# *Application for NSERC Grants*

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Information on the application procedures for the New Funding Opportunities - CIHR and Genomics can be found on our Web site. Follow the link under www.nserc.ca/programs/cihr_newfund_e.htm for the following programs:

- Getting Ready for CIHR: A Tri-Council Workshop/Networking Program;
- Collaborative Health Research Projects; and
- Genomics Projects.

# A. General Instructions (Forms 100 and 101)

## General instructions for all applicants

Use Forms 100 and 101 if you are submitting an application to the grant programs listed in the Table of Contents.

**Also...**

- Use these forms in conjunction with the NSERC *Researchers' Guide* . Before you complete the form, see the relevant sections of the guide for information about eligibility criteria, selection criteria, and application deadlines.
- An electronic version of Forms 100 and 101 is available on NSERC's Web site, www.nserc.ca.
- If you are applying for more than one type of support, complete a separate application for each.

## General Presentation

When you prepare your application and supporting materials, follow these guidelines:

- Print must be in black ink and of letter quality.
- Text must be single-spaced, with no more than six lines per inch.
- If you use a type size measured in pts, it must be no smaller than 12 pts.
- If you use a type size measured in cpi, it must be no more than 10 cpi.
- The electronic forms are automatically formatted to meet these standards and the typesize cannot be changed.

**For Part II of the forms (which is free form):**

- Use white paper, 8 1/2 x 11 inches (21.5 cm x 28 cm), portrait format, with a single column, unless specified otherwise.
- Set margins at 3/4 of an inch (1.7 cm) (minimum) all around.
- Enter your name and PIN at the top of every page, within the set margins.
- Number consecutively following the last page of Part I.
- Print on one side of the page only.
- The maximum number of pages allowed is indicated in the instructions for the appropriate program. Pages in excess of the number permitted will be removed.

**Note**
All text, including references, must conform to these standards. Incomplete applications and/or applications that do not meet the presentation standards may be rejected or be at a disadvantage in comparison with those that are complete and respect the presentation standards.

### What do the signatures on the application mean?

One copy of the grant application must bear the original signatures of the applicant and co-applicant(s), of the department head and university president (or their representatives). If you are both the applicant and the university president or representative, another senior official must sign the application on behalf of the institution. The university may also require a signature from your faculty.

Your signature means that you:

- agree to abide by NSERC regulations governing awards as outlined in the *Researchers' Guide;*
- will use the grant only for the purpose for which it is awarded;
- agree to abide by regulations regarding animal care, ethical considerations in the use of human subjects in research, and biohazards;
- understand the *Access to Information* and *Privacy Acts* (Appendix 2 of the *Researchers' Guide* ) as they pertain to grant application information;

- have read and agree to comply with the integrity policy (Appendix 3 of the *Researchers' Guide* ), and authorize the university, if need be, to release to NSERC personal information that is relevant to your NSERC application and award;
- will acknowledge, wherever possible, NSERC's funding assistance for the research; and
- will only purchase or develop equipment or software that is Year 2000 compliant.

The signatures of the co-applicants mean that they:

- also agree to the above; and
- agree that you (the applicant) will administer the grant on behalf of the group.

The signatures of the university authorities certify that:

- you have met the eligibility requirements in section 1.1 of the *Researchers' Guide;*
- the university will provide you with the space and basic facilities to carry out the research;
- the university agrees to comply with NSERC's data protection requirements and has adequate safeguards in place to protect sensitive information entrusted to it by NSERC for the purpose of administering applications and awards;
- the university will administer your NSERC funds on your behalf according to the provisions of the *Researchers' Guide;*
- the university will release funds to you once all necessary certification requirements have been met;
- the university will notify NSERC of any change in your status during tenure of your grant; and
- the university has a plan to address the potential impact of the "Year 2000 Issue" and NSERC shall have no liability should the plan prove to be inadequate or deficient.

The signatures of authorized officers of other supporting organizations certify that:

- the organization agrees with the content of the application and will provide the committed resources; and
- the organization agrees to the release of the public summary of the award and to the publication of the organization's name as a supporter of the initiative.

If you are both the applicant and a principal of a collaborating company, another senior official must sign on behalf of the company.

## Code Book

Consult the NSERC *Code Book* for code tables.

## Collection and Use of Personal Information

The information you provide in your application is collected under the authority of the *Natural Sciences and Engineering Research Council Act* .

The information is stored in a series of NSERC data banks described in *Info Source*. Details on the use of this information are provided in Appendix 2 of the *Researchers' Guide* .

## Mailing Address

Send your correspondence to:

NSERC
350 Albert Street
Ottawa, Ontario K1A 1H5
Canada

# B. Completing Form 100 (Personal Data Form) Step-by-step instructions

All applicants and co-applicants for NSERC grants must complete Form 100 (Parts I and II and the required appendices). Submit one copy of Parts I and II and Appendix C (if required) with each copy of the application. Submit one original only of Appendices A and B.

**Note**
Co-applicants who do not hold an academic appointment at a Canadian university must submit Appendix A.

## PART I

In this part of the form (pages included), you must provide details about:

- personal data;
- academic background;
- academic, research and industrial experience;
- information on highly qualified personnel; and
- sources of research support.

### Name

If you have changed your name since you last applied for support from NSERC, enter your previous name in parentheses in the appropriate area on Form 100 (for paper version – beside your family name on page 1 of Form 100).

### Personal Identification Number (PIN)

All NSERC applicants have been, or will be, given a PIN. Once you have your PIN, use it each time you apply for a grant and in future correspondence with NSERC. If you have not yet been issued a PIN, or if you don't know your PIN, leave this space blank.

### Academic Appointment

If you have not taken up your position at the time of application, indicate in this section the university where you have been offered a position or where you will hold the grant.

## PART II

This part of the application is "free form" and should be printed on regular white paper. Using the headings below and a maximum of five single-sided pages, describe your contributions to research, industrial R&D and highly qualified personnel training**over the last six years**, i.e., last six years from the deadline

date for the submission of the application (for example, 1999 deadline means 1993 inclusively, 2000 deadline means 1994 inclusively), (**non-university contributions over the last 10 years**). Consult Appendix 5 of the *Researchers' Guide* for information on the assessment of contributions.

**1. Most Significant Contributions to Research and/or to Practical Applications**

List your five most significant contributions. For each, describe the significance in terms of influence on the direction of thought and activity in the target community and in terms of significance to, and use by, other researchers and end users. For collaborative contributions, describe your role.

**2. Other Research Contributions**

List other research contributions. Begin with your most recent, and start each entry on a new line.

Use the following order:

- Articles in refereed publications:
  - published or accepted;
  - submitted.
- Other refereed contributions. These may include:
  - letters, notes, communications;
  - review articles;
  - papers in refereed conference proceedings (include the title, date, and sponsoring society of the conference);
  - monographs, books or book chapters; and
  - government publications.
- Non-refereed contributions. These may include:
  - papers or letters;
  - papers in conference proceedings;
  - review articles;
  - specialized publications, technical reports, internal reports, discussions, abstracts, symposium records;
  - monographs, books or book chapters;
  - conference presentations;
  - all other publications, including those from research that you supervised, e.g., theses; and
  - government publications.
- Contributions to industrially relevant research and development. These may include:
  - R&D activities at your primary place of employment (non-university or part-time university participants);
  - Technology or product development;
  - Technology transfer and commercialization, including spin-off companies;
  - Participation in industrially relevant R&D activities;
  - Patents and copyrights (e.g., software, but excluding publications): for each, provide the following information:
    - date and country or countries of issue;
    - name(s) of joint inventor(s);
    - title and brief description;
    - patent/copyright number.

  For published contributions, list the full authorship as it appears in the original publication, year, title, name and volume of the publication, and the first and last page numbers. For publications in press, indicate the date of acceptance.

  Provide details, as appropriate, on the contributions you listed. Such details may include, for example:
  - a list of collaborators and their institutions;
  - the nature of collaborations with other researchers;
  - contributions to joint publications;
  - the reason for selecting certain journals for publications, particular features of the journals, e.g., target audiences, review procedures;

- the impact or potential impact of patents and technology transfer;
- the nature of industrially relevant R&D activities;
- the significance of technical reports;
- original research reported in books or technical reports.

### 3. Contributions to the Training of Highly Qualified Personnel

Describe contributions you have made to training. Begin with your most recent contributions. For each individual, specify the name, years supervised, degree completed or in progress (if applicable), title of research project, and present position. Provide information in a table format (respect type size and use portrait format).

Use the following order:

- students for whom you are/were principal supervisor;
- students you co-supervise(d) (explain your role);
- postdoctoral fellows you supervise(d);
- technicians and other research or R&D personnel you supervise(d).

If you have not recently contributed to training, explain why.

**EXAMPLE 1:**

In this example, a major heading for degree and supervision is listed once and not repeated for each individual.

**Undergraduate Students – Principal Supervisor**

**Name, Yrs. supervised**

Smith, J. 1995-96

**Title of project**

Membrane characteristics of ...

**Present position**

M.Sc. student, Guelph

**EXAMPLE 2:**

In this example, the information provided for each person can take up two lines, allowing for more text under "Title of project" and "Present position."

**Name, years, degree**

Reid, M. 94-97, Ph.D. (co-supervisor)

**Title of project**

Isotope Geochemistry in Petroleum Engineering

**Present position**

VP Research, Earth Consultants,
Edmonton (oil exploration)

### 4. Other Evidence of Impact and Contributions

List other activities that may show the impact of your work. These may include:

- relevance of work to engineering practice or industrial processes (e.g., methods and standards);
- awards;
- prestigious invited lectures;
- research fellowships;
- journal editorships;
- membership on committees, boards, or policy-making bodies;
- consulting activities;
- public awareness/education; and
- any other activities or information that will help committees to evaluate your contributions to and impact on science and engineering.

### 5. Delays in Research Activity

This section is to be used to explain and give dates for any significant delays in your research activity or in disseminating research results (e.g., parental leave, bereavement, single parent situations, illness, extraordinary administrative duties or other circumstances). Consult Appendix 5 of the *Researchers' Guide* .

## Appendix A – Personal Data

**(send one original only – do not include photocopies of this appendix with copies of the application)**

Complete Appendix A:

(i) if you are an applicant or co-applicant applying for the first time,

(ii) if you need to update information submitted with a previous application, or

(iii) if you do not hold an academic appointment at a Canadian university.

For updates, include only the revised information, in addition to the date, your name and your PIN.

**Position and complete mailing address/or temporary mailing address**

Complete this section:

(i) if your primary place of employment is not with a Canadian university, e.g., industry, government, non-Canadian university, etc., or

(ii) if you are a Canadian university researcher on sabbatical leave. Enter your temporary address here as well as start and end dates for your sabbatical leave.

**Codes**

Consult NSERC's *Code Book* in the application kit or on the NSERC Web site.

## Appendix B – Eligibility Questionnaire

**(send one original only – do not include photocopies of this appendix with copies of the application)**

Complete Appendix B if you are an applicant or co-applicant who does not hold a tenured, tenure-track or life-time professor emeritus position at a Canadian university at the time of application.

The information you provide must be for the position you will hold at the time the grant is awarded. If you are not currently in that position, you must have a written offer. You may append any relevant information. Consult the *Researchers' Guide* for eligibility criteria (sections 1.1A and 1.1B).

## Appendix C – Description of Applicants' Activities

**(send a copy of this appendix with each copy of the application)**

Complete Appendix C:

(i) if you hold an academic appointment at a Canadian university but are not a full, an associate or an assistant professor; or

(ii) if you hold a part-time academic appointment at a Canadian university.

This would include applicants or co-applicants holding an adjunct professor or a professor emeritus position.

Appendix C must be signed by the employer at your main place of employment. If you do not hold a position outside the university, your department head must sign Appendix C.

# C. Completing Form 101 (Application for a Grant) Step-by-step instructions

## C.1 Research Grants (individual, group and project) (RG)

Applicants must complete Form 101 (Parts I and II and required appendices). For deadlines and other information consult the *Researchers' Guide.*

## PART I

### Page 1

**Type of grant**

Enter "Research Grants" in this box and indicate if your application is an individual, a group or a project grant application.

**Title of proposal**

The title will be used for publication purposes. It should describe the subject of the research to be supported. Spell out scientific symbols and acronyms.

- For Subatomic Physics (SAP) project research grants, indicate the experiment number in the title.

**Codes**

Consult the NSERC *Code Book* for code tables.

### Page 2

**Co-applicants**

For applications from groups, list each co-applicant's name, personal identification number, and organization, as well as the time (in hours per month) each will devote to the proposed research.

Co-applicants, except those from the applicant's university, must obtain their organization's signature agreeing to their participation.

### Page 3

**Summary of proposal for public release**

The summary is intended to explain the proposal in a language that the public can understand.

Using simple terms, briefly describe the nature of the work to be done. Indicate why and to whom the research is important, the anticipated outcomes, and how your field and Canada will benefit. Applicants may also provide a summary in the second official language on an additional page.

## Page 4

**Proposed expenditures for the direct costs of research**

Consult chapter 3 of the *Researchers' Guide* regarding eligibility of expenditures for the direct costs of research and regulations governing the use of grant funds. Use additional page(s) to explain and justify each budget item.

On page 4, provide a four-year budget. If your request is for a different duration, explain why.

- For Subatomic Physics (SAP) Project Research Grants:
  - use Year 1 on the budget pages to correspond to the previous fiscal year, Year 2 to the current fiscal year, and Years 3, 4, and 5 to the next three fiscal years. Indicate in the grey box on top of the page the year in question.

***Salaries and benefits***

Give the names (if known), categories of employment and proposed salaries (including non-discretionary benefits) of students, postdoctoral fellows, assistants, etc. Briefly describe the responsibilities for each position for which support is requested.

***Equipment or facility***

Give a breakdown of the items requested, models, manufacturers, prices, and applicable taxes. Justify each item requested. Items costing more than $7,000 should be requested separately in an equipment grant application.

Fees to be paid for the use of equipment or a facility should be described (e.g. hours and rate). Also report the need for beam time or other special facilities, and if time has been allocated for these.

***Materials and supplies***

Provide details; explain major items.

***Travel***

Explain briefly how each activity relates to the proposed research.

***Dissemination costs***

Provide details of publication costs, user workshops or other activities.

***Other expenses***

List all items not relevant to previous categories and provide a brief explanation for major items.

***Relationship to other research support***

See Appendix 1 of the *Researchers' Guide* for additional information.

There must be no duplication of funding for the same research. However, when research programs are supported by multiple sources, the additional benefits of NSERC support must be well explained and justified.

The following information should be provided by adding pages as indicated on page 4 of Form 101:

- Applicants **must** provide clear and concise information on the conceptual and budgetary relationship or difference between this application and **all other support (currently held or applied for)**. They must also explain perceived duplication in funding or, if applicable, indicate how the NSERC application complements research funded by other sources.
- For each grant currently held or applied for, applicants must clearly describe the main objective, and provide a brief outline of the methodology, budget details, and details on the support of highly qualified personnel. In addition, the relationships to the NSERC application must be explained. Such information may be provided, for example, in the form of a brief summary of the necessary details for each grant.

The onus is on the applicant to provide sufficient information to enable a review committee to evaluate the relationship with other sources of support and to recommend the appropriate NSERC funding level. The consequence of not providing adequate information to assess the relationship to other research support is that the selection committee can recommend reduced or no funding.

## PART II

This part of the application is "free form" and should be printed single-sided on regular white paper, as described in the General Presentation standards on page 2.

Follow the instructions and address the selection criteria for the Research Grants program (consult the NSERC *Researchers' Guide* ). Using the headings below and in a maximum of 5 (8 for group applications) single-sided pages, describe the research to be supported. Provide details on:

- your recent progress in research activities related to the proposal;
- the objectives: both short and long term;
- literature pertinent to the proposal;
- methods and proposed approach;
- anticipated significance of the work; and
- training to take place through the proposal (if none, explain why).

**Note**

- List of references must conform to the General Presentation standards described on page 2.
- Do **not** refer readers to Web sites for additional information on your proposal.

**In addition,**

- All applications from groups must:
  - describe the pertinent expertise and expected contributions of team members;
  - discuss collaboration among team members; and
  - provide details of the management structure and team management.
- For SAP Project Research Grants:
  - provide the name of the facility and, if applicable, the experiment number given by the facility;
  - provide a three-year projection of activities; and
  - provide details on the time to be committed to the project by personnel.

## APPENDICES

### Appendix A – Environmental Impact

Complete Appendix A for all research involving a possible impact on the environment, hazardous substances, field work, or field or marine stations.

### Other Material to Be Submitted

**Samples of Research Contributions**

Provide samples of research contributions (see page 11 for the number required by each committee) according to the instructions on page 12. The samples of contributions such as reprints, preprints and/or manuscripts, excerpts from your thesis, technical reports, etc. will be used by reviewers to assess the quality of your work. These documents should be chosen to represent your most significant recent contributions, or those most relevant to the proposed work in the last 6 years.

**In addition**

- provide a list of the research contributions provided and append it to the original of the application.

## Summary of Requirements for Samples of Contributions

| Grant Selection Committee (GSC) | | | |
|---|---|---|---|
| **GSC Number** | **Name** | **Number of Sets** | **Maximum Number of Contributions per set** |
| 03 | Plant Biology and Food Science | 6 | 4 |
| 04 | Chemical and Metallurgical Engineering | 6 | 4 |
| 06 | Civil Engineering | 6 | 4 |
| 07 | Computing and Information Sciences | 7 | 4 |
| 08 | Solid Earth Sciences | 6 | 4 |
| 09 | Environmental Earth Sciences | 6 | 4 |
| 12 | Psychology: Brain, Behaviour and Cognitive Science | 6 | 4 |
| 13 | Mechanical Engineering | 6 | 4 |
| 14 | Statistical Sciences | 7 | 4 |
| 17 | Space and Astronomy | 6 | 4 |
| 18 | Evolution and Ecology | 6 | 4 |
| 19 | Subatomic Physics | 7 | 4 |
| 20 | Industrial Engineering | 6 | 4 |
| 21 | Interdisciplinary | 10 | 4 |
| 24 | Inorganic/Organic Chemistry | 7 | 4 |
| 26 | Analytical/Physical Chemistry | 7 | 4 |
| 28 | Condensed Matter Physics | 6 | 4 |
| 29 | General Physics | 6 | 4 |
| 30 | Animal Biology | 6 | 4 |
| 31 | Animal Physiology | 6 | 4 |
| 32 | Cell Biology | 6 | 4 |
| 33 | Molecular and Developmental Genetics | 6 | 4 |
| 334 | Communications, Computers and Components Engineering | 6 | 4 |
| 335 | Electromagnetics and Electrical Systems Engineering | 6 | 4 |
| 336 | Pure and Applied Mathematics A | 7 | 4 |
| 337 | Pure and Applied Mathematics B | 7 | 4 |

**How to package your research contributions**

You should not exceed the quantities quoted. Please note that the quantities indicated also apply to group applications.

Package each set of contributions in a separate envelope marked "contributions" and clearly indicate the family name and initials, PIN, department and university of the applicant in the upper-left corner of each envelope. The material will not be forwarded to reviewers if it is not packaged properly.

## How to submit your application

When you submit your application, make sure you include all required documentation and appendices. Remember that most universities have an internal deadline date that is earlier than NSERC's deadline date. As a result, plan ahead. Make sure you allow enough time before the application deadline.

Use the following checklist to make sure your application is complete.

### Research Grants

- ❑ Form 101
  - ❑ Part I
  - ❑ Part II (max. of 5 pages {8 pages for groups})
  - ❑ Appendix A (Environmental Impact) – if required
- ❑ Form 100 (for the applicant and each co-applicant)
  - ❑ Part I
  - ❑ Part II
  - ❑ Appendix A (Personal Data) – one original only – do not photocopy
  - ❑ Appendix B (Eligibility Questionnaire) – if eligibility needs to be determined – one original only – do not photocopy
  - ❑ Appendix C (Description of Applicant's Activities) – if required
  - ❑ Samples of research contributions (refer to pages 10-12 for instructions)

**Number of copies (including original): 7**

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Incomplete applications may be rejected or may be at a disadvantage in comparison with those that are complete. Late applications or material received under separate cover will not be accepted. Consult the *Researchers' Guide* for the application deadline for this program.

**Letters of support**

Additional documents such as letters of support must not be submitted and will be removed. The exception to this rule is letters from users attesting to the nature and the significance of technical and internal reports described in your Personal Data Form (Form 100). For additional information, refer to Appendix 6 of the *Researchers' Guide* .

# C.2 Collaborative Research Opportunities (CRO)



## Completing Form 101 – Step-by-step

Applicants must complete Form 101 (Parts I and II and required appendices). For deadlines and other information consult the *Researchers' Guide* .

## PART I

### Page 1

**Title**

The title will be used for publication purposes. It should describe the subject of the proposal. Spell out scientific symbols and acronyms.

**Codes**

Consult the NSERC *Code Book* for code tables.

### Page 2

**Co-applicants**

Include all collaborators from other sectors (government or industry) or countries as co-applicants. List each co-applicant's name, personal identification number, and organization, as well as the time (in hours per month) expected to be devoted to the proposed research.

Co-applicants from Canadian universities, except those from the principal applicant's university, must obtain their organization's signature agreeing to their participation.

### Page 3

**Summary of proposal for public release**

The summary is intended to explain the proposal in language that the public can understand.

Using simple terms, briefly describe the nature of the work to be done. Indicate why and to whom the research is important, the anticipated outcomes, and how your field and Canada will benefit. Applicants may also provide a summary in the second official language on an additional page.

**Research activity schedule**

List the activities/steps required to achieve the objectives for each year of the grant. Indicate the start and end dates for the activities leading to the milestones as well as the major results expected.

## Page 4

**Proposed expenditures for the direct costs of research**

Consult chapter 3 of the *Researchers' Guide* regarding eligibility of expenditures for the direct costs of research and regulations governing the use of grant funds. Use additional page(s) to explain and justify each budget item.

***Salaries and benefits***

Give the names (if known), categories of employment and proposed salaries including non-discretionary benefits of students, postdoctoral fellows, assistants, etc. Briefly describe the responsibilities for each position for which support is requested.

***Equipment or facility***

Give a breakdown of the items requested, models, manufacturers, prices, and applicable taxes. Justify the need and urgency for each piece of equipment requested in terms of the research described in Part II of the proposal. Provide two recent quotations for items or systems costing more than $25,000.

Fees to be paid for the use of equipment or a facility should be described.

***Materials and supplies***

Provide details: explain major items.

***Travel***

Explain briefly how each activity relates to the proposed research.

***Dissemination costs***

Provide details of publication costs, user workshops or other activities.

***Other expenses***

List all items not relevant to previous categories and provide a brief explanation for major items.

Report the need for ship time (append form 128) and the amount requested. Form 128 is available from NSERC's Web site only, www.nserc.ca.

***Relationship to other research support***

Applicants must provide clear and concise information on the conceptual and budgetary relationship or difference between this application and **all other support (currently held or applied for)**. They must also explain perceived duplication in funding, or if applicable, indicate how the NSERC application complements research funded by other sources.

The onus is on the applicant to provide sufficient information to enable a review committee to evaluate the relationship with other sources of support and to recommend the appropriate NSERC funding level. The consequence of not providing adequate information to assess the relationship to other research support is that the selection committee can recommend reduced or no funding.

## Page 5

***Contributions from supporting organizations***

If appropriate, use page 5 of the budget to indicate the contributions from industry, university and other sources to the research project. Only include those contributions directly related to the budget described on page 4. Provide an explanation of the cash and in-kind contributions; use an additional page if necessary.

Foreign or other collaborators bringing their own resources to their portion of the research project should describe these in a letter of support. Refer to the instructions below for details on the submission of letters of support.

Transfer the total amount of the **Cash Contributions to Direct Costs of Research** from industry and other sources to the appropriate line on page 4.

# PART II

This part of the application is "free form" and should be printed single-sided on regular white paper, as described in the General Presentation standards on page 2.

Follow the instructions and address the selection criteria for the Collaborative Research Opportunities (consult the *Researchers' Guide* ). Using the headings below and in a maximum of 15 single-sided pages, describe the:

- significance of the special research opportunity, and anticipated significance of the work;
- recent progress for research activities related to the proposal;
- objectives: both within the timeframe of this project and for the long term;
- literature review pertinent to the proposal;
- methods and proposed approach;
- pertinent expertise, and the role and expected contributions to the research project of all co-applicants. In the case of co-applicants from other sectors (government or industry) or other countries, this should be addressed in a letter of support;
- collaboration among team members;
- leadership and management of the group.
- training aspect of the proposal (if none, explain why); and
- need for CRO support.

If applicable, discuss plans for the protection, and disposition of intellectual property; include a copy of any research or intellectual property agreement that exists between the participating organizations.

**Note:**

- Your list of references must conform to the General Presentation standards described on page 2.
- Do not refer readers to Web sites for additional information on your proposal.

# APPENDICES

## Appendix A – Environmental Impact

Complete Appendix A for all research involving a possible impact on the environment, hazardous substances, field work, or field or marine stations.

## Material Required From Supporting Organizations (Form 120)

**Letters of Support**

Provide a letter from the appropriate representative of each participating or supporting organization (e.g., a co-applicant or the person responsible for the organization's participation or support of the project), on letterhead, that indicates:

- the organization's intended participation/support in the collaborative activities and its agreement with the proposal;
- the nature and extent of the interaction/collaboration;
- the support/resources committed
- the organization's reasons for its involvement in the joint undertaking;
- how the organization expects to benefit.

# How to submit your application

When you submit your application, make sure you include all required documentation and appendices. Remember that most universities have an internal deadline date that is earlier than NSERC's deadline date. As a result, plan ahead. Make sure you allow enough time before the application deadline.

Use the following checklist to make sure your application is complete.

## Collaborative Research Opportunities

- ❑ Form 101
  - ❑ Part I
  - ❑ Part II (maximum of 15 pages)
  - ❑ Appendix A (Environmental Impact) – if required
- ❑ Form 100
  - ❑ Parts I (for all members of the group)
  - ❑ Part II (for all members of the group)
  - ❑ Appendix A (Personal Data) – one original only – do not photocopy
  - ❑ Appendix B (Eligibility Questionnaire) – if eligibility needs to be determined – one original only – do not photocopy
  - ❑ Appendix C (Description of Applicant's Activities) – if required

  **Note: Appendices B & C are not required for co-applicants from other sectors (government/industry) or other countries**
- ❑ Form 128 (Ship Time) – if applicable
- ❑ Quotes for Equipment – if applicable

**Number of copies (including original): 10**

Incomplete applications may be rejected or may be at a disadvantage in comparison with those that are complete. Late applications or material received under separate cover will not be accepted. Consult the *Researchers' Guide* for the application deadline for this program.

# C.3 Strategic Project Grants (SPG)



The Strategic Project grants program is undergoing an evaluation, and may result in changes to the program for the 2000-01 competition. The community will be informed of any changes to the program; before beginning the application process, consult NSERC's Web site to obtain the latest program information.

## Completing Form 101 – Step-by-step

Applicants must complete Form 101 (Parts I and II and required appendices). For deadlines and other information consult the *Researchers' Guide.*

## PART I

### Page 1

**Type of grant**

Indicate which Research Area (the selected research areas are described in Appendix 7 of the *Researchers' Guide*), if applicable, the proposal addresses; select one only.

**Title of proposal**

The title will be used for publication purposes. It should describe the subject of the proposal. Spell out scientific symbols and acronyms.

**Codes**

Consult the NSERC *Code Book* for code tables.

### Page 2

**Co-applicants**

For applications from groups, list each co-applicant's name, personal identification number, and organization, as well as the time (in hours per month) each will devote to the proposed research.

Co-applicants, except those from the applicant's university, must obtain their organization's signature agreeing to their participation.

### Page 3

**Summary of proposal for public release**

The summary is intended to explain the proposal in language that the public can understand.

Using simple terms, briefly describe the nature of the work to be done. Indicate why and to whom the research is important, the anticipated outcomes, and how your field and Canada will benefit. Applicants may also provide a summary in the second official language on an additional page.

**Research activity schedule**

List the tasks required to achieve the objectives for each year of the grant. Indicate the start and end dates for the activities leading to the milestones as well as the major results expected.

## Page 4

**Proposed expenditures for the direct costs of research**

Consult chapter 3 of the *Researchers' Guide* regarding eligibility of expenditures for the direct costs of research and regulations governing the use of grant funds. Use additional page(s) to explain and justify each budget item.

***Salaries and benefits***

Give the names (if known), categories of employment and proposed salaries (indicating the amount of non-discretionary benefits) of students, postdoctoral fellows, assistants, etc. Briefly describe the responsibilities for each position for which support is requested.

***Equipment or facility***

Give a breakdown of the items requested, models, manufacturers, prices, and applicable taxes. Justify the need and urgency for each piece of equipment requested in Part II of the proposal. Provide two recent quotations for items or systems costing more than $25,000.

Fees to be paid for the use of equipment or a facility should be described.

***Materials and supplies***

Provide details; explain major items.

***Travel***

Explain briefly how each activity relates to the proposed research.

***Dissemination costs***

Justify funds for user workshops and the expected participation of industry and/or government.

***Other expenses***

List all items not relevant to previous categories and provide a brief explanation for major items.

Report the need for ship time (append form 128) and the amount requested. Form 128 is available from the NSERC Web site only (www.nserc.ca).

***Relationship to other research support***

Applicants must provide clear and concise information on the conceptual and budgetary relationship or difference between this application and all other support (currently held or applied for).

The onus is on the applicant to provide sufficient information to enable a review committee to evaluate the relationship with other sources of support and to recommend the appropriate NSERC funding level. The consequence of not providing adequate information to assess the relationship to other research support is that the selection committee can recommend reduced or no funding.

## Page 5

***Contributions from supporting organizations***

If appropriate, use page 5 of the budget to indicate the contributions from industry, university and other sources to the research project. Consult Appendix 8 of the *Researchers' Guide* for information on the eligibility of in-kind contributions. Provide an explanation of the cash and eligible in-kind contributions; use an additional page if necessary.

Transfer the total amount of the **Cash Contributions to Direct Costs of Research** from industry and other sources to the appropriate line on page 4.

### Page 6

Use page 6 if the application includes the purchase of an equipment item or the installation of a facility costing $150,000 or more. Report expected revenues in "Total cash contribution from university" and/or in "Total cash contribution from other sources" on page 4 only for the year(s) you are requesting support for operation and maintenance costs.

## PART II

This part of the application is "free form" and should be printed single-sided on regular white paper, as described in the General Presentation standards on page 2.

In a maximum of 10 single-sided pages, describe your proposal using the headings below and addressing the selection criteria for the program (consult the *Researchers' Guide* ).

***Synopsis:*** Provide a concise overview of the scientific and technical objectives, the approach and the new knowledge, expertise or technology that could be transferred to the non-university partners. Indicate the benefits expected to accrue to the non-university partner, to the academic institution and to the scientific or engineering discipline.

***Background:*** Relate the proposal to current scientific and/or technical developments in the field referring to the current literature. Describe the background research on which the project is built. If you or one of your co-applicants currently hold an NSERC project grant in a related area, submit a separate two-page status report outlining the progress against the milestones as awarded.

***Proposed research:*** Describe the scientific issues, research questions and technical challenges; the objectives both short and long term and the research methodology and experimental design. Discuss the anticipated significance of the work, highlighting the relevance of the scientific or technical advances or the innovative techniques, process or products that will be developed.

***Benefits to Canada:*** Discuss the benefits of the proposed research and its potential impact within a reasonable time on Canada's economy, industry, society and/or environment.

***Team expertise:*** For all group applications describe the pertinent expertise, and the role and expected contributions of each team member to the project. Explain how the contributions of team members will be integrated. If the proposal involves large or dispersed research teams, provide details of how the team will be managed and any management structure.

***Training:*** Provide a training plan describing the role of students, postdoctoral fellows, research associates, technicians (referring to the information provided in the budget justification) and the research staff of the non-university partner, including the extent to which all participants are involved in the training. Describe any opportunities for training in settings that encourage interaction with other participants in the project. If the project does not involve training, this should be justified.

***Intellectual Property:*** Discuss plans for the protection and disposition of intellectual property arising from the grant. Include a copy of any research or intellectual property agreement that exists between the university and the supporting organizations. (See Section 1.5 of the *Researchers' Guide* .)

**Note:**

- Your list of references must conform to the General Presentation standards described on page 2.
- Do not refer readers to Web sites for additional information on your proposal.

## APPENDICES

### Appendix A – Environmental Impact

Complete Appendix A for all research involving a possible impact on the environment, hazardous substances, field work, or field or marine stations.

### Appendix B - Referee Suggestions

Give the name, complete mailing address, telephone and facsimile numbers, e-mail address, and the area(s) of expertise of potential referees. Suggested referees must not be thesis supervisors, former students, current or former collaborators or departmental colleagues ("former" means within the last six years), employees of organizations with which you have or formerly had collaboration, or those providing letters of support for your application. Referees should be able to review the proposal in the language in which it is written. You may also request in a covering letter that some researchers not be involved in the review of your application (your request will be taken into account by NSERC).

### Material Required From Supporting Organizations (Form 120)

Form 120 is required for all applications involving private sector sponsors or collaborators. Each supporting organization must provide a complete copy of the form and relevant attachments. Copies of the form are available on NSERC's Web site or from university research grants offices.

## How to submit your application

When you submit your application, make sure you include all required documentation and appendices. Remember that most universities have an internal deadline date that is earlier than NSERC's deadline date. As a result, plan ahead. Make sure you allow enough time before the application deadline.

Use the following checklist to make sure your application is complete.

### Strategic Project Grants

- ❑ Form 101
  - ❑ Part I
  - ❑ Part II (maximum of 10 pages)
  - ❑ Appendix A (Environmental Impact) – if required
  - ❑ Appendix B (Referee Suggestions)
- ❑ Form 100 (for the applicant and each co-applicant)
  - ❑ Part I
  - ❑ Part II
  - ❑ Appendix A (Personal Data) – one original only – do not photocopy
  - ❑ Appendix B (Eligibility Questionnaire) – if eligibility needs to be determined – one original only – do not photocopy
  - ❑ Appendix C (Description of Applicant's Activities) – if required
- ❑ Status Report – if applicable
- ❑ Form 128 (Ship Time) – if applicable
- ❑ Quotes for Equipment – if applicable
- ❑ Form 120 (Material required from supporting organizations)

**Number of copies (including original): 12**

Incomplete applications may be rejected or may be at a disadvantage in comparison with those that are complete. Late applications or material received under separate cover will not be accepted. Consult the *Researchers' Guide* for the application deadline for a specific program.

# C.4 Research Network Grants (RNG)

## Completing Form 101 – Step-by-step

Applicants must complete Form 101 (Parts I and II and required appendices). For deadlines and other information consult the *Researchers' Guide.*

## PART I

### Page 1

**Title of proposal**

The title will be used for publication purposes. It should describe the subject of the proposal. Spell out scientific symbols and acronyms.

**Codes**

Consult the NSERC *Code Book* for code tables.

### Page 2

**Co-applicants**

For applications from groups, list each co-applicant's name, personal identification number, and organization, as well as the time (in hours per month) each will devote to the proposed research.

Co-applicants, except those from the applicant's university, must obtain their organization's signature agreeing to their participation.

### Page 3

**Summary of proposal for public release**

The summary is intended to explain the proposal in language that the public can understand.

Using simple terms, briefly describe the nature of the work to be done. Indicate why and to whom the research is important, the anticipated outcomes, and how your field and Canada will benefit. Applicants may also provide a summary in the second official language on an additional page.

**Research activity schedule**

List the tasks required to achieve the objectives for each year of the grant. Indicate the start and end dates for the activities leading to the milestones as well as the major results expected.

## Page 4

**Proposed expenditures for the direct costs of research**

- Consult chapter 3 of the *Researchers' Guide* regarding eligibility of expenditures for the direct costs of research and regulations governing the use of grant funds. Use additional page(s) to explain and justify each budget item. Provide a budget page (page 4) for each of the following:
  - the entire network; and
  - each major theme area or project.

***Salaries and benefits***

Give the names (if known), categories of employment and proposed salaries (indicating the amount of non-discretionary benefits) of students, postdoctoral fellows, assistants, etc. Briefly describe the responsibilities for each position for which support is requested.

***Equipment or facility***

Give a breakdown of the items requested, models, manufacturers, prices, and applicable taxes. Justify the need and urgency for each piece of equipment requested in Part II of the proposal. Provide two recent quotations for items or systems costing more than $25,000.

Fees to be paid for the use of equipment or a facility should be described.

***Materials and supplies***

Provide details; explain major items.

***Travel***

Explain briefly how each activity relates to the proposed research.

***Dissemination costs***

Justify funds for user workshops and the expected participation of industry and/or government.

***Other expenses***

List all items not relevant to previous categories and provide a brief explanation for major items.

Report the need for ship time (append form 128) and the amount requested. Form 128 is available from the NSERC Web site only (www.nserc.ca).

Include expenses associated with operating the administrative centre for the network, including costs for network meetings, communications, and technology transfer.

***Relationship to other research support***

Applicants must provide clear and concise information on the conceptual and budgetary relationship or difference between this application and all other support (currently held or applied for).

The onus is on the applicant to provide sufficient information to enable a review committee to evaluate the relationship with other sources of support and to recommend the appropriate NSERC funding level. The consequence of not providing adequate information to assess the relationship to other research support is that the selection committee can recommend reduced or no funding.

## Page 5

***Contributions from supporting organizations***

If appropriate, use page 5 of the budget to indicate the contributions from industry, university and other sources to the research network. Consult Appendix 8 of the *Researchers' Guide* for information on the eligibility of in-kind contributions. Provide an explanation of the cash and eligible in-kind contributions; use an additional page if necessary.

Transfer the total amount of the **Cash Contributions to Direct Costs of Research** from industry and other sources to the appropriate line on page 4.

## Page 6

Use page 6 if the application includes the purchase of an equipment item or the installation of a facility costing $150,000 or more. Report expected revenues in "Total cash contribution from university" and/or in

"Total cash contribution from other sources" on page 4 only for the year(s) you are requesting support for operation and maintenance costs.

## PART II

This part of the application is "free form" and should be printed single-sided on regular white paper, as described in the General Presentation standards on page 2.

In a maximum of 60 single-sided pages, describe your proposal using the headings below and addressing the selection criteria for the program (consult the *Researchers' Guide* ).

***Planning:*** Discuss the strategic planning process and the consultations that resulted in the proposal.

***Overview of the network:*** Provide an overview of the network's research program including the scope, the focus and scientific or technical objectives, the proposed approach and the new knowledge, expertise or technology that could be generated. Describe the nature of the network linkages and how the results will be integrated to achieve the objectives. Describe the anticipated value of the research results highlighting the relevance of the scientific or technical advances or the innovative techniques, processes or products that will be developed. Indicate the benefits expected to accrue to the academic, public or private sector participants and their institutions.

***Background:*** Relate the proposal to current scientific and/or technical developments in the field referring to the current literature. Describe the background research on which the network is built. Explain the relationship of the research program to other initiatives in this area in Canada and abroad.

If you or one of your co-applicants currently hold an NSERC project grant in a related area, submit a separate two-page status report outlining the progress against the milestones as awarded.

***For each major theme area:***

- identify the theme leader and participants;
- summarize the specific objectives, approaches, research plan, methods, schedule and milestones;
- describe the pertinent expertise, role and expected contributions of the participants and how they will be integrated;
- provide details on where the research will be carried out and the roles of the participants and their ability to contribute to the research;
- describe how the theme area fits into the overall network and contributes to achieving the objectives of the network.

***Training:*** Provide a training plan describing the role of students, postdoctoral fellows, research associates, technicians (referring to the information provided in the budget justification) and the research staff of the non-university partner, including the extent to which all participants are involved in the training. Describe any opportunities for training in settings that encourage interaction with other participants in the network. Discuss the capacity of the user sector to absorb the graduates.

***Interactions and Partnerships:***

- indicate how the research priorities of the participating sectors have been integrated and incorporated into the network's research plan;
- discuss the linkages in existence and to be created in the network among universities, industry and governments;
- describe the nature and the extent of involvement of the user sector in the research and in the research planning, direction and management;
- describe the communications mechanisms proposed for internal communications among the participants and how they will accelerate the exchange of research results within the network;
- describe the mechanisms for knowledge and/or technology transfer;
- describe the communications strategy to publicize the successes and activities to the scientific community, the partners and the general public.

***Management and Budgeting:*** See instructions for completing Page 4 in part I for the specific budget information and explanations needed.

- Justify the proposed budget and duration of the project including the support from non-council sources and the strategy for achieving the projected levels of contribution.
- Describe the network management structure including:
  - roles and responsibilities of the committees and the expertise of key personnel;
  - the administrative and operational structures and their roles in coordinating activities, monitoring progress, setting schedules and controlling expenditures;
  - the responsibility for planning, decision making and resource allocation within the network;
- Provide an organizational chart showing names and affiliations.

***Advantages of a Network Approach:***

- Indicate the incrementality that would be achieved by funding the proposed network;
- Show how increased linkages and networking will result in sharing equipment and facilities and reduce redundancies in research efforts;
- Explain why networking and a multidisciplinary, multi-sectorial approach to the research are required to achieve the network's objectives;
- Provide a rationale detailing the **value added** by a university-based network to the problems being addressed in this proposal.

***Benefit to Canada:*** Discuss the benefits of the proposed research and its potential impact within a reasonable time on Canada's economy, industry, society and/or environment.

***Intellectual Property:*** Discuss plans for the protection and disposition and sharing of intellectual property arising from the grant. Include a copy of any research or intellectual property agreement that exists between the university(ies) and the supporting organizations. (see Section 1.5 of the *Researchers' Guide* )

**Note:**

- Your list of references must conform to the General Presentation standards described on page 2.
- Do not refer readers to Web sites for additional information on your proposal.

# APPENDICES

## Appendix A – Environmental Impact

Complete Appendix A for all research involving a possible impact on the environment, hazardous substances, field work, or field or marine stations.

## Appendix B – Referee Suggestions

Give the name, complete mailing address, telephone and facsimile numbers, e-mail address, and the area(s) of expertise of potential referees. Suggested referees must not be thesis supervisors, former students, current or former collaborators or departmental colleagues ("former" means within the last six years), employees of organizations with which you have or formerly had collaboration, or those providing letters of support for your application. Referees should be able to review the proposal in the language in which it is written. You may also request in a covering letter that some researchers not be involved in the review of your application (your request will be taken into account by NSERC).

## Material Required From Supporting Organizations (Form 120)

Form 120 is required for all applications involving private sector sponsors or collaborators. Each supporting organization must provide a complete copy of the form and relevant attachments. Copies of the

form are available on NSERC's Web site or from university research grants offices.

## How to submit your application

When you submit your application, make sure you include all required documentation and appendices. Remember that, for the majority of the programs, universities have an internal deadline date that is earlier than NSERC's deadline date. As a result, plan ahead. Make sure you allow enough time before the application deadline.

Use the following checklist to make sure your application is complete.

### Research Network Grants

- ❑ Form 101
  - ❑ Part I
  - ❑ Part II (maximum 60 pages)
  - ❑ Appendix A (Environmental Impact) – if required
  - ❑ Appendix B (Referee Suggestions)
- ❑ Form 100 (for the applicant and each co-applicant)
  - ❑ Part I
  - ❑ Part II
  - ❑ Appendix A (Personal Data) – one original only – do not photocopy
  - ❑ Appendix B (Eligibility Questionnaire) – if eligibility needs to be determined – one original only – do not photocopy
  - ❑ Appendix C (Description of Applicant's Activities) – if required
- ❑ Status Report – if applicable
- ❑ Form 128 (Ship Time) – if applicable
- ❑ Quotes for Equipment – if applicable
- ❑ Form 120 (Material required from supporting organizations)
- ❑ Letter of support from the university president

**Number of copies (including original): 15**

Incomplete applications may be rejected or may be at a disadvantage in comparison with those that are complete. Late applications or material received under separate cover will not be accepted. Consult the *Researchers' Guide* for the application deadline for this program.

# C.5 University – Industry Project Grants

## Collaborative Research and Development Grants (CRD)
## Technology Partnerships Program (TPP)
## Research Partnership Agreements (RPA)
## Industrial Research Chairs (IRC)
## Chairs in the Management of Technological Change (CMTC)

## Completing Form 101 – Step-by-step

Applicants must complete Form 101 (Parts I and II and required appendices). Proposals are accepted at any time for all grants listed above except Chairs in the Management of Technological Change, which has an annual competition. For that deadline and other information, consult the *Researchers' Guide* .

## PART I

### Page 1

**Applicant**

The applicant is responsible for administering the grant.

- For Industrial Research Chairs and Chairs in the Management of Technological Change applications, also enter the name of the candidate (if known)

**Title of proposal**

The title will be used for publication purposes. It should describe the subject of the proposal. It should not contain a company or trade name. Spell out scientific symbols and acronyms.

**Codes**

Consult the NSERC *Code Book* for code tables.

### Page 2

**Co-applicants**

For applications from groups, list each co-applicant's name, personal identification number, and organization, as well as the time (in hours per month) each will devote to the proposed research.

Co-applicants, except those from the applicant's university, must obtain their organization's signature agreeing to their participation.

### Page 3

**Summary of proposal for public release**

The summary is intended to explain the proposal in a language that the public can understand.

Using simple terms, briefly describe the nature of the work to be done. Indicate why and to whom the research is important, the anticipated outcomes, and how your field and Canada will benefit. Applicants may also provide a summary in the second official language on an additional page.

**Research activity schedule**

List the tasks required to achieve the objectives for each year of the grant. Indicate the start and end dates for the activities leading to the milestones as well as the major results expected.

- The milestone definition and the work plan (provided in Part II) will be used to assess whether a project is feasible and whether the available resources are adequate to complete it on schedule.

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## Pages 4 and 4 U-I

### University industry research program/project budget

**Proposed expenditures for the direct costs of research**

Consult chapter 3 of the *Researchers' Guide* regarding eligibility of expenditures for the direct costs of research and regulations governing the use of grant funds. Read the instructions for contributions from other sources and consult Appendix 8 for information on eligible in-kind contributions. Include only cash and tangible in-kind contributions. Note that eligible cash contributions from supporting organizations must be deposited in a university grant account.

- For Industrial Research Chairs, use an additional page to describe the Global Chair Budget for chair candidate(s). Using the same format as page 4, list for each year:

  *Salary cost:*
  Chairholder's salary including benefits
  *Contribution to salary*
  Industry
  Other
  NSERC
  *Research costs: (from page 4)*
  Direct costs of research program
  *Contribution to research costs*
  Industry
  Other
  NSERC
  *Donations and other contributions*
  (specify)

  *Total Cost of the Chair*

  *Total Contributions*
  Industry
  Other
  NSERC

- For Industrial Research Chairs and Chairs in the Management of Technological Change applications, use page 4 or similar format for the research component. Provide a separate budget for each faculty position.

- For Collaborative Research & Development, Technology Partnerships Program or Research Agreements projects **involving tangible contributions in-kind** (i.e., the supporting organization is providing services, materials, or other items essential to carry out the activities described in the proposal), use page 4 U-I or similar format. Itemize the resources required in each year. List the items to be paid from cash contributions in the first column of each year, and the donated items in the second column. Use a second page for projects lasting more than three years. Do not index for inflation.

Use additional pages to explain and justify the need for each budget item. Provide sufficient information to allow reviewers to assess whether the resources requested are appropriate.

***1) Salary and benefits***

Give the names (if known), categories of employment and proposed salaries (including non-discretionary benefits) of students, postdoctoral fellows, and research staff. Briefly describe the responsibilities for each position. Do not include salaries of faculty in project costs.

***2) Equipment or facility***

Give a breakdown of the items requested. Provide details on models, manufacturers, prices, and applicable taxes. Justify each item requested. Provide two recent quotations for components or systems costing more than $25,000. List purchase or rental fees, operation and maintenance costs, and user fees.

***3) Materials and supplies***

Provide details; explain major items.

***4) Travel***

List separately by category, such as conference, field work, project-related travel.

***5) Dissemination costs***

Include such items as publication costs.

***6) Technology transfer activities (page 4 U-I)***

List the expenditure for field trials, building prototypes, scale-up costs, or demonstration projects, and other miscellaneous expenses.

***Relationship to other research support***

Applicants must provide clear and concise information on the conceptual and budgetary relationship or difference between this application and all other support (currently held or applied for).

## Page 5

***Contributions from supporting organizations***

Complete page 5 if the supporting organization is committing resources in addition to those listed on page 4, or if there are two or more supporting organizations. Complete a separate page for each supporting organization. List the resources the supporting organization will provide to support the proposed activities including:

- the cash contribution to direct costs of research (transfer amount to page 4);
- the in-kind contribution to direct costs of research: include only tangible in-kind, i.e, donations of services, materials, and equipment (transfer amount to page 4 if applicable), and
- other in kind.

  (optional) indicate the amount paid to the university for overhead.

## Page 6

- Collaborative Research and Development: Use page 6 if the project grant application includes the purchase of an equipment item or the installation of a facility costing $150,000 or more. Report expected revenues in section(s) "Total cash contribution from university and/or other sources" on page 4.

# PART II

This part of the application is "free form" and should be printed single-sided on regular white paper, as described in the General Presentation standards on page 2. Follow the instructions below and address the selection criteria for the program you are applying to (consult the NSERC *Researchers' Guide* ).

- **Collaborative Research and Development Grants (CRD)**

Using the headings below and in a maximum of 10 single-sided pages, describe your proposal.

***Synopsis:*** Provide a concise overview of the scientific or technical objectives, approach, and the new knowledge, expertise, or technology that could be transferred to Canadian industry. Indicate the benefits expected to accrue to Canadian industry, to the academic institution, and to the scientific or engineering discipline.

***Background:*** Relate the proposal to current scientific, technical and commercial developments in the field, referring to the current literature and market conditions. Describe the background research on which the project is built. If the project is a sequel to an earlier project, a progress report on the preceding work must be provided.

***Detailed proposal:*** Discuss the scientific issues, research problems or technical complexities, and describe the research methodology and experimental design proposed to explain or resolve them. Provide a work plan and relate it to the milestone schedule in Part I.

***Team expertise:*** Explain how the knowledge and experience of each team member relates to the

expertise needed to accomplish the project objectives, and how the contributions of the team members will be integrated. If the applicant or any co-applicant anticipates taking sabbatical or other leave during the grant period, describe the impact on the research.

***Research management:*** If the proposal involves large or dispersed research teams, provide a plan for how the project will be managed to provide both day-today direction and scientific leadership, as well as maintain good communication between the university research group(s) and the industrial sponsor(s).

***Training of highly qualified personnel:*** Describe the opportunities the project offers for advanced training, or other relevant experience, for students, postdoctoral fellows, or supporting organizations'R&D staff.

***Intellectual property:*** Discuss the plans for protecting, and disposing of intellectual property arising from the grant. Outline the broad terms of the agreement between the company and the university on the rights to exploit the technology being transferred. (A copy of the agreement must be provided to NSERC.)

***Value of the results:*** Describe the anticipated value of the project results, highlighting the relevance of the scientific or technical advances, or the innovative techniques, processes or products that will be developed. Show how the outcome will address a current or future industrial or market need, and to the extent possible, indicate the additional work required for commercialization and the potential impact, within a reasonable time, on Canada's economy, industry, society and/or environment.

- **Research Partnership Agreements with Canadian Government Departments and Agencies (RPA)**
  - National Research Council (NRC)/NSERC Research Partnerships Program
  - Department of National Defence (DND)/NSERC Research Partnerships Program
  - Agriculture and Agri-Food Canada/NSERC Research Partnerships Program
  - Canadian Forestry Service (CFS)/NSERC/SSHRC Forest Research Partnerships Program
  - Canadian Space Agency (CSA)/NSERC Research Partnerships Program
  - Earth Sciences Sector (EES) of Natural Resources Canada (NRCAN)/NSERC Research Partnerships Program

Consult the program descriptions for the individual RPAs for detailed instructions for applying for a grant. Program descriptions are available on the web (www.nserc.ca) and from university research grants offices, or contact the RPA program officer at NSERC.

- **Technology Partnerships Program (TPP)**

Using the headings below and in a maximum of 10 single-sided pages, describe your proposal.

***Detailed project proposal:*** Describe the scientific and/or technical background to the proposed project, and the progress or results to date that suggest commercial potential. Discuss the state of the art and the prevailing market conditions. Show the novelty in the product, process or service that you propose to develop compared to the technology currently available. Describe in detail the technical transfer and development activities that will be undertaken. Identify the technical objectives, the technical problems to be solved, the experimental approach to overcome these problems, and the main area of technical risk. State how the technical risk or uncertainty will be managed. If the project is broken into phases, describe each phase and specify the performance objectives and decision points. Indicate where the work will be done and by whom. Show a breakout of the costs associated with sub-projects or phases in the budget.

Provide a timetable for the project tasks. Explain the key milestone events and any related decision points.

***The research group:*** Highlight the practical experience and research, business, and industrial backgrounds of each of the key members of the project team. Include faculty and non-faculty members both from the university and the industrial partner.

Describe how the team will be organized and the project managed. Provide a bar graph or similar diagram to illustrate the work schedule. Show how the company will acquire the expertise to exploit the university-sourced technology as a result of the project.

***Industrial partnership:*** Profile the existing company capabilities and forecast any growth anticipated as a result of incorporating the project results into its commercial operations. Describe the firm's history, general line of business and how the project fits within the company's objectives for technical and commercial growth.

Indicate how the company intends to undertake further activities required at the end of the currently funded phase of the project to take a product, process, or service to market.

***Business information:*** Describe the target market, the performance or market constraints that will affect successful commercialization, and the anticipated market share. Report on any market survey done to date. Estimate the impact of a successfully completed project on the company's operations in terms of business opportunities, new or improved product lines, or increased competitiveness, and on the creation or maintenance of jobs. Describe any indirect benefits that could accrue to the company, or to the economy in general, as a result of the project.

***Business plan:*** The supporting company(ies) are asked to use the guidelines provided in Form 120 (Preparing a Project Business Plan) to describe and justify the company's strategy for commercializing the project results. The business plan may be incorporated in the detailed project or it may be submitted as a separate document.

***Intellectual property:*** Discuss the plans for protecting, and disposing of intellectual property arising from the grant. Outline the broad terms of the agreement between the company and the university on the rights to exploit the technology being transferred. (A copy of the agreement must be provided to NSERC.)

- **Industrial Research Chairs (IRC)**

**Proposal for establishing a chair (to be prepared by the university).**

Using the headings below and any other aspects pertinent to the evaluation of the proposal, and in a maximum of 6 single-sided pages, discuss the following topics.

**Note**
Chair proposals presented for approval in principle before a chair candidate is identified should provide a broad overview of the intended research area, with the detailed research proposal and detailed budget to be prepared by the chair candidate when selected.

- Discuss the rationale for establishing the proposed chair(s), what motivates the university and the industry to join forces, their long-term commitment to the area of research, and their respective expectations;
- Describe the nature of the position(s) to be created, the candidate's qualifications, background and personal qualities, and how these match the requirements of the position;
- If the candidate has not been identified, describe the selection process to be followed in recruiting a candidate;
- Indicate each chairholder's anticipated tenure status, appointment level, and teaching and administrative responsibilities;
- If a proposed chairholder is an internal candidate, explain how the university will use freed-up salary funds to strengthen the area of research of the chair;
- State where the chair will be positioned within the academic setting, and describe the expectations for interaction with other individuals/departments/ disciplines;
- List the research facilities and infrastructure and cash support the university will provide to the research program, as well as its long-term commitment to the field of research represented by the chair.

***Research capacity:*** Describe the present research capacity (personnel and facilities) and how they are expected to change over the term of the chair.

***Intellectual property:*** Discuss the plans for protecting, and disposing of intellectual arising from the grant. Outline the broad terms of the agreement between the company and the university on the rights to exploit the technology being transferred. (A copy of the agreement must be provided to NSERC.)

***Incrementality:*** Indicate how the scientific quality, overall level, and industrial relevance of the university research activity will be enhanced by the creation of the new position(s).

***Detailed research proposal:*** (to be prepared by the chair candidate when identified). Using the headings below and in a maximum of 10 single-sided pages, describe the research proposal.

***Synopsis:*** Provide a concise overview of the scientific or technical objectives, approach, and the new knowledge, expertise, or technology that could be transferred to Canadian industry. Indicate the benefits expected to accrue to Canadian industry, the academic institution, and to the scientific or engineering discipline.

***Background:*** Relate the proposed research to the current state of scientific, technical, and commercial developments in the field, with references to the current literature and prevailing conditions. Describe the past accomplishments upon which the new program will be built.

***Proposed research:*** Describe in detail the research program to be undertaken. Outline the scientific, technical, or strategic areas encompassed, and the research problems or technical complexities involved. Discuss the hypotheses and methodologies proposed for their elucidation or resolution. Emphasize the innovative approaches to be taken, and/or novel results to be obtained.

Also describe the major results and accomplishments expected at key points in the five years of the chair.

***Proposed collaborations:*** Describe anticipated collaborations with academic colleagues and how these will enhance the capacity to meet the objectives of the chair. Show how their various contributions will be integrated. Where relevant, outline very briefly the collaborators'complementary research programs.

Similarly, describe the expected interactions of the chair with and the effect on the supporting organization(s) and the broader industrial community.

***Research management:*** Describe the organizational and management structures planned for (a) the effective scientific direction and management of the research personnel and facilities, and (b) the communication between the university research group and the industrial sponsor(s).

***Training of highly qualified personnel:*** Describe the opportunities the chair offers for advanced training, or other relevant experience, for students, postdoctoral fellows, or supporting organizations'R&D staff, in the area proposed for the chair.

***Letters of reference:*** Three letters of reference from qualified experts must be sent by the referee directly to NSERC.

- **NSERC/SSHRC Chairs in the Management of Technological Change (CMTC)**

Detailed instructions for preparing an application are contained in the *Guide for Applicants*, available on the SSHRC Web site (www.sshrc.ca) or from the CMTC program officer at NSERC or at SSHRC.

# APPENDICES

## Appendix A – Environmental Impact

Complete Appendix A for all research involving a possible impact on the environment, hazardous substances, field work, or field or marine stations.

## Appendix B – Referee Suggestions

Applicants and their industrial partners are invited to suggest the names of several people competent to assess the technical, business and commercial aspects of their proposal.

Give the name, complete mailing address, telephone and facsimile numbers, e-mail address, and the area(s) of expertise of potential referees. Suggested referees must not be thesis supervisors, former students, current or former collaborators or departmental colleagues ("former" means within the last six years), employees of organizations with which you have or formerly had collaboration, or those providing letters of support for your application. Referees should be

able to review the proposal in the language in which it is written. You may also request in a covering letter that, because of a conflict of interest, a specific researcher or organization not be involved in the review of your application.

### Material Required From Supporting Organizations (Form 120)

Form 120 is required for all applications involving private sector sponsors or collaborators. Each supporting organization must provide a complete copy of the form and relevant attachments. Copies of the form are available on NSERC's Web site or from university research grants offices.

## How to submit your application

Use the following checklist to make sure your application is complete.

### CRD, TPP, RPA, IRC, CMTC

- ❑ Form 101
  - ❑ Part I
  - ❑ Part II
  - ❑ Appendix A (Environmental Impact) – if applicable
  - ❑ Appendix B (Referee Suggestions) – one copy only
- ❑ Form 100
  - ❑ Part I
  - ❑ Part II
  - ❑ Appendix A (Personal Data) – one original only – do not photocopy
  - ❑ Appendix B (Eligibility Questionnaire) – if applicable – one original only – do not photocopy
  - ❑ Appendix C (Description of Applicant's Activities) – if applicable
- ❑ Letters of Reference (IRC and CMTC)
- ❑ Form 120 (Material required from supporting organizations) and attachments:
  - ❑ Profile of company/R&D programs
  - ❑ Business Plan (TPP only)
  - ❑ Statement on ownership of supporting organization (if applicable)
- ❑ Supporting organization's letter of support
- ❑ Annual Report/financial statement (1 copy – if applicable)
- ❑ Quotes for equipment (minimum of 2) – for items over $25,000, if equipment requested
- ❑ Form 128 (Ship Time) – if applicable

**Number of copies (including original): 7**

# C.6 Equipment Grants (including Major Equipment and Major Installation)

## Completing Form 101 – Step-by-step

Applicants must complete Form 101 (Parts I and II and required appendices). For deadlines and other information consult the *Researchers' Guide* .

## PART I

### Page 1

**Type of grant**

Equipment grant applications are divided into three categories according to the total cost (before tax) of the equipment, and not according to the amount requested from NSERC. The categories are:

- Equipment Grants: $7,001 to $150,000
- Major Equipment Grants: $150,001 to $325,000
- Major Installation Grants: more than $325,000

**Title of proposal**

The title will be used for publication purposes. It should describe the equipment applied for. It should not contain a company or trade name. Spell out scientific symbols and acronyms.

### Page 2

**Co-applicants**

For applications from groups, list each co-applicant's name, personal identification number, and organization, as well as time (in hours per month) each will devote to the use of the equipment or facility.

Co-applicants, except those from the applicant's university, must obtain their organization's signature agreeing to their participation in the proposed research.

Only major (frequent) users should be listed as co-applicants and need to obtain their organization's signature and submit Form 100.

### Page 3

**Summary of proposal for public release**

The summary is intended to explain the proposal in language that the public can understand.

Using simple terms, briefly describe the equipment or the facility that is requested, and the nature of the work to be supported. Indicate why and to whom the research is important, the anticipated outcomes, and how your field and Canada will benefit. Applicants may also provide a summary in the second official language on an additional page.

## Page 4

**Proposed expenditures for the direct costs of research**

Consult chapter 3 of the *Researchers' Guide* regarding eligibility of expenditures for the direct costs of research and regulations governing the use of grant funds. Use additional page(s) to explain and justify each budget item.

Equipment grants are normally one-year awards for **capital expenditures**. If more than one year of funding is requested, a detailed justification should be provided.

***Salaries and benefits***

Give the names (if known), categories of employment and proposed salaries (including non-discretionary benefits) of students, postdoctoral fellows, assistants, etc. Briefly describe the responsibilities for each position for which support is requested.

***Equipment or facility***

Give a breakdown of the items requested, models, manufacturers, prices, and applicable taxes. Justify each item requested. Provide two recent quotations for items or systems costing more than $25,000.

Items costing less than $7,000 each can be purchased with Research Grants funds or be included as a complement to a main piece of equipment being requested.

***Materials and supplies***

Provide details: explain major items.

***Travel***

Explain briefly how each activity relates to the proposal.

***Other expenses***

List all items not relevant to previous categories and provide a brief explanation for major items.

## Page 5

You are not required to submit page 5.

## Page 6

- Major Equipment and Major Installation

Use page 6 to report expected revenues for a Major Equipment or Major Installation (do not use first two columns). Transfer expected "Cash contribution from university" and "Other contributions" (items 3 and 4) to page 4 of Form 101. Do not transfer "User fee revenues" (items 1 and 2) to page 4.

# PART II

This part of the application is "free form" and should be printed single-sided on regular white paper, as described in the General Presentation standards on page 2.

***Page limits***

| | |
|---|---|
| Equipment: | 2 (2 additional pages are allowed if more than 4 major users) |
| Major Equipment: | 10 |
| Major Installation: | 20 |

Follow the instructions and address the selection criteria for the equipment grant program you are applying to (consult the *Researchers' Guide* ). Using the headings below and the maximum number of single-sided pages permitted, describe:

- For all equipment proposals,
  - the research program(s) to be supported;
  - the equipment requested and the reason(s) for the configuration proposed;
  - the necessity of purchasing the proposed equipment or facility to undertake the research programs effectively;

- the availability of similar equipment in the same department, elsewhere in the university, or at nearby institutions;
- the accessibility and degree of utilization of such equipment and, where applicable, the necessity of replacing existing equipment;
- the impact on the research program of a delay in acquiring the equipment;
- how the proposed equipment will be used for training.

**In addition,**

- Major Equipment and Major Installation Grant applications must include:
  - details of a clearly defined and workable organizational structure to ensure the equipment or installation will be operated and maintained efficiently and effectively and that it will respond adequately to user requirements.
- Applications for Research Computers

  Applications for computing equipment are considered on the same basis as all other equipment applications, including proposals to develop computing facilities to support research programs. Equipment grant funds may be used to purchase hardware and/or to pay for the acquisition of software.

Regarding the Year 2000 Computer Issue, discuss briefly the Y2K compliance of the equipment or software requested. If you are applying for the replacement of equipment or software that is not Y2K compliant, you should explain in your justification your reason for acquiring new, rather than upgrading existing, equipment or software.

# APPENDICES

## Appendix A – Environmental Impact

Complete Appendix A for all research involving a possible impact on the environment, hazardous substances, field work, or field or marine stations.

## Appendix B – Referee Suggestions

- Major Installation Grant applications – this appendix is required.

  Give the name, complete mailing address, telephone and facsimile numbers, e-mail address, and the area(s) of expertise of potential referees. Suggested referees must not be your thesis supervisor, former students, current or former collaborators or departmental colleagues ("former" means within the last six years). Referees should be able to review the proposal in the language in which it is written.

**Letters of Support**

Unless specified in the instructions, **additional documents such as letters of support must not be submitted and will be removed.** The exception to this rule is letters from users attesting to the nature and the significance of technical and internal reports described in your Personal Data Form (Form 100). For additional information, refer to Appendix 6 in the *Researchers' Guide* .

- Major Installation Grant applications

  A covering letter from the president of the university or his/her delegated representative is required for Major Installation applications. The letter must indicate the importance and priority that the university places on the proposed equipment or facility and the extent to which the university proposes to provide support (e.g., provision of space, financial contribution to the purchase and installation, funding of technical support staff, etc.).

- Major Equipment Grant applications

  A letter from the Department Chair is required. The letter must indicate the importance and priority that the department places on the proposed equipment and the extent to which the department proposes to provide support.

## How to submit your application

When you submit your application, make sure you include all required documentation and appendices. Remember that most universities have an internal deadline date that is earlier than NSERC's deadline date. As a result, plan ahead. Make sure you allow enough time before the application deadline.

Use the following checklist to make sure your application is complete.

### Equipment Grant

- ❑ Form 101
  - ❑ Part I (pages 1, 2, 3 and 4 for all and page 6 for Major Equipment and Major Installation)
  - ❑ Part II (see section "Page Limit")
  - ❑ Appendix A (Environmental Impact) – if applicable
  - ❑ Appendix B (Referee Suggestions) – for Major Installation
- ❑ Form 100 (for the applicant and each co-applicant)
  - ❑ Part I
  - ❑ Part II
  - ❑ Appendix A (Personal Data) – one original only – do not photocopy
  - ❑ Appendix B (Eligibility Questionnaire) – one original only – do not photocopy (if required)
  - ❑ Appendix C (Description of Applicant's Activities) – if required
- ❑ Quotes (minumum of 2) – for items over $25,000
- ❑ For Major Equipment – Letter of support from head of department
- ❑ For Major Installation – Letter of support from President

**Number of copies (including original):**

- **Equipment Grants 3**
- **Major Equipment and Major Installation 10**

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Incomplete applications may be rejected or may be at a disadvantage in comparison with those that are complete. Late applications or material received under separate cover will not be accepted. Consult the *Researchers' Guide* for the application deadline.

# C.7 Major Facilities Access Grants (MFA)

## Completing Form 101 – Step-by-step

Applicants for all NSERC grants must complete Form 101 (Parts I and II and required appendices). For deadlines and other information consult the *Researchers' Guide* .

## PART I

### Page 1

**Title of proposal**

The title will be used for publication purposes. It should indicate the facility to be supported. It should not contain a company or trade name. Spell out scientific symbols and acronyms.

**Codes**

Consult the NSERC *Code Book* for code tables.

### Page 2

**Co-applicants**

For applications from groups, list each co-applicant's name, personal identification number, and organization, as well as the time (in hours per month) each will devote to the use of the facility.

Co-applicants, except those from the applicant's university, must obtain their organization's signature agreeing to their participation.

Only major (frequent) users should be listed as co-applicants and need to obtain their organization's signature and submit Form 100.

### Page 3

**Summary of proposal for public release**

The summary is intended to explain the proposal in language that the public can understand.

Using simple terms, briefly describe the nature of the work to be done, the equipment, or the facility and major programs it supports. Indicate why and to whom the research is important, the anticipated outcomes, and how your field and Canada will benefit. Applicants may also provide a summary in the second official language on an additional page.

## Page 4 (MFA)

**Facility costs**

Report revenues and expenditures only once.

Consult chapter 3 of the *Researchers' Guide* regarding eligibility of expenditures for the direct costs of research and regulations governing the use of grant funds. Use additional page(s) to explain and justify each budget item. Provide sufficient information to allow reviewers to assess whether the resources requested are appropriate.

On this page, report 1) the total direct costs to be paid from all sources, and 2) the direct costs to be paid from NSERC funding, for running the facility. These costs must correspond to the previous fiscal year, the current fiscal year, and the next three fiscal years for which funds are requested.

***Salaries and benefits***

Give the names (if known), categories of employment and proposed salaries (including non-discretionary benefits) of professional and technical staff employed to provide support to users, or to maintain and operate the facility.

***Facility***

Costs for materials and supplies related to the maintenance and operation of the facility should be included under the categories "Maintenance" and "Operating costs." Also include costs for minor equipment/upgrades essential to the maintenance and operation of the facility.

***Travel***

Explain briefly how each activity relates to the maintenance and operation of the facility.

***Other expenses***

List all items not relevant to previous categories and provide a brief explanation for major items.

***Relationship to other research support***

Applicants must provide clear and concise information on the conceptual and budgetary relationship or difference between this application and all other support (currently held or applied for).

The onus is on the applicant to provide sufficient information to enable a review committee to evaluate the relationship with other sources of support and to recommend the appropriate NSERC funding level. The consequence of not providing adequate information to assess the relationship to other research support is that the selection committee may recommend reduced or no funding.

## Page 5

You are not required to submit page 5.

## Page 6

Use page 6 to report previous, current and expected revenues for an MFA grant. Transfer the total revenues to the same item on page 4.

Under item 4 (Other contributions to direct costs), do not include current or requested NSERC grant amounts. These amounts should appear at the bottom of page 4.

NSERC suggests that holders of MFA grants adhere to the following guidelines regarding user fees:

| Type of User | Appropriate Fee |
|---|---|
| Researchers and their students (Internal and external) | Lowest rate charged |
| Non-academic users from organizations contributing to the facility | One step above the lowest rate |
| Non-academic users from non-participating organizations | Highest rate |

In some cases, a moderate differential between internal and external academic users may be appropriate: however, NSERC expects that all co-applicants on the original MFA application will be charged the lowest available rate.

## PART II

This part of the application is "free form" and should be printed single-sided on regular white paper, as described in the General Presentation standards on page 2.

Follow the instructions and address the selection criteria for the program you are applying to (consult the *Researchers' Guide* ). Using the headings below and in a maximum number of 15 single-sided pages:

- describe the research activities supported by the facility.

In addition, each co-applicant may submit one page on which they:

- indicate the number of hours/days of use and the fees paid in each of the last three years;
- describe the past and expected impact of the facility or resource on their research program and on the training of highly qualified personnel;
- provide a list of the contributions (e.g., publications, patents, technical reports, etc.) that depended upon the use of this facility or resource (in the previous three years).

## APPENDICES

### Appendix A – Environmental Impact

Complete Appendix A for all research involving a possible impact on the environment, hazardous substances, field work, or field or marine stations.

## How to submit your application

When you submit your application, make sure you include all required documentation and appendices. Remember that most universities have an internal deadline date that is earlier than NSERC's deadline date. As a result, plan ahead. Make sure you allow enough time before the application deadline.

Use the following checklist to make sure your application is complete.

### Major Facilities Access Grants

- ❑ Form 101
  - ❑ Part I (pages 1, 2, 3, 4 and 6)
  - ❑ Part II (maximum of 15 pages and 1 additional page per co-applicant)
  - ❑ Appendix A (Environmental Impact) – if applicable
- ❑ Form 100 (for the applicant and each co-applicant)
  - ❑ Part I
  - ❑ Part II
  - ❑ Appendix A (Personal data) – one original only – do not photocopy
  - ❑ Appendix B (Eligibility Questionnaire) – one original only – do not photocopy (if applicable)
  - ❑ Appendix C (Description of Applicant's Activities) – if applicable

**Number of copies (including original): 10**

Incomplete applications may be rejected or may be at a disadvantage in comparison with those that are complete. Late applications or material received under separate cover will not be accepted. Consult the *Researchers' Guide* for the application deadline.

# C.8 International Opportunity Fund (IOF)

## Completing Form 101 – Step-by-step

Applicants must complete Form 101 (Parts I and II and required appendices). For deadlines and other information consult the *Researchers' Guide* .

## PART I

### Page 1

**Title of proposal**

The title will be used for publication purposes. It should describe the subject of the proposal. It should not contain a company or trade name. Spell out scientific symbols and acronyms.

**Codes**

Consult the NSERC *Code Book* for code tables.

### Page 2

**Co-applicants**

List each co-applicant's name, personal identification number (if known), and organization, as well as the time (in hours per month) each will devote to the activity to be supported.

Co-applicants, except those from the applicant's university, must obtain their organization's signature agreeing to their participation.

### Page 3

**Summary of proposal for public release**

The summary is intended to explain the activity in a language that the public can understand.

Using simple terms, briefly describe the nature of the work to be done. Indicate why and to whom the research is important, the anticipated outcomes, and how your field and Canada will benefit. Applicants may also provide a summary in the second official language on an additional page.

**Research activity schedule**

List the tasks required to achieve the objectives for each year of the grant. Indicate the start and end dates

for the activities leading to the milestones as well as the major results expected.

- The milestone definition and the work plan (provided in Part II) will be used to assess whether a project is feasible and whether the available resources are adequate to complete it on schedule.

## Page 4

**Proposed expenditures for the direct costs of the activity**

Consult chapter 3 of the *Researchers' Guide* regarding eligibility of expenditures for the direct costs of the activity and regulations governing the use of grant funds. Remember that the IOF program does not support research cost but rather supports activities that will lead to international research collaborations. Use additional page(s) to explain and justify each budget item. Provide sufficient information to allow reviewers to assess whether the resources requested are appropriate.

***Travel***

Explain briefly how each activity relates to the proposal.

***Other expenses***

List all items not relevant to previous categories and provide a brief explanation for major items.

***Relationship to other support***

Applicants must provide clear and concise information on the conceptual and budgetary relationship or difference between this application and all other support (currently held or applied for).

The onus is on the applicant to provide sufficient information to enable a review committee to evaluate the relationship with other sources of support and to recommend the appropriate NSERC funding level. The consequence of not providing adequate information to assess the relationship to other support is that the selection committee can recommend reduced or no funding.

## Page 5

***Contributions from supporting organizations***

If appropriate, indicate the contributions from industry, university and other sources on page 5. Consult chapter 3 of the *Researchers' Guide* regarding the eligibility of expenditures for the direct costs of such activities.

Use page 5 (one copy for each organization) to provide details of eligible in-kind contributions. Contributions to certain ineligible items (such as stipends to researchers and university overhead charges) may be recorded on that page as contributions to the indirect costs of research. Consult Appendix 8 of the *Researchers' Guide* for information on the eligibility of in-kind contributions. Do not include in-kind contributions on page 4.

# PART II

This part of the application is "free form" and should be printed single-sided on regular white paper, as described in the General Presentation standards on page 2. Using the headings below and a maximum number of 8 single-sided pages, address the selection criteria for the IOF program (consult the *Researchers' Guide*). It must be remembered that the program does not fund research but rather supports new Canadian participation in international research collaborations.

Part II of Form 101 should provide a brief plain-language description of the opportunity, and should provide details on:

- the objective of the proposed international activity;
- the anticipated benefit of the activity to Canada and Canadian research;
- current Canadian efforts in the area in question; and
- where this particular initiative fits in the international scene of research in the field.

It should also describe the following:

- composition and expertise of the group making the proposal;
- prior collaboration, if any, among the members of the group, and the potential for research collaboration after the termination of the grant; and
- potential funding sources for research collaboration arising from the IOF-supported activities.

## APPENDICES

NSERC will ask applicants to complete Appendix A (Environmental Impact) if required and Appendix B (Referee Suggestions) upon request.

## How to submit your application

When you submit your application, make sure you include all required documentation and appendices. Remember that most universities have an internal deadline date that is earlier than NSERC's deadline date. As a result, plan ahead. Make sure you allow enough time before the application deadline.

Use the following checklist to make sure your application is complete.

### International Opportunity Fund

- ❑ Form 101
  - ❑ Part I
  - ❑ Part II (maximum of 8 pages)
- ❑ Form 100 (for the applicant and each co-applicant)
  - ❑ Part I
  - ❑ Part II
  - ❑ Appendix A (Personal Data) – one original only – do not photocopy
  - ❑ Appendix B (Eligibility Questionnaire) – one original only – do not photocopy (if applicable)
  - ❑ Appendix C (Description of Applicant's Activities) – if applicable

**Number of copies (including original): 5**

Incomplete applications may be rejected or may be at a disadvantage in comparison with those that are complete. Consult the *Researchers' Guide* for the application deadline.

# D. Completing Form 120 (Material Required From Supporting Organizations)

## Instructions for Supporting Organizations

Form 120 is required for all applications involving private sector sponsors. Each of these organizations must provide a completed copy of the form and relevant attachments. Copies of the form are available on the NSERC Web site or from university research grants offices.

**Note**
Non-private sector sponsors (including non-government organizations) are not required to submit Form 120 but must provide a letter from the organization (see Section 3 below).

**Codes**

Consult the enclosed NSERC Industry/Product and Services Codes to find the appropriate codes.

### What you should submit

1. The completed form (private sector sponsors only).
2. Attachments to the form
   a) If an applicant or co-applicant has ownership in a sponsoring company, a statement showing how the relationship complies with the NSERC guidelines for researcher-owned companies.

**Note**
Attachments b), Profile of the company, and c), Annual report, are not required for Strategic Project or Research Network applications.

b) A concise profile of the company (not more than ½ page), including the nature of its operations (including production, manufacturing, provision of services, or similar commercial activities) in Canada and its existing or planned capacity to use project results. Include (if applicable) a description of the R&D programs, with details of any public funding received directly related to the proposal.

**Note**
For TPP, a full business plan is required (see Appendix 1 for more details on preparing a project business plan).

c) A copy of the company's most recent annual report, if available, or other evidence of the company's financial position (the latter will be considered confidential).

3. A letter from each supporting organization.

The letter must be on the organization's letterhead and signed by a senior representative of the organization. It must indicate:

- the organization's support for and agreement with the proposal submitted to NSERC;
- the reasons for being involved in the proposed collaboration;
- how the organization expects to integrate the results into its operations or to otherwise benefit from the anticipated outcomes;
- (for projects) the further effort required to exploit the results in Canada;
- the potential for benefit to the Canadian economy, and in what time frame;
- the anticipated interaction of the organization's personnel with the university researchers; and
- the contribution to the direct costs of the research, in cash and in kind, as stated in the research proposal.

If you have questions or if you need advice on the process, contact the Research Partnerships Directorate at (613) 996-1898.

## What do signatures mean?

The signatures of authorized officers of other supporting organizations certify that:

- the organization agrees with the content of the application and will provide the committed resources; and
- the organization agrees to the release of the public summary of the award and to the publication of the organization's name as a supporter of the initiative.

## What about confidentiality and privacy protection? What does NSERC do with the information provided?

As a federal government institution, NSERC is subject to access to information and privacy protection laws.

The *Privacy Act* sets out strict rules for the management and protection of personal information by federal institutions. Personal information collected on and with this form is stored in the Personal Information Bank for the appropriate program. It is used to make decisions about grant applications, to administer awards and to generate statistics. For more complete details of the application of the *Privacy Act* and the use and disclosure of personal information, consult Appendix 2 of the NSERC *Researcher's Guide*.

The *Access to Information Act* gives Canadian citizens and individuals resident in Canada a limited right of access to information contained in government files. It also protects certain kinds of sensitive information in cases where disclosure would result in an injury. For example, the Act contains an exemption for sensitive commercial information provided to government institutions in confidence by companies.

NSERC routinely publishes and disseminates certain details about successful applications, including the name of the applicant(s) and supporting organizations, amount awarded, field of research, project title, and in some programs, a non-technical summary of the proposal prepared by the applicant for public release.

Do not hesitate to contact NSERC if you have specific concerns about privacy, confidentiality, or the use, management and disclosure of information.

## How to submit this information

You should return the completed form and accompanying documents**to the applicant** to be submitted with the application.

- For University-Industry applications only, the sponsor's information may be sent directly to NSERC. Please provide 7 copies and ensure that the form correctly identifies the applicant, university and title of the proposal.

## Mailing Address

Send your correspondence to:

NSERC
350 Albert Street
Ottawa, Ontario K1A 1H5
Canada

# Appendix 1

# Preparing a Project Business Plan (for TPP only)

## Why a Business Plan is Needed

The Technology Partnerships Program (TPP) Project Business Plan is used to establish the credibility of the industrial partner's plan to take a product to market and its capacity to carry the plan out.

TPP grant applications are reviewed by a Project Review Committee (PRC) whose members have both academic credentials and business expertise. The PRC must be assured that the people involved in the project can help the participating Canadian company take commercial advantage of the results of the university research.

Once an expert technical review has established that a technology[1] is based on sound science or engineering principles, the PRC looks for evidence that the project makes sense from a business point of view. The PRC must be persuaded that:

- the company has the resources (people and financing) to carry out the commercialization; and
- the corporate and academic partners together can respond effectively to an identified market need or opportunity.

The business plan is a critical factor in helping the PRC to decide whether or not a TPP project should be funded. Depending on the nature of the technology and the stage of development, it may not be possible to include all of the following points. However, as many as possible should be covered, in order to convince the PRC that there is a good business opportunity and a sound plan to seize it.

The entire business plan should not exceed 10 pages.

### What to Include in the Business Plan

**Executive Summary**

This is the most important part of the business plan; the success of the application will depend to a great extent on the quality and credibility of the Executive Summary. This section should highlight in plain and direct language:

- the company's line of business and its business objectives;
- the management expertise and experience;
- the key or unique elements of the technology;
- how these key elements will provide a significant commercial advantage over existing technologies;
- how this competitive advantage will be sustained;
- the market conditions: the market size; location; and special features;
- how the technology will be exploited and marketed;

- financial projections, including the resources to withstand price competition from established firms or competing technologies; and
- the anticipated impact on the company.

Examples of significant advantage, such as a strong patent position, a dominant market position, an unassailable cost advantage, or a key alliance with a strategic partner, should be cited.

The Executive Summary should be written last, and should not exceed one page.

## Product and Marketing Information

This section should demonstrate to the reader that the product is commercially viable, that the applicants have a thorough and detailed understanding of the identified market, and that they have a sound plan to reach it. Discuss in lay terms:

- the features that will make the product commercially attractive to customers;
- the core technology and how it provides the commercial edge;
- the segment, sector, and size of existing or potential markets;
- where relevant, the market location, its special requirements, or regulatory constraints within it;
- the actual and potential competition from existing products or alternative technologies;
- pricing and marketing strategy;
- market projections for the proposed new product, process or service for the first 3 to 5 years; and
- how the company will create a sustainable competitive advantage during that time.

## Company Information

Both established and start-up companies are acceptable as corporate partners as long as they can clearly demonstrate that they have the capacity both to support the TPP project and to rapidly commercialize the results. Establish the company credentials by describing:

- the company's background and history: when it was started, who owns it, its growth record, the number of employees, where it is located, and present or planned facilities;
- the line of business it is in, or plans to be in;
- the core competencies of the company;
- the human resources available or anticipated (list the key management and technical personnel and members of the Board of Directors or Advisory Board, with their backgrounds, expertise, business experience, and their roles in the company's operations); and
- why the company is the appropriate vehicle to take this particular technology to market.

## Financial Projections

In this section, demonstrate that the company's prospects for financial viability are high and that there is a good likelihood that the technology will be profitable for the company and/or make it more competitive. To do this effectively, present:

- the best estimates (3- to 5-year projections) for financing company operations over the course of the TPP project and the subsequent commercialization stage;
- the timing of equity investment and debt participation;
- the amount and timing of cash in-flow and out-flow;
- profit and loss forecasts based on:
  - sales forecasts,
  - projections of production and operations costs,
  - sales expenses, and
  - anticipated earnings.

Pro forma balance sheets at start-up and at the end of each year of the projected operation would be useful. Explain the assumptions on which the projections are based.

## Risk Assessment

TPP funding is intended to reduce the risk to a company of undertaking a project with a high degree of commercial uncertainty. Provide the company's views of the risks associated with the project, identify other stakeholders who will share them, and indicate what measures will be taken to reduce or control the uncertainties. The PRC will wish to know the risks associated with:

- advancing the technology to a product;
- developing the market for the product; and
- manufacturing, marketing, and distributing the product.

A risk assessment will also include the major decision points and the specifications or other criteria that have to be met, as well as how and by whom the decisions will be made. In this section also provide contingency plans in the event of problems.

## Economic Impact

Funding a TPP project is an investment of public funds. Like all investments it can only be justified by a financial or economic return. The PRC decision will be influenced by a realistic assessment of the potential benefits with respect to:

- the company's operations or competitiveness;
- the company's financial situation, physical expansion, and number of employees;
- other commercialization partners, companies, or industrial sectors;
- students and employees involved; and
- the university and the economy as a whole.

# Industry/Products and Services Codes

To help NSERC assess how much various industrial sectors are participating in its programs, each private sector organization is requested to choose the most appropriate code from the following list.

If the company has diversified activities, choose the code for the main line of business or that of the subsidiary or part of the company for which eligibility is requested.

**1000 FARMING AND AGRICULTURAL INDUSTRIES**
1001 Animals and animal products
1002 Plant and plant products
1003 Aquaculture

**1100 FISHING AND RELATED INDUSTRIES**

**1200 FORESTRY INDUSTRIES**
1201 Forestry products
1202 Pulp and paper
1203 Other wood products

**1300 PRINTING AND PUBLISHING**

**1400 MINING AND QUARRYING INDUSTRIES**
1402 Aggregates
1403 Metal and coal mines

**1500 PETROLEUM AND NATURAL GAS INDUSTRIES**

**1600 NUCLEAR INDUSTRY AND PRODUCTS**

**1700 FOOD AND BEVERAGE INDUSTRIES**
1701 Food processing and packaging
1702 Beverages
1703 Animal feed

**2000 ADVANCED MATERIALS MANUFACTURING**

**2100 POLYMERIC MANUFACTURING**
2101 Rubber
2102 Plastics

**2200 TEXTILE INDUSTRY AND PRODUCTS**

**2400 PRIMARY METALS INDUSTRY**
2401 Iron and steel
2402 Non-ferrous metals

**2500 FABRICATED METALS INDUSTRY AND PRODUCTS**
2501 Heat exchangers
2502 Structural metals
2503 Stamped and pressed products

**2600 MACHINERY (NON-ELECTRICAL)**
2601 Farm machinery and equipment
2602 Engines, generators, turbines and reactors
2603 Refrigeration and air conditioning equipment
2604 Hydraulic and pneumatic equipment
2605 Construction, forestry and mining machinery
2606 Mechanical power transmission equipment

**2700 TRANSPORTATION EQUIPMENT INDUSTRY**
2701 Motor vehicles and parts
2702 Aerospace
2703 Shipbuilding and submersibles
2704 Train locomotives and cars

**2800 ELECTRICAL AND ELECTRONIC PRODUCTS**
2801 Communications equipment
2802 Electrical industrial equipment
2803 Electronic parts and components
2804 Appliances and consumer electronics

**2900 COMPUTING INDUSTRIES**
2901 Computer hardware
2902 Software and related services

**3000 NON-METALLIC MINERAL PRODUCTS**
3001 Cement and concrete
3002 Glass
3003 Abrasives
3004 Asphalt

**3100 PETROLEUM AND CHEMICAL PRODUCTS**
3101 Inorganic chemicals
3102 Organic chemicals and products
3103 Petroleum products
3104 Biotechnology

**3300 PHARMACEUTICALS AND MEDICAL PRODUCTS**

**3400 SCIENTIFIC AND PROFESSIONAL EQUIPMENT**
3401 Laboratory equipment
3402 Medical equipment

**3500 OPTICAL AND PHOTOGRAPHIC EQUIPMENT**

**3600 CONSUMER PRODUCTS INDUSTRY (NON-ELECTRONIC)**

**4000 BUILDING CONSTRUCTION AND GENERAL CONTRACTING**

**4100 INDUSTRIAL AND HEAVY ENGINEERING CONSTRUCTION**
4101 Bridges and roads
4102 Waterworks, sewage and pipelines
4103 Power plants

**4300 TRANSPORTATION SERVICES**

**4500 COMMUNICATIONS AND BROADCASTING SERVICES**

**4600 UTILITIES**
4601 Electricity
4602 Gas supply
4603 Water supply

**4700 WASTE MANAGEMENT SERVICES**

**5000 BUSINESS SERVICES**

**5500 CONSULTING SERVICES**

**5700 ENGINEERING, SCIENTIFIC AND TECHNICAL SERVICES**

**6000 PUBLIC ADMINISTRATION**
6001 Federal government departments and agencies
6002 Provincial, territorial, and local governments
6003 International and extraterritorial governments

**7000 EDUCATIONAL SERVICES**

**8000 HEALTH SERVICES**

**9000 BUSINESS, PROFESSIONAL, AND LABOUR ORGANIZATIONS**

**9999 ALL OTHER INDUSTRIES**