



Strategic Aerospace and Defence Initiative



Program Guide



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Cat. No. Iu159-5/2016E-PDF
ISBN 978-0-660-05811-5

Aussi offert en français sous le titre *Initiative stratégique pour l'aérospatiale et la défense (ISAD) — Guide de Programme*

What is the Strategic Aerospace and Defence Initiative?

The Strategic Aerospace and Defence Initiative (SADI) was launched in 2007. It provides repayable contributions to support research and development (R&D) projects in the aerospace, space, defence and security (A&D) sectors. SADI is available to firms of all sizes to support product, service or process innovation.

SADI has three objectives:

- to encourage strategic R&D that will result in innovation and excellence in new or improved products, services and processes;
- to enhance the competitiveness of Canadian A&D companies; and
- to foster collaboration between research institutes, universities, colleges and the private sector.

The program is managed by Innovation, Science and Economic Development Canada's Industrial Technologies Office.

Who is eligible to apply?

Eligible Recipient

The applicant must be a for-profit corporation—small, medium or large-sized—incorporated pursuant to the laws of Canada and carrying on business in Canada. The Applicant may scope the project to include any number of partners or subcontractors. At least 1% of total eligible project costs must be allocated to post-secondary education institutions in Canada.

A Contribution Agreement will be signed between the applicant and the Crown (at which point the applicant becomes a Recipient). The Recipient is responsible for managing the project, submitting claims, receiving the government contribution and reporting on results.

What is an eligible project?

- 1) The project must involve one or more R&D activities in Canada that:
 - a) support the development of next-generation A&D-related products, services or processes;
 - b) build on Canadian strengths in A&D technology development;
 - c) enable Canadian companies to participate in major platforms and supply chains;
or
 - d) assist the sector in achieving Canada's international obligations.

- 2) The project must comprise either industrial research or pre-competitive development:
 - a) **Industrial research** means planned research or critical investigation aimed at discovery of new knowledge, with the objective that such knowledge may be useful in developing new products, processes or services, or in bringing about a significant improvement to existing products, processes or services.
 - b) **Pre-competitive development** means the translation of industrial research findings into a plan, blueprint or design for new, modified or improved products, processes or services whether intended for sale or use, including the creation of a first prototype. It may further include the conceptual formulation and design of products, processes or services and of initial demonstration or pilot projects.

Pre-competitive development does not include:

- (1) initial demonstration or pilot projects if these are used for industrial application or commercial exploitation; or
 - (2) routine or periodic alterations to existing products, production lines, manufacturing processes, services, and other on-going operations even though these alterations may represent improvements.
- 3) Activities can be anywhere along the Technology Readiness Level (TRL) 1-9 scale. See the annex for a description of the TRL scale.
 - 4) SADI support must be essential to the location, scope, and/or timing of the project.
 - 5) Other considerations:
 - a) The Recipient must have sufficient resources to fund the R&D which typically covers a 5 year period, and then submits claims for reimbursement. The program supports **40%** of total eligible project costs.
 - b) There is no minimum or maximum SADI contribution;
 - c) Eligible costs may include labour, material, overhead, specialized equipment and other costs related to the project. The overhead rate is **75%** of the direct labour costs.
 - d) Total combined government funding (federal, provincial, municipal, tax credits) cannot exceed **75%** of eligible costs.
 - e) The amount of repayment is based on risk as assessed by the Industrial Technologies Office during the application process. It is either conditional based on the company's Gross Business Revenues or unconditional based on agreed annual amounts. The 15 year repayment period commences **2** years following the end of the R&D phase.

- f) The SADI program supports projects under the Defence Development Sharing Agreement (DDSA) with the United States Department of Defense and the multi-national Joint Strike Fighter (JSF) program. SADI typically contributes 40% of eligible project costs. Applicants who qualify for funding under the Joint Strike Fighter program may be eligible for repayment based on Gross Product Revenues should they have a contract or letter of intent in place to supply the Joint Strike Fighter program with the subject technology or process. Nominal repayment (i.e. 100% of amounts disbursed) for Joint Strike Fighter projects is over 20 years. Nominal repayment for DDSA projects is over 15 years.

What is the application and approval process?

The process for approving applications for funding from SADI comprises three phases:

1. Submission of the proposal
2. Due diligence review
3. Project approval

1. Submission of the proposal

The Industrial Technologies Office accepts project proposals at any time. There are no submission deadlines. Refer to the [SADI Application Form](#) for details.

Industrial Technologies Office officials screen each proposal they receive to ensure that the applicant and project meet the eligibility requirements and that the proposal contains adequate information upon which to start a due diligence review.

The Industrial Technologies Office provides feedback to the applicant to give them the opportunity to complete the application form. Once deemed complete, the due diligence review begins.

At this point, Applicants receive a letter confirming the Eligible Costs date. This is the date on which the proposal is deemed complete and ready for the in-depth due diligence review. Applicants may incur up to 20 percent of eligible project costs between the Eligible Costs date and the date the Contribution Agreement is signed. The Industrial Technologies Office will not reimburse applicants for any eligible costs should their proposal be rejected after the due diligence review or should the Contribution Agreement not be signed, for whatever reason.

The eligible costs date is the point at which ITO commences its application processing service standard. For a contribution of less than \$10 million, the service standard is 6 months; 4 months if the contribution is less than \$2 million and the applicant has less than 100 employees.

Once the contribution agreement is signed, recipients may submit claims for eligible project costs in accordance with the terms of their contribution agreement.

2. Due diligence

The Industrial Technologies Office ensures that projects meet the evaluation criteria. Site visits by Industrial Technologies Office officials and third-party technical and market experts with the applicant may be required. The applicant may provide the names and resumes of up to three technical reviewers for consideration by the Industrial Technologies Office. The Industrial Technologies Office reserves the right to select the technical experts who will perform the due diligence.

3. Project approval

Following due diligence, applicants will be informed of the status of their proposal. The Minister of Innovation, Science and Economic Development will exercise his or her discretion on which project to fund. The Minister will seek Treasury Board and Cabinet approval prior to authorizing contributions in excess of \$50 million.

Following project approval, a Contribution Agreement will be prepared for signature by the successful applicant (now known as the Recipient) and the Crown laying out the respective legally binding responsibilities and obligations of both parties. Refer to the [SADI Contribution Agreement template](#).

What are the evaluation criteria?

The purpose of the due diligence is to determine whether a project meets the following criteria.

Technological feasibility and capability

The proposal must demonstrate that the project is technologically feasible, and set out a plan that shows a clear understanding of the activities and resources required to achieve each of the objectives in the Statement of Work. The proposal must also outline technological risks and risk mitigation strategies.

Managerial capability

The proposal must demonstrate that the applicant has the required managerial capability in the core areas of project management, technology management, and financial planning and controls to successfully undertake the project.

Collaboration

The applicant must have a plan to collaborate with Canadian accredited post-secondary education institutions and allocate a minimum of 1% of total eligible project costs.

Market potential

The proposal must demonstrate that the applicant has a credible strategy to exploit the proposed technology or service in the marketplace upon completion of a successful R&D project.

Financial Information

The proposal must clearly demonstrate that the applicant has, or can reasonably be expected to obtain, the financial resources to complete the project and repay the Crown.

Benefits

The proposal must demonstrate that the project is expected to enhance the competitiveness of the applicant and generate broader economic and social benefits for Canada.

What are the reporting requirements during and after the project?

R&D Phase

During the R&D phase, the Recipient must submit financial claims for reimbursement of eligible costs incurred on a monthly or quarterly basis. With each financial claim, the Recipient must provide a report that documents the progress of the project.

Project review meetings will take place at least once a year at the Recipient's location. Additional project reviews may be scheduled at the discretion of the Industrial Technologies Office based on risk, size of the project or other factors.

On a yearly basis, the Recipient will be required to provide a report on progress being made toward achieving the outcomes and benefits associated with the project.

Post-Project Phase

The Recipient will participate in program evaluations, case studies or other efforts required to assess the overall value and effectiveness of SADI. The Recipient shall provide annual financial statements. Annually, the Recipient shall provide a forecast of its annual repayments due.

Other important information

Applicants should read and consider all the following information prior to submitting a proposal.

Lobbying Act

The Applicant must comply with the Lobbying Act throughout the application process and the life of any SADI-funded project. Prior to communicating with Industrial Technologies Office about an application please review the provisions of the Act. For more information on lobbying and the *Lobbying Act*, consult the Office of the Commissioner of Lobbying of Canada.

Security of company information

SADI will not disclose to any party outside of the federal government (other than external parties retained to review technical aspects of a proposal) any commercially confidential information an applicant submits, except in the following circumstances:

- The company authorizes the release;
- Innovation, Science and Economic Development Canada is required by law to release the information;
- The information ceases to be confidential;
- The Minister of Innovation, Science and Economic Development is required to release the information to an international or internal trade panel due to a dispute in which Canada is a party or a third-party intervener.

Applicants must mark any commercially confidential information in its proposal as such. SADI applicants may also wish to become familiar with the terms of the Access to Information Act, which governs the release of information held by federal organizations.

International agreements

SADI is administered according to Canada's international agreements. SADI contributions are not contingent, in law or in fact, on actual or anticipated export performance.

Contact information

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Annex - 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	Invention begins. 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 the analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative.
TRL 4 Component and/or breadboard validation in laboratory environment	Basic technological components are integrated to establish that they will work together. This 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. 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 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.

Based on the NASA TRL System