



Technology Demonstration Program



Statement of Interest Application Guide



April 2014

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Programme de démonstration des technologies - Guide de déclaration d'intérêt

Introduction

This guide has been developed to assist in the completion of a Statement of Interest. It provides guidance on the information required for a Statement of Interest to be deemed complete and it provides information on the evaluation criteria in Annex 1 against which a Statement of Interest will be assessed, with a particular emphasis on the anticipated economic and broader benefits to Canada.

A Statement of Interest should not exceed 25 pages (8 ½ x 11 paper with 12 font size), excluding annexes. To be considered for the Technology Demonstration Program, applicants must submit a Statement of Interest by:

12pm on Friday June 27, 2014

Late submissions will not be accepted. A complete submission consists of one electronic version and one paper copy (unbound). It is acceptable to submit an electronic version by the specified due date and to send a paper copy thereafter to the address listed below:

Industrial Technologies Office
235 Queen Street, 8th floor, East Tower
Ottawa, Ontario K1A 0H5
Attention: Project and Claims Officer
Email: TDP-PDT@ic.gc.ca

Additional information on the program may be found in the Program Guide, available at www.ito.ic.gc.ca or by contacting the Industrial Technologies Office (ITO) at 1-800-266-7531 (Fax: 613-954-5649).

Confidentiality of Applicant's Information

Any information in the Statement of Interest that, in the applicant's opinion, is of a proprietary or confidential nature should be clearly marked "PROPRIETARY" or "CONFIDENTIAL" on each relevant item or page or in a statement covering the entire proposal. In addition, the text, Protected B, should be present on each page of the document, preferably in the top right corner of the header.

Section 1 – Applicant

The lead corporation (applicant) will be the legal entity with which the Crown enters into a contribution agreement. The applicant will be responsible for developing the project, assembling members, managing the project and reporting on results.

The information submitted under this section will be used to assess the **management and technological capability** of the applicant and its members to successfully undertake the project (evaluation criterion #5).

- Provide general information on the applicant, including the legal name, address, incorporation status, public or privately held status, total number of employees, number of employees in Canada, corporate structure including parent and subsidiaries, growth over time, area of specialization and share of key markets.
- Provide information to demonstrate that the applicant is an Original Equipment Manufacturer (OEM) or a Tier 1 company (supplying directly to an OEM).
- Describe the applicant's history in performing research and development (R&D): annual level of gross and net R&D investment over the past ten years in absolute terms and as a percent of sales, outcome of past R&D, and number of employees performing R&D in Canada. Describe the applicant's historical track record as it relates to technological development to demonstrate that it has the capability to undertake the project.
- Provide a point of contact for this Statement of Interest including name, title, phone, email and preferred language of communication.

Section 2 – Project

The Technology Demonstration Program (TDP) provides non-repayable contributions in support of demonstration projects that are expected to include activities up to the achievement of Technology Readiness Level (TRL 6). See Annex 2 for a description of the TRL scale. Demonstration projects cannot generally be directly commercialized upon project completion as further technological development and investment are required to tailor, adapt, test and validate results for specific product/service applications.

The project description should provide a clear understanding of the need for the project, its key elements and potential benefits. The project should be described in non-technical terms. Should the Applicant be invited to submit a Project Proposal, additional technical detail will be required at that stage for review by technical experts.

The information submitted under this section will be used to assess the project's **economic and broader benefits to Canada** (evaluation criteria #1 and #2) and degree of **innovation** (evaluation criterion #4).

In this section, provide a general, overview of the proposed project addressing each of the following areas:

- The need for the proposed technologies in terms of responding to market opportunities, competitive threats, etc.
- The project's overall objectives.
- The major activities that will be undertaken, in general terms.
- The duration of the project, including proposed start and end dates.
- The project locations.
- The novelty of the technology with respect to advancing the state of the art compared to commercially available technologies.
- The feasibility of the project, including key risks.
- The major equipment requirements and describe how the proposed infrastructure will support innovation activity by project members, and possibly others, after the project is complete.

Describe the economic benefits for Canada that the project is expected to generate, including how this technology is expected to address the areas listed below.

1. The project is expected to be the basis for the next generation of manufacturing and/or services in Canada.
2. The project is expected to enable the applicant to remain or become an internationally competitive OEM or Tier 1 company.
3. The project is expected to enable other private sector project members to be more innovative, productive and competitive.
4. The project is expected to lead to spill-over economic benefits to other corporations in the aerospace, defence, space and security sectors, improving their competitiveness.
5. The project is expected to lead to spill-over economic benefits to other sectors of the Canadian economy, improving their competitiveness.

Describe any other anticipated benefits to Canada that the project is expected to generate, including social, environment, health, security and defence related benefits.

Discuss anticipated benefits to non-industrial project members, including university and college students.

Section 3 – Collaboration

Project members include organizations that undertake R&D and/or contribute financially to the R&D project. Other project members may be added to the project at a later date. This section should clearly identify the project members and their respective contribution to the project. Members are expected to attest to their role and financial contribution to the project.

The information submitted under this section will be used to assess whether members meet the **collaboration** requirements of the program (evaluation criterion #3) and, together with the Applicant, possess the **management and technological capability** to successfully undertake the project (evaluation criteria #5). A Statement of Interest will be rejected if there is not at least one confirmed Canadian-based small or medium-sized enterprise and one Canadian university or college project member.

- For each industrial member provide the legal name, address, incorporation status, public or privately held status, total number of employees and number of employees in Canada. Describe the organization and its area of specialization.
- For each Canadian academic and research institution project member provide the legal name, location, description of the organization, and area of expertise.
- Describe the R&D contribution that the applicant and each project member will make to the project in general terms.
- In the event that there will be R&D undertaken outside of Canada (ineligible project costs), describe the R&D contribution that foreign based project members will make to the project.

Section 4 – Financial Information

The Technology Demonstration Program will award a non-repayable contribution to support large scale projects with significant potential to benefit Canada. The program will cover 50% of total eligible project costs over the multi-year life of a project, up to a maximum of \$54 million. Refer to Annex 3 for a description of the eligible costs and costing principles.

The information provided in this section will be used to assess whether the applicant has the **financial capability** to complete the project and whether significant private sector investment will be **leveraged** by the project (evaluation criterion #6).

Provide the following financial information for the applicant:

- Last three years of annual financial statements: income statements, cash flow statements and balance sheets with notes (audited or Chief Financial Officer - certified).
- Most recent quarterly statements showing year to date results.

Provide information on the project's costs as indicated in the following tables:

Project Costs	
Total Eligible Cost (A)	\$
Total Ineligible Cost (B)	\$
Total Project Cost (C) (A+B)	\$

Eligible Project Costs	
Applicant (D)	\$
Project Member 1 (E)	\$
Project Member 2 (E)	\$
Project Member 3 (E)	\$
Total Eligible Project Cost (A)	\$

Project Sources of Funding	
Applicant Funding (D)	\$
Project Members Funding (E)	\$
Other Government Support (F)	\$
Total Tax Credits (Applicant & members) (G)	\$
TDP Assistance (H)	\$
Total Funding (I) (D+E+F+G+H)	\$
Note: Total funding (I) equals total project cost (C)	

Identify the estimated TDP assistance that the applicant will contractually commit to provide to the project members. The program target is for 50% of the TDP assistance to be allocated by the applicant to the project members.

TDP Assistance to Project Members		
Applicant	\$	%
Project Member 1	\$	%
Project Member 2	\$	%
Project Member 3	\$	%
Total TDP Assistance (H)	\$	100 %

Provide a break-down of the total Eligible Project Cost (A).

Eligible Project Costs by Category						
Direct Labour	Direct Materials	Other Direct	Equipment	Subcontractor	Overhead	Total (A)
\$	\$	\$	\$	\$	\$	\$
Notes: Subcontractor is not a Project Member. Overhead is 75% of direct labour costs.						

Section 5 – Post Project Commitment

The information provided in this section will be used to assess whether the applicant and its members have a credible plan to undertake the follow-on investment required, after project completion, to achieve the anticipated benefits of the project. The information submitted under this section will be used to assess the adequacy of the **post-project commitment** (evaluation criterion #7).

- Describe the key R&D activities, time and financial commitment that the applicant and project members are prepared to undertake, if the project is successful, to develop products, services and processes for commercial exploitation.
- If the project involves an investment in infrastructure that will need to be maintained after the project is complete, identify which organization plans to assume the longer-term operating costs associated with this investment. Identify the estimated annual financial obligation this will entail.

Section 6 – Declaration

The applicant certifies that:

- The information provided in this Statement of Interest is accurate and complete.
- It is in full compliance with all current obligations, financial and otherwise, to federal, provincial and municipal governments.
- The execution of the proposed project will not prevent the applicant from meeting existing obligations in other agreements; and existing obligations in other agreements will in no way preclude the applicant from fulfilling its obligations under the proposed project.
- The work to be performed by the applicant will be performed in accordance with the requirements of all regulatory bodies that have jurisdiction over the applicant on this project.
- It possesses an accounting system that accurately tracks and records project costs (particularly hours of direct labour) associated with the performance of the project and it shall be able to demonstrate in sufficient detail the allocation of time spent on different projects.
- It is in full compliance with the Lobbying Act.

Confidentiality Considerations

The applicant understands that no commercially confidential information provided in this Statement of Interest and attachments will be disclosed other than:

- to other Canadian government departments or agencies involved in the governance, funding or assessment of the proposal;
- as required to be released or disclosed by law or in a judicial or other governmental investigation or proceeding;

- if the information is generally known or in the public domain at the time of the applicant's disclosure;
- if the information subsequently becomes a matter of public knowledge through no fault of the Minister; or
- if the information is required to be released by the Minister of Industry to an international or internal trade panel for the purposes of the conduct of a dispute in which Canada is a party or a third-party intervener.

Once funding is approved, information such as the amount of funding, the purpose for which the funds were provided, descriptive information about the project, and the name of the organizations receiving the funding are considered public information and will be published by Industry Canada.

The applicant understands that the TDP is a discretionary program subject to available funding, and that submission of a Statement of Interest, meeting any or all of the assessment criteria, or responding to requests from program officers for further information in respect of a Statement of Interest, does not mean that assistance will be granted. All applicants whose projects are approved for assistance will be so notified in writing.

By signing below, the applicant attests, to each of the certifications outlined above.

Full Corporate Name of applicant

Name of Authorized Signing Authority

Title of Authorized Signing Officer

Signature of Authorized Signing Officer

Date

Complete Statement of Interest

Industry Canada will only assess your Statement of Interest if it satisfies the eligibility requirements and includes the required information.

Eligibility Requirements

1. Statement of Interest is received no later than the due date, as specified herein.
2. Statement of Interest conforms to the guidelines described herein.
3. Applicant is an OEM or a Tier 1 company supplying directly to an OEM.
4. Applicant is a for-profit corporation, incorporated pursuant to the laws of Canada and carrying on business in Canada.
5. At least one small or medium-sized enterprise Canadian enterprise (fewer than 500 employees), incorporated pursuant to the laws of Canada and carrying on business in Canada, is confirmed as a project member.
6. At least one accredited Canadian university, college or affiliated research institute is confirmed as a project member.

Required Information

1. A letter of commitment from each project member indicating that it agrees with its proposed role and financial contribution to the project.
2. Financial information for the applicant:
 - Last three years of annual financial statements: income statements, cash flow statements and balance sheets, with notes (audited or CFO-certified).
 - Most recent quarterly statements showing year to date results.
 - Forecast annual income statements and cash flows for the R&D phase (hard copy and Excel spreadsheet).
3. Lobbying Act Documents (www.ocl-cal.gc.ca)
 - List of employees and consultants who are representing the applicant in discussions with Government of Canada officials about the Statement of Interest.
 - Printout from the Lobbyist Registration System confirming registration of employees and consultants who must be registered under the *Lobbying Act*.
 - Explanation of why employees and consultants representing the applicant in discussions and who are not included on the printout of registered lobbyists do not need to be registered.

Annex 1 – Evaluation Criteria

1. Economic Benefits to Canada

- The applicant must demonstrate that the project is expected to benefit the lead corporation and each of the members of the project, be the basis for the next generation of manufacturing and/or services in Canada, and generate material economic benefits for Canada in the longer term.

2. Broader Benefits to Canada

- The applicant must demonstrate whether the project is expected to generate social, environmental, health, security or other benefits to Canada.

3. Collaboration

- The project must be led by an OEM or a Tier 1 company.
- The project must include at least one Canadian-based small or medium-sized enterprise and one accredited Canadian university, college or affiliated research institute.

4. Innovation

- The applicant must demonstrate that the project is technologically feasible; that it can reasonably be expected to result in new technological capabilities that are essential to achieving the proposed benefits.

5. Management and Technological Capability

- The applicant must demonstrate that the lead corporation and the project members have the required managerial and technological capability and track record to successfully undertake the project.

6. Financial Capability

- The applicant must show that the lead corporation and its members have the financial capability to complete the project.
- The applicant must demonstrate that funding by the Technology Demonstration Program will lever incremental private sector investment in R&D.

7. Post-Project Commitment

- The applicant must show a commitment on the part of the lead corporation and its project members to further develop the technology for potential commercialization and sustain the infrastructure after project completion.

Annex 2 – Technology Readiness Level (TRL) Scale

Technology Readiness Level	Description
TRL 1 Basic principles observed and reported	Lowest level of technology readiness. Scientific research begins to be translated into applied research and development (R&D). Examples might include paper studies of a technology's basic properties.
TRL 2 Technology concept and/or application formulated	Once basic principles are observed, practical applications can be invented. Applications are speculative, and there may be no proof or detailed analysis to support the assumptions. Examples are limited to analytic studies.
TRL 3 Analytical and experimental critical function and/or characteristic proof of concept	Active R&D is initiated. This includes analytical studies and laboratory studies to physically validate that the analytical predictions are correct. These studies and experiments should constitute proof of concept validation of the applications/concepts formulated at TRL 2.
TRL 4 Component and/or breadboard validation in laboratory environment	Basic technological components are integrated to establish that they will work together. This validation is relatively "low fidelity" compared with the eventual system. Examples include integration of "ad hoc" hardware in the laboratory.
TRL 5 Component and/or breadboard validation in relevant environment	Fidelity of breadboard technology increases significantly. The basic technological components are integrated with reasonably realistic supporting elements so they can be tested in a simulated environment. Examples include "high-fidelity" laboratory integration of components.
TRL 6 System/subsystem model or prototype demonstration in a relevant environment	Representative model or prototype system, which is well beyond that of TRL 5, is tested in a relevant environment. Represents a major step up in a technology's demonstrated readiness. Several to many new technologies might be integrated into the demonstration. Examples include testing a prototype in a high-fidelity laboratory environment or in a simulated operational environment.
TRL 7 System prototype demonstration in an operational environment.	Prototype near or at planned operational system. Represents a major step up from TRL 6 by requiring demonstration of an actual system prototype in an operational environment (e.g., in an aircraft, in a vehicle, or in space).
TRL 8 Actual system completed and qualified through test and demonstration.	Technology has been proven to work in its final form and under expected conditions. In almost all cases, this TRL represents the end of true system development. Examples include developmental test and evaluation (DT&E) of the system in its intended system to determine if it meets design specifications.
TRL 9 Actual system proven through successful mission operations.	Actual application of the technology in its final form and under mission conditions, such as those encountered in operational test and evaluation (OT&E). Examples include testing the system under operational mission conditions.

Source: Based on the NASA TRL system.

Annex 3 – Cost Principles, Eligible and Non eligible costs

1. GENERAL PRINCIPLE

The Eligible Costs of the Project must be the sum of the applicable direct and indirect costs which, in the opinion of the Minister, are or must be reasonably and properly incurred and/or allocated, in the performance of the Project. These costs must be determined in accordance with the Recipient's cost accounting practices as accepted by the Minister and applied consistently over time.

2. REASONABLE COSTS

A cost is reasonable if the nature and amount do not exceed what would be incurred by an ordinary prudent person in the conduct of a competitive business.

In determining the reasonableness of a particular cost, consideration will be given to:

- whether the cost is of a type generally recognized as normal and necessary for the conduct of the Recipient's business or performance of the Project;
- the restraints and requirements by such factors as generally accepted sound business practices, arm's length bargaining, federal, provincial and local laws and regulations, and Agreement terms;
- the action that prudent business persons would take in the circumstances, considering their responsibilities to the owners of the business, their employees, customers, the Government and public at large;
- significant deviations from the established practices of the Recipient which may unjustifiably increase the Eligible Costs; and
- the specifications, delivery schedule and quality requirements of the particular Project as they affect costs.

AFFILIATED PERSONS

In the case of Eligible Costs incurred with an Affiliated Person, the amount of the costs incurred must be adjusted as follows:

- The cost of those goods or services must not exceed their Fair Market Value;
- If there is no Fair Market Value for the applicable goods or services, the Fair Market Value of Similar Goods must be used;
- If there is no Similar Good, Cost Plus Method (as described below) must be used to determine the cost.

The Cost Plus Method means the sum of applicable direct and indirect costs, as described below in sections 4 and 5, all as determined and measured consistently in accordance with International Financial Reporting Standards that were reasonably

incurred or allocated in the performance of the Statement of Work plus Profit, as determined below.

Once the sum of those direct and indirect costs is determined ("Total Cost"), profit is calculated at five percent (5%) of the Total Cost.

Accordingly, the Cost Plus Method is equal to Total Cost plus Profit of five percent (5%).

3. METHODOLOGY TO DETERMINE THE DIRECT AND OVERHEAD COSTS

The Eligible Costs of the Project are those direct and indirect (overhead) costs, which, in the opinion of the Minister, are reasonably and properly incurred and allocated, to the performance of the Project.

4. DIRECT COSTS

There are four categories of direct costs:

Direct Labour Costs meaning the costs of the portion of gross wages or salaries incurred for activities which can be specifically identified and measured as having been incurred or to be incurred in the performance of the Project and which are so identified and measured consistently by the Recipient's cost accounting practices as accepted by the Minister.

Direct Materials Cost meaning the cost of materials which can be specifically identified and measured as having been used or to be used in the performance of the Project and which are so identified and measured consistently by the Recipient's cost accounting practices as accepted by the Minister.

These materials may include, in addition to materials purchased solely for the performance of the Project and processed by the Recipient, or obtained from subcontractors, any other materials issued from the Recipient's general stocks.

Materials purchased solely for the performance of the Project or subcontracts must be charged to the Project at the net laid down cost to the Recipient, before any discounts for prompt payment.

Materials issued from the Recipient's general stocks must be charged to the Project in accordance with the method as used consistently by the Recipient in pricing material inventories.

Other Direct Costs meaning those applicable costs, not falling within the categories of direct material or direct labour, but which can be specifically identified and measured as having been incurred or to be incurred in the performance of the Project activities and which are so identified and measured consistently by the Recipient's cost accounting practices as accepted by the Minister.

Equipment Costs means equipment, including ancillary systems, instrumentation, or special test equipment that is purchased, leased, manufactured or otherwise acquired for the purposes of the Project.

5. INDIRECT COSTS (OVERHEAD)

Indirect Costs (overhead) meaning those costs which, though necessarily having been incurred during the period of the performance of the Project activities for the conduct of the Recipient's business in general, cannot be identified and measured as directly applicable to the performance of the Project. **Indirect costs shall be calculated at a rate of 75% of Direct Labour Costs.**

These Indirect Costs may include, but are not necessarily restricted to, such items as:

- indirect materials and supplies (For supplies of similar low-value, high-usage items the costs of which meet the above definition of Direct Material Costs but for which it is economically expensive to account for these costs in the manner prescribed for direct costs, then they may be considered to be indirect costs for the purposes of the Project);
- indirect labour;
- fringe benefits;
- public services expenses: expenses of a general nature such as power, heat, light, operation and maintenance of general assets and facilities;
- fixed/period charges: recurring charges such as property taxes, rentals and reasonable provision for depreciation costs;
- general and administrative expenses: including remuneration of executive and corporate officers, office wages and salaries and expenses such as stationery, office supplies, postage and other necessary administration and management expenses;

6. NON-ELIGIBLE COSTS

Despite that the following costs may have been or may be reasonably and properly incurred by the Recipient in the performance of the Project, they are considered non-eligible costs to the Project:

- (a) allowance for interest on invested capital, bonds, debentures, bank or other loans together with related bond discounts and finance charges;
- (b) legal, accounting and consulting fees in connection with financial reorganization, security issues, capital stock issues, obtaining of licenses and prosecution of claims against the Minister;
- (c) losses on investments, bad debts and expenses for the collection charges;

- (d) losses on other projects or contracts;
- (e) federal and provincial income taxes, goods and services taxes, excess profit taxes or surtaxes and/or special expenses in connection with those taxes;
- (f) provisions for contingencies;
- (g) premiums for life insurance on the lives of officers and/or directors where proceeds accrue to the Recipient;
- (h) amortization of unrealized appreciation of assets;
- (i) depreciation of assets paid for by the Minister;
- (j) fines and penalties;
- (k) expenses and depreciation of excess facilities;
- (l) unreasonable compensation for officers and employees;
- (m) product development or improvement expenses not associated with the work being performed under the Project;
- (n) advertising, except reasonable advertising of an industrial or institutional character placed in trade, technical or professional journals for the dissemination of information for the industry or institution;
- (o) entertainment expenses;
- (p) donations except those to charities registered under the *Income Tax Act*;
- (q) dues and other memberships other than regular trade and professional associations;
- (r) fees, extraordinary or abnormal for professional advice in regard to technical, administrative or accounting matters, unless approval from the Minister is obtained;
- (s) any cost relating to land or buildings; and
- (t) selling and marketing expenses associated with the products or services or both being developed under the Agreement.

Notwithstanding section 6(b) above, legal, accounting and consulting fees in connection with the obtaining of patents and statutory protection of other elements of the Intellectual Property are Eligible Costs.