporting organizations that is actively involved in all stages of the project and can apply the results
 - In-kind contributions are required, but cash is not

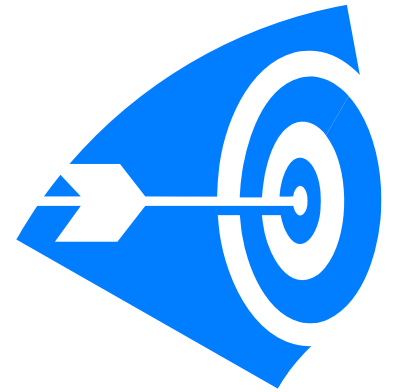
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Seven Target Areas

Priority research topics within:

- Advanced Communications and Management of Information
- Biomedical Technologies
- Competitive Manufacturing
- Healthy Environment and Ecosystems
- Quality Foods and Novel Bioproducts
- Safety and Security
- Sustainable Energy Systems



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Focused Research

- There are priority research topics identified within each target area
 - At least 80% of budget is used to fund projects in these research topics
- Projects that fall outside of the research topics but fit the context of the target area are termed “Exceptional Opportunities outside the research topics”
 - up to 20% of budget can be used to fund these projects
- Research outside the 7 priority target areas will **not** be considered for funding

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Non-Academic Supporting Organizations

Private sector

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

Public sector

- Canadian government organizations that can apply the research results to strengthen policies (the proposal must clearly show how the project relates to their public policy responsibilities)

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Non-Academic Supporting Organizations

Do not qualify as sole supporting organizations:

- NGO's, venture capitalists, government research labs, foreign research institutions, implementation sites, potential customers, hospitals and clinics

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Supporting Organizations (continued)

A supporting organization must also:

- Have a demonstrated interest in the project (letters of support, in-kind contributions)
- Be involved in all stages of the research (help to develop the proposal, interact with researchers and students, provide input to the project)
- Validate the results of the research
- Provide guidance concerning exploitation of results

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The SPG Application

- Application for a Grant (Form 101) Parts I and II
- Personal Data Forms (Form 100) + CVs of collaborators
- Form 183A (partner's information & contributions)
- Letter of support describing partner's involvement (see instructions for specific items to be addressed)

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The SPG Application (continued)

Applicants **must**:

- Select a target area and research topic from the list provided
- Clearly explain in Proposal module (under ‘Introduction’):
 - (1) why the proposed research is strategic; and
 - (2) how it addresses the research topic selected
- Provide a compelling case for consideration if the research falls outside the research topics but within the target area listed (“Exceptional Opportunity outside the Research Topics”)

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Research Proposal- Format

- **11 pages total:**
 - **Introduction** (1 page) – why is the research you propose strategic? Fit to target area
 - **Section 1** (7 pages) – objectives, approach, workplan, roles of team members
 - **Section 2** (1 page) – training plan
 - **Section 3** (1 page) – interactions with supporting organizations, intellectual property
 - **Section 4** (1 page) – benefits to Canada
- **Additional pages** – references (1 page), status report, relationship to other research

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Letter of Support- Key Points

- Support for and agreement with the proposal
- Reasons for being involved in the proposed collaboration
- Anticipated benefits from project outcomes
- Effort required to exploit results
- Benefits to Canadian economy and the relevant timeframe
- Anticipated interaction of personnel with the University
- Company's contribution to the project
- Company profile (for small companies or start-ups)

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Additional Points to Consider

- Collaborations outside NSE: applicants are encouraged to collaborate with experts outside the natural science and engineering, where appropriate. Can represent up to 30% of the project costs.
- Overlap of funds: the onus is on the applicant to provide as much information as to how/why the project differs from those currently funded
- Provide as much details as possible in your budget justification. Show all your calculations and how you arrived at totals presented. Reviewers do not take kindly to spending hours trying to figure out how figures were obtained.

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Evaluation Process- Timeline

- **April 15- Submission of Applications**
- **May/June- Pre-Selection, if required**
 - Preliminary review by target area selection committee
 - Proposals with significant weaknesses are removed
- **July/August- External referees**
 - Typically three per application
 - Technical expertise to aid the Committee
 - Appendix C: your suggestions
 - Panel suggestions and NSERC database
- **September- Internal Selection Committee**
 - Proposals are assigned to three internal reviewers
 - Discussion amongst the whole group
- **October- Results announced**

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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

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Evaluation Process

- Projects are evaluated against seven criteria
- Each criterion is graded from 1 (lowest score) to 4 (highest score). For details, see: <http://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/instructions/101/e.asp?prog=spg>
- Each criterion is of **equal** weight
- Only projects that are strong in **all 7 criteria** are eligible for funding

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Selection Criteria

Originality of Research

The project must promise to generate new knowledge or to apply existing knowledge in an innovative manner.

- Novelty
- How the research relates to current state of knowledge
- Potential for developing new knowledge, products or processes
- Extent to which research will impact the field
- Potential for major scientific breakthrough

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Selection Criteria (continued)

Quality of Research

The project must be scientifically sound and technically feasible. It must fall within a specific target area.

- Focus and clarity of short- and long-term objectives
- Appropriate methodology
- Justification for approach based on existing knowledge
- Feasibility of research planned
- Does the research fit the Strategic Projects target areas?

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Selection Criteria (continued)

Project Work Plan

The project must have a clear and coherent work plan that demonstrates a high probability of achieving the objectives in the proposed time frame.

- Clarity of project description
- Coherence of deliverables in work plan
- Probability of success within proposed time frame
- Availability of necessary equipment
- Roles and time commitment of research co-applicants (collaborative roles)
- Collaboration and communication plans
- Justification and need for funds
- Demonstrated management plan

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Selection Criteria (continued)

Quality of the Applicants as Researchers

The research team must have all the expertise to address the defined objectives competently and to complete the project successfully.

- Does the team (including company researchers, if applicable) have all the required expertise?
- Form 100 very important
- Recognition of researchers' achievements and contributions
- Appropriateness of skill sets of individual researchers in the proposed areas
- Roles and time commitment of research co-applicants (collaborative roles)

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Selection Criteria (continued)

Training Potential

The project must provide opportunities to train students and other highly qualified personnel with skills relevant to the needs of Canadian organizations.

- Who will do the work? Graduate, undergrads and co-op students; technicians, post-docs and research associates
- Is the training relevant to the needs of Canadian organizations?
- Will the HQP have the opportunity to work in the non-academic partner's facility?
- Workshops and training of industrial personnel at the applicant's lab
- Track record of applicants in training HQP
- Suitability of the training environment

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Selection Criteria (continued)

Interactions with Supporting Organizations

The supporting organizations must have the capacity to apply the results of the research and must be actively involved in all stages of the project.

- Is the supporting organization an appropriate partner?
- Do the project objectives fit with the priorities of the non-academic partner?
Remember that the partner organization will have to prepare a progress report midway through the project!
- How will the technology be transferred?
- Is the non-academic partner able to assimilate new technology?
- What is the degree of involvement of the non-academic partner in developing the proposal and throughout the project?
- What kind of a track record do the applicants have in transferring technologies?

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Selection Criteria (continued)

Benefits to Canada and Supporting Organizations

The proposal must identify how the work will benefit the supporting organization and must demonstrate that exploitation of the research results will benefit Canada within a 10-year time frame.

- Delineate probable socio/economic/health benefits in a quantitative way...far more convincing!
- Is there a potential benefit in creating significant public policy as a result of the research?
- Is there potential to increase the numbers and/or quality of personnel working in an area of strategic importance?

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Signs of a Good Proposal

- **All sections are clear and well described:**
 - Clear summary, proposal easy to read
 - Roles well defined (students, applicants ...)
 - Benefits to Canada clearly demonstrated
 - Guidelines followed & requirements addressed
- **Strong partner(s):**
 - Involvement from the start
 - Clear expectations (including IP)
 - Good communication
 - On-going interaction

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Reporting

Progress Report

- Halfway through the project, all grantees must submit a progress report and supporting organizations will be asked for their feedback.
- The Selection Panels will review these reports and NSERC will pay the final instalment of the grant only if satisfactory progress and collaboration with the supporting organizations has been demonstrated.

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Reporting

Final Report

- Three months after the project end date, all grantees must submit a final report on the project's achievements with respect to its objectives.
- Each supporting organization in the project will be asked to evaluate the project.

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What's New for 2010

- **New Policy on Intellectual Property**

- As of December 1st 2009, all Research Agreements must comply with NSERC's new Policy and address the five mandatory elements
- For SPG, an IP Agreement is required if there is potential for disclosure of IP

- **Project Management Costs**

- Costs for project management salary, training or software will now be eligible. The level of funding will be up to 10% of the total cash contributions to the project, from **all** sources

- **Last competition with current Target Areas**

- Target areas are reviewed every 5 years

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Conclusion

- Strategic grants fund projects, not programs
- Provides opportunity for university researchers to carry out innovative science and engineering work with potential for commercialization
- Provides opportunity to introduce students to potential employers and for non-academic partners to access scientific expertise and specialized research equipment

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Top Ten Tips

1. Start early!
2. Take full advantage of the Research Office and NSERC staff. Their advice is invaluable
3. Make the application comprehensible to people outside your field and position your project within the current literature/state of the art - Literature review should not be Task 1 of project!
4. Pay full attention to all aspects of the application, not just the proposal
5. Make sure the partner is going to benefit actively from the research, not just be an end user

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Top Ten Tips (continued)

6. Explain the fit to the target area clearly
7. Ensure that all partners and co-applicants are fully involved
8. Understand how your proposal will be evaluated
9. Tailor your Form 100 to the Program you are applying to
10. Explain both the applied and basic aspects of the project

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Resources

For questions relating to fit to target area, eligibility of partners or applicants or Program requirements, please send your query to:

STRGR@nserc-crsng.gc.ca

For questions/support regarding the on-line application process, please contact:

Helpdesk: (613) 995-4273

webapp@nserc-crsng.gc.ca

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Useful Links

- **NSERC** web site: www.nserc-crsng.gc.ca
- SPG Program description: http://www.nserc-crsng.gc.ca/Professors-Professeurs/RPP-PP/SPG-SPS_eng.asp
- Instructions:
 - Form 101: <http://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/instructions/101/e.asp?prog=spg>
 - Form 100: <http://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/instructions/100/e.asp>
 - Form 183A: <http://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/instructions/183A/e.asp>

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Useful Links

- Use of grant funds: http://www.nserc-crsng.gc.ca/Professors-Professeurs/FinancialAdminGuide-GuideAdminFinancier/FundsUse-UtilisationSubventions_eng.asp
- Guidelines for partners: http://www.nserc-crsng.gc.ca/NSERC-CRSNG/Policies-Politiques/orgpartners-orgpartenaires_eng.asp
- IP Policy: http://www.nserc-crsng.gc.ca/NSERC-CRSNG/Policies-Politiques/ip-pi_eng.asp
- International Collaborations: http://www.nserc-crsng.gc.ca/Professors-Professeurs/RPP-PP/NSERCANR-CRSGANR_eng.asp

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