Eligibility

- Check NSERC eligibility for applicant and co-applicant(s) to apply for this program.
  - University faculty: You must hold or have a firm offer of an academic appointment at an eligible Canadian university at the time of application.
  - Adjunct professors: Adjunct professors who meet NSERC’s eligibility criteria and whose primary place of employment is at an eligible Canadian university can apply. Those whose primary place of employment is outside the university sector (e.g., government, industry or colleges) are eligible to apply as co-applicants.

- Check NSERC eligibility for the industry partner participation in the project. Any proposed partner must have a credible plan for exploiting the research results within Canada and must show that it has the necessary expertise and resources to exploit the research results, or the means and intention to develop this capacity within an appropriate time frame.

U of A Signature Requirements

- Create and complete a University of Alberta (U of A) Internal Signature Page in your Research Home Page (Create Application/Proposal/Project) (RSO instructions).

- The NSERC CRD is considered a matching program and qualifies for 0% ICR under the ICR rate recovery procedure. You can choose to include indirect costs on the industry matching funds at a rate between 0-20%. If your industry partner is Syncrude, discuss ICR treatment with your Research Facilitator.

- The Supporting Organization must provide cash toward the project; select YES to the question “Are matching/partner funds in place or intended to be obtained for this project”. Use the comments section to confirm if cash is already here and if so include the Project RES #. If the cash is not already here, provide the industry contact details or refer to the Form 183a for industry contact details.

- Print out the U of A internal form and obtain signatures of Applicant, Chair, Dean and all Signatures of U of A co-applicants (if any).

- External co-applicants will require sign-off from their institution which should be in the form of a signature on the NSERC Form 101 under the supporting organizations section. Note: RSO must verify that external co-applicants have advised the authorized officer of their organization that the applicant is participating in the application. If you are participating as a co-applicant on a CRD lead by another institution, RSO must sign the NSERC Form 101 under the supporting organizations section indicating U of A support for your participation in the proposal.

- Industry Partners should sign both the Form 101 and the Form 183a. Note: If the industry partner created the Form 183a and linked it to the application in the NSERC system, this is considered their electronic signature on both the Form 101 and Form 183a.

Completing the Application

- Attached documents are to be prepared following the NSERC On-line Presentation and Attachment Standards.

Cover Letter

- Optional and used to provide NSERC with additional information that will not be shared with external reviewers, such as a justified request that an individual, a group of individuals, or an organization not be involved in the review of the proposal. NSERC will take such a request into consideration. The cover letter must contain PI name, the NSERC program, and the title of the application.

Application for a Grant (Form 101) for the Applicant

- Application profile (including proposal title, time devoted (hours/month), target area and research topic, keywords, areas of research, certification requirements, amounts requested).

Co applicants, Collaborators, Industry Partner

- By linking their Form 100 to the Form 101, co-applicants are deemed to have provided their electronic signature on the application. U of A co-applicants also need to sign the U of A internal signature page and complete the co-applicant declarations.

- Ensure that the co-applicants from other institutions obtain the appropriate signature from the authorized officer of their organization prior to submitting the application to NSERC – on page 2 and page 3 of the Form 101.
- If a co-applicant is a principal of a collaborating organization, another senior official needs to sign on behalf of their organization.

- Industry partners should sign both the Form 101 and the Form 183a. **Note:** If the industry partner created the Form 183a and linked it to the application in the NSERC system, this is considered their electronic signature on both the Form 101 and Form 183a.

- Collaborators (no signatures required).

- **Summary of Proposal:** Plain language description of the project. This will be the description available to the public if the project is funded.

- **Activity Schedule:** Project start and end dates should match dates identified on the U of A internal signature page.

- **Proposed Expenditures:** Salaries, equipment, materials, travel, dissemination, and technology transfer.

- **Contributions from Supporting Organizations** (cash, in-kind and indirect costs):
  - This is an NSERC matching program and under our Indirect Costs of Research Rate Recovery Procedure, ICR applied to the industry cash contributions can range from 0 to 20%.
  - In-kind toward the direct cost of research is matched by NSERC up to an equivalent amount of industry cash.
  - The information here must be consistent with the Form 183a and the Letter of Support.
  - Cash contributed before the proposal is submitted may be used to start the project, but NSERC will not recognize industrial funds spent more than three months prior to the date of submission. If industry funds have already been used, a Financial Overview report must be attached to the proposal showing funds available up to 90 days prior to the submission of the CRD. Also, any indirect costs already incurred on these funds will not be reversed and will need to be shown in the table.
  - NSERC funds cannot be applied to expenses incurred before a project was approved.

- **Budget Justification** (attachment): Provide a detailed explanation and justification for each budget item identified in the Proposed Expenditures page. Provide sufficient information to allow reviewers to assess whether the resources requested are appropriate. These pages should only contain information pertinent to the budget. Show calculations and how you arrived at totals.

  **Note:** **Expenditures related to project management** are eligible as a direct cost of research up to a maximum of 10% of the total direct costs.

- **Salaries and Benefits**:
  - Give the names (if known), categories of employment and proposed salaries (with explicit indication of the non-discretionary benefits) of students, postdoctoral fellows, and research staff. Briefly describe the responsibilities for each position and indicate the percentage of time they will be spending on this project over its life span. Do not include salaries of faculty in project costs.
  - Student benefits should be estimated at 10% of salary ([link](#)).
  - Effective September 1, 2017, the Postdoctoral Fellow minimum stipend is $37,795.86 per annum with additional health and dental benefits – single coverage of $707.16/annum and family coverage of $2,040.12/annum. Employer CPP and IE costs at 7.5% of salary also need to be included (minimum costs for a PDF would be $41,340).
  - Technicians/support staff include benefits costs at 23% and Trust Research Associates include benefits costs at 20%.

- **Equipment or Facility**:
  - Give a breakdown of the items requested. Provide details on models, manufacturers, prices and applicable taxes (recommend using a table). Justify the need for each item requested. Where the research project relies on existing facilities already available, you can use this section to describe the existing facilities and how they will be used to support the research.
  - Fees to be paid for the use of equipment or a facility should be described (e.g., estimate of # hours and rate).

- **Materials and Supplies**: Provide details and explain major items. **Note:** Equipment and materials obtained from a supporting organization must be provided as an in-kind contribution. NSERC funds must not be used to buy products and services from a supporting organization.

- **Travel**:
  - Explain briefly how each activity relates to the proposed research.
  - Project related travel should include # of participants, meeting frequency and estimated cost per meeting.
  - Conference travel should include expected venues and estimated travel costs for # of participants.
  - Field work should include # of participants, duration and location with estimated costs.

Edited: March 19, 2018
- **Dissemination:** Provide details of publication costs, user workshops or other activities. Consider including your strategy for ensuring open access for your publications here as all new NSERC funding must comply with the Tri-Agency Open Access Policy. Grant recipients are required to ensure that any peer-reviewed journal publications arising from Agency-supported research are freely accessible within 12 months of publication. Recipients can do this through either Online Repositories or publish in a journal that offers immediate open access or that offers open access on its website within 12 months.

- **Technology Transfer Activities:** List the expenditure for field trials, building prototypes, scale-up costs, demonstration projects, workshops, and other miscellaneous expenses associated with knowledge transfer to the supporting organization(s).

- **Other Expenses:** List all items not relevant to previous categories, and provide a brief explanation for major items.

- **Contributions from Supporting Organizations (justification of in-kind) (attachment):** Provide a detailed explanation of the in-kind contributions to the direct costs of research. This information will be used to assess the level and nature of the partner involvement, the importance of their contribution to the success of the project and an appropriate cost-sharing ratio. For rules on the eligibility of specific types of in-kind contributions see the table at this [link](#).

- **Salaries for scientific and technical staff:** List the name of each staff member, their role at the company and their specific expertise, details as to what they will be providing to the project (link to milestones if possible), the number of hours they will devote to the project, and their hourly rate. (NSERC normally does not recognize hourly rates in excess of $100/hour and would discount amounts using rates over $100/hour.)

- **Donation of equipment, software:** List each item of equipment and/or software being donated to the project, explaining how it will be used and its importance to the success of the project; provide details on how the cost of the equipment/software was calculated.

- **Donation of material:** Describe the materials to be provided, their importance to the project and how the cost of the materials was calculated.

- **Field work logistics:** Describe the importance of the proposed field work to the project and provide details on how the cost of the field work was calculated.

- **Provision of services:** Provide details on the services to be provided, the importance of these services to the success of the project and how the cost of providing these services was calculated.

- **Other:** Provide sufficient details on items listed in this category, their importance to the project and the calculation of associated costs.

- **Relationship to Other Research Support (attachment):** 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 by the applicant and co-applicants as listed in their Form 100’s. Also explain perceived duplication in funding or, if applicable, indicate how the current application complements research funded by other sources. For each grant currently held or applied for, 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.

- **Proposal:** When developing your proposal (maximum 10 pages), keep in mind the following program selection criteria:

  - **Scientific merit:** The project must be scientifically sound, technically feasible, and promise either to generate new knowledge or to apply existing knowledge in an innovative manner.

  - **Competence of the research team:** The applicant and the research team together must have all the expertise required to address the defined objectives competently and to complete the project successfully. Academic expertise may be complemented with the know-how from the industrial partner(s).

  - **Training opportunities:** The proposal must include a student training component. It must indicate how the knowledge and experience gained by graduate students, postdoctoral fellows, research assistants or others, including company personnel, are relevant to the advancement of the field, to developing practical applications of knowledge, or to strengthening the industrial research base. The number of undergraduate and graduate students trained is expected to be commensurate with the size of the project. Students and postdoctoral fellows are expected to enhance their skills through interactions with the industrial partner(s) (e.g., participation in planning meetings, active exposure to industrial processes such as R&D, manufacturing, regulatory, intellectual property, commercialization, etc.).
Industrial relevance and benefits: The industrial partner(s) must contribute an appropriate amount from its own resources to the project, consistent with the risks and rewards involved, and must be in a position to exploit successful research results. The proposal must identify how the work will benefit the industrial partner(s) and demonstrate that the exploitation of the project results will benefit the Canadian economy within a reasonable timeframe.

Benefit to Canada: As well as the economic benefit to Canada described under the Industrial Relevance criterion above, the proposal should outline any additional economic, social, and environmental benefits that could be realized in Canada within a reasonable timeframe.

University support: For large or complex proposals (greater than $200,000 per year), the proposal must demonstrate adequate university support for the project by detailing the specific commitments of the university regarding the provision of financial support, equipment, and/or facilities.

Budget: The proposal must provide a detailed explanation and justification for each budget item. Provide sufficient information to allow reviewers to assess whether the resources requested and the level of the industrial cash and in kind commitments are appropriate. A significant portion of the budget must be allocated to salaries for students and postdoctoral fellows.

The Proposal should include the following sections:

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.

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 from the ACTIVITY SCHEDULE section. Describe the roles of any undergraduate or graduate students, or postdoctoral fellows who will be involved in the project. If applicable, clearly justify the need for any additional support staff such as research assistants, technicians or other professional staff who may be required to carry out the project.

Team expertise: Explain how the knowledge and experience of each researcher relates to the expertise needed to accomplish the project objectives, and how the contributions of the team members (including, if applicable, company personnel) 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: Provide a plan for how the project will be managed to provide both day-to-day direction and scientific leadership, as well as maintain good communication between the university research group(s) and the industrial partner(s). If applicable, please detail the project manager’s qualifications, involvement, role and responsibilities.

Training of highly qualified personnel: The proposal must include a student training component. Describe how the knowledge and experience gained by graduate students, postdoctoral fellows, research assistants or others, including industrial partner(s)’s personnel, is relevant to the advancement of the field, to developing practical applications of knowledge, or strengthening the industrial research base. The number of undergraduate and graduate students trained is expected to be commensurate with the size of the project. Students and postdoctoral fellows are expected to enhance their skills through interactions with the industrial partner(s) (e.g., participation in planning meetings, active exposure to industrial processes such as R&D, manufacturing, regulatory, IP, commercialization, etc.). Describe the nature of the proposed interactions where appropriate. If this is a joint CRD/Mitacs Accelerate internship, additional space is available to include the proposed work plan for the Mitacs internship unit(s). Summary showing which intern will work on which objective and when is required. Include the Name of the intern; specific objectives of the internship or subproject; expected deliverables; benefit to the intern; partner interaction; activities performed at the partner organization and percent of time the intern will spend at the partner’s location. If the minimum interaction is less than 50% include a justification.

Value of the results and industrial relevance: Describe the anticipated value of the project results, highlighting the industrial relevance of the scientific or technical advances, or the innovative techniques, processes or products that will be developed. Clearly identify how the work will benefit the company by showing how the outcome will address a current or future industrial or market need. To the extent possible, indicate the additional work the company will have to do to exploit the results of the research for commercialization. Describe how the exploitation of the project results will benefit the Canadian economy within a reasonable time.

Benefit to Canada: As well as the economic benefit to Canada described in the previous section, outline any additional economic, social, and/or environmental benefits that will or could be realized in Canada.

University support: For large and complex proposals (requesting at least $200,000 per year from NSERC), describe the specific commitments made by the university for the project, including financial and technical support as well as equipment and/or facilities.
**References**: Use this section to provide a list of literature references. Do not refer readers to websites and do not introduce hyperlinks in your list of references.

**Intellectual property**: Under the NSERC IP Policy, access to research results developed wholly or in part using NSERC funds, may include the following arrangements: open dissemination with no restrictions; non-exclusive licensing; exclusive licensing; joint ownership; partial assignment of ownership; or full assignment of ownership. The U of A generally uses inventor assigned ownership, including joint ownership and non-exclusive licensing. **IP should follow the following guiding principles**:

1. Encourage the utilization of research results, developed wholly or in part using NSERC funds, in Canada for the benefit of Canadians.
2. Promote the development of fruitful and productive partnerships and recognize the unique contribution each partner brings to the partnership and the need for each partner to benefit from the relationship and have their interests protected.
3. Support the publication of research results in the open literature. NSERC does not support secret or classified research.
4. Ensure that a student’s graduation is not impeded by IP issues.
5. Support a researcher’s right to use his/her research results for non-commercial purposes in future research and in teaching.

Where an agreement has not been completed with the industry partner, we suggest the following statement be included in this section: **A formal agreement will be negotiated between the industrial sponsor and the U of A which will respect both the University policies and NSERC policies related to treatment of intellectual property**.

**Intellectual property** (attachment): Include a copy of the executed or draft agreement associated with the project if available.

**Other documents**: As needed, and could include any of the following:

- Collaborator’s CV(s);
- Maximum of a three-page report on an ongoing or recently completed, related CRD of $100,000/year or larger;
- Modified Accelerate application if the proposal is a joint CRD/Mitacs internship; or
- If the industry funds are already at the U of A, include a financial overview report from your Researcher Home Page showing the funds available within 90 days of submission of this CRD.

Appended A (Environmental Impact) – if required

Appendix C (Referee Suggestions)

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**Personal Data Form (Form 100) for the Applicant and each Co-applicant**

- Personal information (appointment, academic background, HQP)
- Experience
- Research Support
- List of HQP
- Contributions – maximum 5 pages detailing contributions to R & D and HQP training in the past 6 years.
  - Most Significant Contributions to Research and/or Practical Applications (max 5)
  - Research Contributions & Practical Applications (e.g., publications – boldface students, list funding source)
  - Other Evidence of Impact and Contributions
  - Delays in Research Activity
  - Contributions to the Training of HQP
- Appendix A (Personal Data)
- Appendix B (Eligibility Questionnaire) (if required)
- Appendix C (Description of Applicant’s Activities) – if required
Information Required from Supporting Organizations (Form 183A) – For Each Industrial Partner

- Address, R&D activities, contributions of the organizations (direct costs, in-kind) and authorized representative.
- Letters of Support from all supporting organizations.
- Letter should include support level (cash and in-kind), agreement with proposal, reasons for being involved, how the organization expects to integrate or benefit from the anticipated outcomes, further effort to exploit the results in Canada or benefit to the Canadian economy, expected interaction between organization and researchers, description of any R&D done with public funding directly related to the application.
- You should confirm with your partner organization that this is considered to be a letter of commitment and that NSERC and the review committee makes their decisions based on the funding, in-kind and time commitments made in the Form 183a. We expect the industry agreement to reflect these commitments. If industry cannot commit funding amounts for the full term of the CRD, this needs to be clear at the time of application and be reflected in the letter of support.
- If the company’s profile is not available in the form of a brochure or leaflet, provide a concise profile of the company (not more than 1/2 page), including the nature of its operations (production, manufacturing, provision of services, or similar commercial activities) in Canada and its existing or planned capacity to use project results. Note that reference to the company’s Web site is not acceptable in lieu of the 1/2 page company profile. This is only required for first-time partners on NSERC grants.
- Statement of Ownership of supporting organization. This is only required if the company is owned in whole or in part by researchers.

Preparation Activities to Consider to Move Forward With the Industry Agreement

- Your Research Facilitator should include a request with the RSO Application Review to confirm the next steps for the industry partner agreement. Choices are to:
  1. Move forward with a Contract Specialist to negotiate an agreement ASAP if the partner is willing to fund the research irrespective of NSERC support;
  2. Negotiate during the period of NSERC review to have an agreement ready to execute when we receive NSERC’s funding decision, or
  3. Wait until we receive NSERC’s funding decision to start to negotiate the agreement.

If industry funds are already at the U of A, an agreement amendment will be needed at the time of the NSERC funding decision to match the project timing (end date) to the NSERC award.